

**Global Carbon Capture and Storage Institute
GCCSI**

**Proceedings of the inaugural
Foundation Members Meeting**

**16 and 17 April 2009
Canberra, Australia**

Summary

Introduction

On 19 September 2008 the Prime Minister of Australia, the Hon Kevin Rudd MP announced the Global Carbon Capture and Storage Institute (GCCSI). The GCCSI's mandate builds upon the July 2008 Group of Eight (G8) need to commit to at least 20 fully integrated industrial-scale demonstration projects by 2010 to enable the broad deployment of CCS technology by 2020.

The GCCSI will be headquartered in Canberra, Australia and the Australian Government will contribute up to AUD\$100 million per annum for its operations and work programs. Its objective is to become the global 'go to' place for CCS project proponents and developers, researchers, financiers and governments. By focussing on the global commercialisation of CCS, and sharing learnings, resources and experience with stakeholders, the GCCSI seeks to consolidate a reputation for independence and global influence.

The GCCSI's prime role will be the support for and acceleration of key, large-scale, integrated CCS projects globally. In doing so, it also needs to address the enabling conditions such as capacity building, technology transfer, regulatory frameworks, R&D needs and, most critical, creating the conditions for the understanding and community acceptance of CCS.

Meeting

The inaugural meeting of the GCCSI Foundation Members on 16 and 17 April 2009 attracted 195 attendees including representatives from 19 national Governments, 5 Australian State Governments, 35 corporations, NGOs and trade associations. At the meeting on 16 April, the Prime Minister of Australia the Hon Kevin Rudd MP officially launched the GCCSI. He stated that the GCCSI is a major initiative to drive global cooperation to deploy technologies that can play a very important part in the transition to a low carbon economy of the future, and its work carries a measure of urgency to do so.

The meeting focused on three issues: the GCCSI work plan, the international architecture and collaboration on CCS, and the legal, governance and staffing structures for the GCCSI. The governance structure and permanent staffing profiles are in response to the identified skills needs and the need to interface on CCS matters at the consultative, managerial and operational levels.

There was strong support for the mandate of the GCCSI with the meeting emphasising the role of the GCCSI in accelerating large scale CCS projects. Representatives supported the current GCCSI work plan which lays the foundations to drive CCS demonstration projects, support CCS uptake globally and build CCS capability. The plan included significant levels of engagement with CCS projects and the global CCS sector in general - the early movers, those who are CCS or Capture Ready and those sectors that could potentially deliver the greatest acceleration. Further work in the plan also includes the delivery of key commissioned reports and the provision of other support services through funding and sponsorship agreements.

Knowledge management and Intellectual Property Rights were reoccurring themes of the discussion. Representatives underlined need to strike the right balance between information dissemination and commercial sensitivities.

The meeting heard directly from the International Energy Agency (IEA) and the Carbon Sequestration Leadership Forum (CSLF) on complementary activities and the intentions to work cooperatively to achieve common goals. Speakers emphasised the synergies and the enhanced project acceleration potential that this collaboration could achieve.

Next steps

The clear mandate for the GCCSI is to:

- engage with CCS project proponents;
- deliver key GGCSI reports such as the global status and case studies and the CCS portfolio definition;
- progress studies and workshops on non-proprietary knowledge sharing and community outreach activities;
- establish funding agreements and sponsorship opportunities with organisations with the common aim of accelerating early large scale integrated demonstration (including Asian Development Bank, the Clinton Foundation, the Climate Group, and the European Commission together with the European Technology Platform for Zero Emission Fossil Fuel Power Plants (ZEP)) and building capacity to deploy CCS with such organisations as the International Energy Foundation (IEF), South African National Energy Research Institute (SANERI), the Commonwealth Scientific and Industrial Research Organisation (CSIRO), and the Geological Storage of CO₂ European Network of Excellence (CO₂ GeoNet);
- establish the GCCSI as a not-for-profit company limited by guarantee, based on the staffing and governance arrangements outlined at the meeting. Processes to select the CEO, establish the Board, and recruit appropriate staff have commenced; and
- expand CCS stakeholder engagement and foundation membership.

LAUNCH OF THE GCCSI

The Foundation Members meeting was preceded by the formal launch of the GCCSI by the Prime Minister of Australia the Hon Kevin Rudd MP.

The Prime Minister's speech is at:

http://www.pm.gov.au/media/Speech/2009/speech_0914.cfm and the media release

<http://www.ret.gov.au/resources/Documents/gccsi/GCCSI%20Launch%20-%20PM%27s%20Media%20Release.pdf>.

Media press coverage of the launch appeared in a number of newspapers and television channels. Other international agencies have reported coverage overseas. At the time of the launch there were 85 Foundation Members and collaborating partners. Over 60 companies and NGOs have signed up as the GCCSI Foundation Members.

A list of current representatives is at:

<http://www.ret.gov.au/resources/Documents/gccsi/GCCSI%20Foundation%20Members.pdf>).

OUTLINE OF SESSIONS

Thursday, 16 April

Introduction and Overview

The GCCSI Interim CEO Nick Otter provided an overview of the progress and objectives of the Foundation Members meeting and the objective for the GCCSI over the next five years. Particular points included:

- International Panel on Climate Change (IPCC) projections requiring a reduction of 50 to 80 per cent of CO₂ emissions by 2050 from business as usual projections;
- the role of CCS as a critical response measure along with others such as renewables;
- the GCCSI's principal aim to accelerate the deployment of large scale demonstration projects by 2020 in line with the G8 directive of June 2008;
- the GCCSI as a global institute, notwithstanding its geographic location, based on a not-for-profit company structure limited by guarantee;
- profile of current Foundation Member group: industry 50 per cent, country/regions/states 29 per cent, institutes/consultancies 10 per cent, trade grouping 7 per cent, and financial institutions 4 per cent. Within the industry group fuel suppliers made up 33 per cent, equipment suppliers 25 per cent, generators 22 per cent, industrial sector 14 per cent and others 6 per cent;
- ongoing process of securing additional members who will bring value to the GCCSI;

- the importance of knowledge sharing and the challenges of commercial conflicts;
- critical international meetings for CCS issues and the GCCSI representation:
 - CCS Ministers Meeting - Bergen - May 2009;
 - G8 + 5 Ministers Meeting – Italy - July 2009;
 - CSLF and IEA Ministers Meetings – London - October 2009; and
 - COP/MOP - Copenhagen - December 2009.
- the GCCSI will initially focus on:
 - accelerating demonstration projects by establishing strategic partnerships with project developers; and defining an accepted position for the GCCSI;
 - developing consensus on knowledge sharing;
 - financing a range of supporting projects including commissioning a series of linked reports to establish a baseline status of CCS demonstration projects; and
 - strategic partnerships and alliances with other organisations, such as the CSLF, IEA, Clinton Foundation, Climate Group and to maintain continuity with these groups as the GCCSI evolves as a private sector entity.

Mr Otter's presentation is at **Attachment A**.

Securing Global Projects and the GCCSI support projects:

Mr Otter restated the mandate and objectives of the GCCSI and refocused the meeting on the GCCSI's immediate work program. He reinforced the GCCSI's need to set the right trajectory for the next five years to: drive the development of CCS demonstration projects through key partnerships and strategic alliances; support the global uptake of CCS more effectively; and build capacity.

To achieve these objectives the GCCSI is commissioning a number of deliverables:

- a Baseline Study – a comprehensive analysis of the global status of CCS and how impediments are influencing project decisions;
- a Global Portfolio Project - a report detailing the desired portfolio of project types and the rationale for project support;

plus work supporting oriented work of

- a definition of 'CCS Ready' – a project to develop a harmonised definition of CCS readiness and best practice guidelines; and
- the Global CO₂ Storage Atlas – a comprehensive global compendium of CO₂ storage opportunities.

The work program will be supported by the GCCSI funded workshops in strategic regions and countries in 2009 and 2010 and by partnering with early mover project developers to facilitate the dissemination of non-proprietary knowledge and broaden public acceptance of CCS activities.

Mr Otter's presentation is at **Attachment B**.

Facilitated Breakout Session

Six separate groups were facilitated to acquire feedback on foundation issues. These issues are broadly summarised by the following points:

- Will the GCCSI's broad approach be effective in identifying CCS projects it should support and the specific actions it should undertake?

The general endorsement of the GCCSI's work program was qualified in the breakout sessions by the affirmation that the GCCSI's work had to materially contribute to the implementation of projects. In particular, there was the need to identify gaps that could deter projects and to undertake activities to address those gaps.

- What role can the GCCSI play to benefit project proponents and accelerate CCS projects, particularly during the GCCSI's establishment?

It was well understood in breakout discussions that acceleration of technology deployment was the key outcome but this had to be with due regard for certain factors, principally a range of international and country-specific policy frameworks.

- What follow-on projects should be commissioned once the current support activities and commissioned studies are delivered, how the current activities may be refined and what key bodies should be involved in current and future projects?

While the GCCSI's principal focus had to be the large-scale commercial projects, the GCCSI should not lose sight of small and medium projects that could come behind these. Some saw the need for a global roadmap to incorporate the work of other groups operating in this area. Other suggestions included the dissemination of lessons learned and the development of toolkits on investment, risk and other matters.

The synthesis of breakout discussions is presented at **Attachment C**. This summary covers the prevalent issues raised by representatives and may not cover all of the matters noted by group members.

One of the clearest messages delivered by representatives at the meeting was that the GCCSI primary commitment is accelerating to CCS projects. This is a reinforcement of its key mandate as expressed in its objectives (which were endorsed by the meeting):

- accelerate the global adoption of safe, commercially and environmentally sustainable CCS, from demonstration to up-scaling of projects;

- drive co-operation to deliver a diverse portfolio of 20+ fully integrated industrial scale demonstration projects by 2020;
- work in concert with existing bodies to overcome barriers to broad industrial scale deployment of CCS;
- be responsible for effective sharing of non-proprietary knowledge of CCS among shareholders and interested parties; and
- promote community outreach to expand global, regional and local acceptance and understanding of CCS benefits and its potential to abate emissions.

Emphasis was placed on the core elements of the GCCSI's initial work plan and the priority of project acceleration by making the most of early opportunities and creating maximum visibility of its work through:

- baseline of CCS projects;
- direct association with 'live' CCS projects;
- knowledge sharing and acceptance;
- forming strategic alliances and partnerships; and
- making optimal use of the new Board in an advocacy role for shaping the strategic international framework to advance CCS awareness and uptake.

Making CCS projects happen

The CCS International Architecture – The GCCSI working with others

The panel discussion was moderated by Mr Otter, Mr Victor Der, Chair, CSFL Technical Group and Principal Deputy Assistant Secretary, Office of Fossil Energy, Department of Energy, United States; and Mr Richard Jones, Deputy Executive Director, International Energy Agency. It contextualised the CCS project acceleration objectives with ongoing roles of the GCCSI, CSLF and IEA.

Mr Otter outlined the international context for the GCCSI membership and that of the IEA / OECD and CSLF membership, recognising that it was important to define and agree the role of the GCCSI in the international CCS landscape. He reinforced that the GCCSI can assist the expansion of the capacity of the CSLF and IEA, and the CCS arena more broadly, with both critical funding and resourcing, and through strategic partnerships and alliances.

The GCCSI's initial and long-term work program would focus directly on driving key G8 recommendations (such as knowledge sharing; global public advocacy of CCS; and storage site identification) where appropriate as part of its principal aim of accelerating demonstration projects worldwide.

Mr Otter restated the primary work themes for the GCCSI – driving CCS project development, supporting CCS uptake globally and building CCS capability. To support these themes the GCCSI was working to define an accepted definition of CCS and to develop and fund relevant supporting work.

Mr Otter's presentation is at **Attachment D**.

Mr Victor Der discussed the role of governments in regulatory frameworks and storage monitoring and the value of learning through the 'doing' of demonstration project work. He acknowledged that we must get it right in order to convince the public on the viability and safety of CCS, and to accelerate CCS around the world. However, he recognised that each country would have its own approach to projects and funding. For example the United States is providing US\$3.4 billion in stimulus funding for carbon sequestration projects and technology development. Mr Der saw opportunity and value in the GCCSI being a clearing house for project experiences and lessons learnt.

Mr Richard Jones discussed the relevance of the past and present role of the IEA and its involvement in the G8 meeting of June 2008, in the fields of energy and CCS. He outlined the ongoing and planned work program of the IEA, stressing the importance of international cooperation and collaboration between global stakeholders.

Mr Jones' presentation is at **Attachment E**.

GCCSI Partnerships and Alliances

The GCCSI's Interim Deputy CEO, Bob Pegler described the GCCSI's objective of strategically partnering and allying itself with governments, international bodies, companies, NGOs and other organisations that share the GCCSI's primary focus on accelerating the development and deployment of CCS demonstration projects. Mr Pegler reinforced that while the GCCSI would partner to drive forward the 20 plus industrial scale CCS demonstration projects by 2020, it would also partner with the smaller test bed, technological development and non-industrial scale project proponents that are essential for developing second and third generation projects. The GCCSI recognises that not all projects would proceed, or proceed at the same pace, and that the GCCSI needed to focus on both the 'easy' projects as well as the harder and longer term projects.

Mr Pegler restated that to drive forward demonstration projects, it is necessary to share learnings and knowledge, undertake capacity building and to build community awareness. This strategic direction would include partnering to fund specific R&D to address impediments to specific projects.

The GCCSI will partner with organisations at specific levels (such as the IEF, SANERI, EC/ZEP or CSIRO) for projects on enhanced oil recovery, public awareness, a global storage atlas and enhanced communication networks. While the GCCSI was already working towards with organisations like the CSLF and IEA, Mr Pegler emphasised that the GCCSI will partner with a range of companies and /or consortia to accelerate projects.

Mr Pegler's presentation is at **Attachment F**.

Partnerships – Task for Table Discussion

Representatives held table discussions to identify other groups, entities and organisations with which the GCCSI should engage and form partnerships, and specific reasons for doing so.

Table sessions identified a considerable range of potential partners and feedback was grouped into the general themes of:

- financial bodies;
- research organisations;
- non-government organisations;
- international organisations;
- industry bodies;
- regional bodies;
- national entities; and
- companies.

There was strong recognition of the need to partner with those companies or organisations: operating in specific sectors (such as the financial or heavy industry sectors), with specific skill sets (legal or regulatory), with capacity to undertake for the GCCSI (such as the involved in R&D), or on which the CCS burden primarily rests (power generation). It is also crucial to partner with countries and national governments of critical importance to the success of CCS.

The groups identified by the representatives reflect both regional experience and those who, most readily, may influence government and company executive decisions to bring forward project investment internationally.

The research sector was the most commonly referenced sector for the GCCSI to partner with. This recognised the high quality R&D that was already being commissioned or undertaken internationally and is in line with the recommendation that the GCCSI should not undertake R&D itself. The Research sector was closely followed by the financial sector, in recognition that the long term impediment of risk facing companies (insurance) and that investment in a large scale CCS project is, at this time, not financially profitable.

Suggested partners from the discussions are identified at **Attachment G**.

Securing global projects and the GCCSI support projects – Knowledge Sharing and Harnessing Community Support

In the final session of the day, Mr Pegler drew attention to the value of knowledge sharing to accelerate deployment of demonstration projects by:

- driving development of CCS demonstration projects;
- supporting CCS uptake globally; and
- building CCS capability.

The first point will be delivered through coordinated actions and co-operation to deliver a diverse portfolio of 20 plus, fully integrated industrial scale demonstration projects by 2020. These projects would be across a range of emitters and technologies and along the entire capture, transport and storage chain.

A report will be commissioned to analyse the 'real' baseline of CCS demonstration projects as of April 2009, taking into account the effect of global financial crisis and identifying 'targets'. This report will consist of five inter-related reports that will:

- detail the current status of CCS demonstration projects;
- cost structure of CCS technologies and projects;
- analysis of existing CCS policies globally;
- the current CCS R&D networks including identification of technical gaps; and
- comprehensive assessment of the gaps and barriers between existing CCS projects and the demonstration of large scale CCS projects.

The baseline report along with a separate report to characterise a desired portfolio of CCS project types and the 'rationale for support' and a series of workshops in strategic regions/countries through 2009-2010, will lead to project support recommendations being put to a GCCSI board for approval.

These activities will be complemented by early targeted project specific activities with Foundation Members and early mover projects.

Knowledge sharing and community outreach (although discussed later in the agenda) will be critical in accelerating the deployment of CCS projects. Workshops to develop a GCCSI knowledge sharing platform will be conducted in the third quarter of 2009, potentially in a range of different countries.

With regard to community outreach the GCCSI has initiated a stream of work to:

- identify key learnings from previous work and identifies best practices;
- develop tool for site characterisation based on social characteristics;
- develop tool for communicating the results of risk assessments; and
- provide advice on frameworks for developing effective awareness activities that result in a dialog with the community.

In support of the specific project related tasks, the GCCSI will also undertake CCS support related actions to:

- assist in defining 'CCS Ready';
- establish a Global CO₂ Storage Atlas; and
- participate in capacity building exercises.

Mr Pegler's presentation is at **Attachment H**.

Summary of Day 1

Mr Otter highlighted the outcomes of Day 1, including the launch of the GCCSI by Prime Minister Rudd and the significant commitment shown by governments, industry and NGO's in becoming Founding Members. He reinforced the GCCSI's clear mandate to accelerate the deployment of large scale demonstration projects by 2020 in line with the G8 directive of June 2008 and the GCCSI's progress to date in pursuing an interim work program. He noted the complementary role that the GCCSI could play with the IEA and CSLF and the importance of focusing on project acceleration, knowledge sharing, and partnerships and strategic alliances was further reinforced. Mr Otter noted that 2009 was a critical year for the GCCSI and for CCS globally with a number of important meetings throughout the year into which the GCCSI would interject itself.

Mr Otter summarised the feedback from the earlier projects breakout session. It reinforced the need to collaborate and partner with the other agencies and organisations, in particular the IEA and CSLF, in order to deliver critical activities as soon as possible and support the G8 recommendations was reinforced. The partnerships would enable the GCCSI's initial work program to be thorough and rapidly delivered, which representatives generally supported. The GCCSI will also broaden its program range as it becomes fully established and will evolve over time.

A clear focus is on identifying and defining projects and analysing both existing projects and shelved or cancelled projects to determine what work is required to bring them forward. With the 20 projects by 2020 goal in mind there was recognition that a larger number of projects would require support initially as it was inevitable that a lot of projects would not go ahead or fail. Mr Otter acknowledged that the oil and gas sector would be the early mover on projects.

There was endorsement for the GCCSI having a global advocacy role in advancing debate on the inclusion of CCS under CDM and on consistent government regulations and CCS policy. Representation also recognised that at times the GCCSI's advocacy work may be in conflict with the views of other individual members; however the GCCSI must still retain impartiality, independence and credibility.

The operation of the GCCSI in establishing a base in Canberra and nodes globally, and in staffing these roles immediately was examined. It was clear that the GCCSI should not hold the expertise in house; rather it should access it globally.

The GCCSI's initially work program was endorsed. In relation to the Storage Atlas there were differing views on the extent to which the GCCSI should become involved in the provision of mapping services. Instead the GCCSI should limit its activities to commissioning of the report or coordination of the Atlas. There were also differing views on the project to harmonise the definition of 'CCS Ready', where representatives considered the GCCSI should limit its activities to supporting the work already being undertaken elsewhere. The GCCSI will incorporate representative views in to the terms of reference and deliver of these projects.

It was emphasised that the primary focus of the GCCSI will be a demonstration projects and the GCCSI will move rapidly towards a broader work program including:

- supporting projecting financing;
- developing a roadmap to achieve commercial scale activities; and
- closing the integration chain.

Mr Otter's presentation is at **Attachment I**.

Friday, 17 April

Key Messages and Objectives

Mr Otter recapped on the outcomes of Day 1 of the meeting, including the official launch of the GCCSI by Australian Prime Minister the Hon. Kevin Rudd MP, the recognition of Mr James Wolfensohn as the Chair of the GCCSI's International Advisory Panel and the strong domestic and international support for the GCCSI.

Mr Otter reiterated that the GCCSI is a partnership between governments, industry, NGO's and other stakeholders and its role will evolve over time. The GCCSI would continue to expand its partnerships and alliances, particularly with the financial community, to capitalise on the current CCS activities of its Foundation Members and project proponents. It is recognised that partnerships, in particular the IEA and CSLF, would be vital for the GCCSI to deliver critical activities as soon as possible and support the G8 recommendations.

There is broad support from representatives for the GCCSI's primary focus on industrial scale CCS demonstration projects and its proposed activities for the remainder of 2009. Mr Otter recognised that some fine tuning of projects was required in light of current financial concerns and that the GCCSI would also focus on knowledge sharing and community outreach, both of which are considered vital.

Mr Otter introduced the program for Day 2, including the discussion on the governance, legal structure, secondment opportunities and the next steps for the GCCSI.

Governance, Structure and Staffing

Legal Entity, Governance and Operating Structure

Mr Pegler outlined the proposed legal entity and governance structure as well as the proposed organisational structure and staffing arrangements. The presentation covered appointment of Board members, rights of the GCCSI Members, transfer from Foundation Membership to full GCCSI Membership and relative impacts on liability

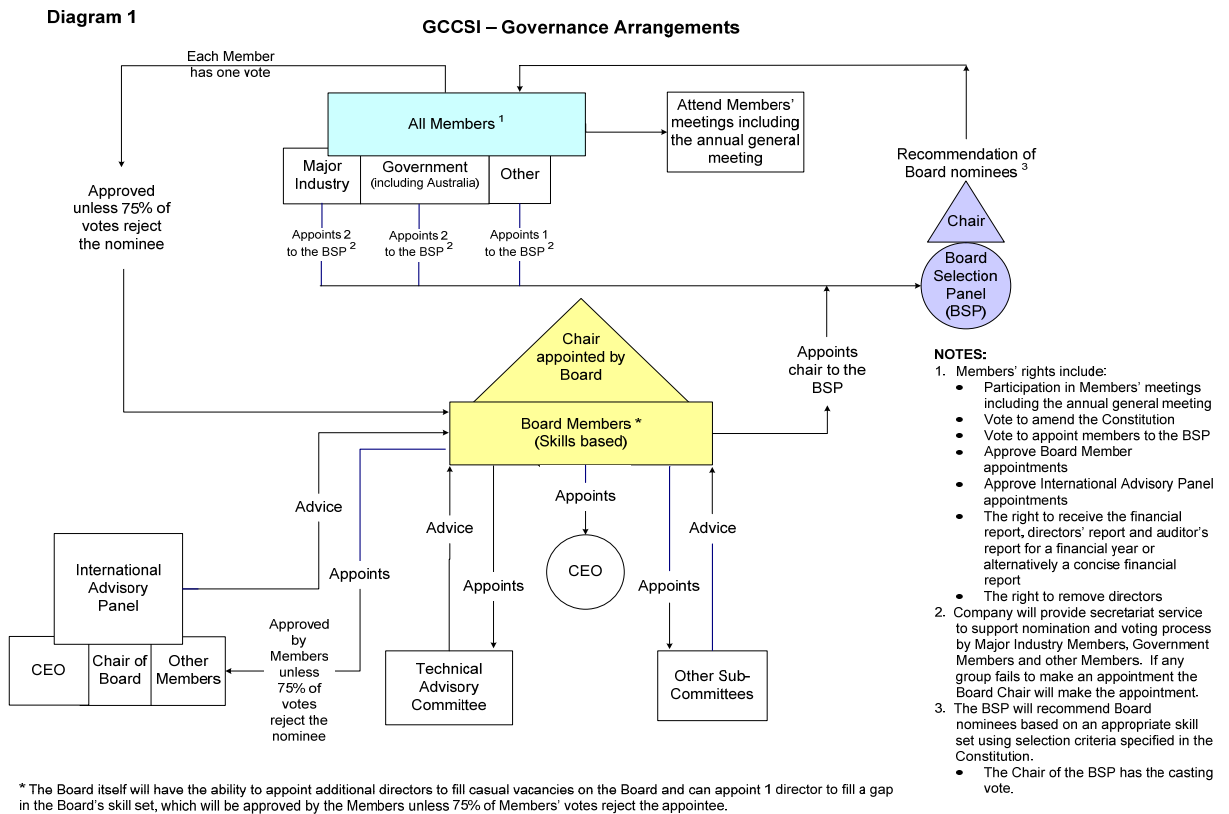
Mr Pegler's presentation is at **Attachment J**.

Based on outcomes of the London Preparatory Meeting in November 2009, the Department of Resources, Energy and Tourism (RET) and the GCCSI establishment team considered a number of alternative models and measured these against a set of key principles for the GCCSI. Consequently, it was recommended that the GCCSI:

- be established as a not-for-profit Australian company limited by guarantee;
- have multiple memberships open to governments, industry and non government organisations;
- have a Board (of seven members) which would be skills based; and

- board be supported by an International Advisory Panel (IAP), a Technical Advisory Committee (TAC) and other sub-committees as required.

The proposed legal entity, governance and operational structure proposed received broad support from Foundation Members. Structurally, it is represented in Diagram 1 below.



The roles of adjunct bodies including the International Advisory Panel (IAP) and Technical Advisory Committee (TAC) will be to support the Board and the activities of the GCCSI. The IAP will do this via high level advocacy and by acting as ambassadors for the GCCSI to secure involvement in and support for CCS projects. The appointment of James Wolfensohn as Chair of the IAP was noted and strongly supported by the meeting. The TAC will be a skill based group and will provide advice on specific issues such as project finance and will also conduct peer reviews of CCS activities.

A Board Selection Panel (BSP) will recommend Board nominees to Members through a process that will enable each category of GCCSI Members to appoint the BSP members. The Board will appoint one member of the BSP (who will be the chair of the BSP and will hold the casting vote), Major Industry Members will appoint two members, Government Members will appoint two members and one member will be appointed by Other Members (including SMEs, NGOs, Industry groups etc). BSP members will be appointed for 'rolling' three year terms.

During the company's start-up, the initial three Directors will consult with Foundation Members to establish the BSP. While it was envisaged that Other Members would appoint one BSP member this was modified following discussion so that the appointment of two BSP members by Other Members would be considered.

The discussion of the proposed organisational structure focussed on operations in five core areas:

- facilitation of demonstration projects, with the specific role of the GCCSI in any individual project to be determined on a case-by-case basis;
- supporting national governments in the development of economic analyses and regulatory frameworks;
- facilitating engagement with the GCCSI (Foundation) Members, industry and governments in promotion of CCS;
- communication of information, providing objective and authoritative CCS information; and
- finance and administration of the GCCSI.

The proposed structure received broad support from Foundation Members but it was acknowledged that it will require further development as the work program evolves and particularly following appointment of the permanent CEO and Board members.

Mr Pegler informed the meeting that depending on the scope and role of the work, the GCCSI staff will be engaged under contracts of between six months and five years duration. A typical contract may comprise an initial appointment of three years with a two year renewal option, but contracts would vary depending on the person and the situation. Foundation Members were also advised that the GCCSI is currently undertaking action to identify and engage staff using various local and global recruitment and executive search channels. A small number of staff will be seconded from the Australian Government during the transition phase.

Foundation Members were invited to submit nominations of secondees to the GCCSI. These may be on the basis of short or longer term arrangements with remuneration provisions to be discussed between the GCCSI and proponents. **Interested organisations should contact Nick Otter regarding potential secondments of staff to the GCCSI (nick.otter@gccsi.gov.au).**

Foundation Members endorsed the proposed legal and governance structure noting that the framework represents a true partnership between Government, Industry and organisations with a strong interest in CCS.

Following Mr Pegler's presentation representatives engaged in a broad discussion of the GCCSI's governance and legal structure, including the Board's rights and obligations, processes for seconding staff and other aspects. The GCCSI will reflect these comments and suggestions in the GCCSI's final constitution.

The comments and discussion is captured in **Attachment K**.

The Way Forward

Mr Otter outlined the way forward for the GCCSI following the inaugural Foundation Members meeting including:

- establishing the GCCSI as a not for profit company limited by guarantee, based on the governance arrangements outlined at the meeting. Processes to select the CEO and staffing and establish the Board have commenced;
- seeking qualified representatives for the International Advisory Panel (IAP) to play an ambassadorial and influencing role under the direction of Mr Jim Wolfensohn;
- establishing the GCCSI in Canberra and building a presence in Europe, North America and Asia;
- progressing studies and international workshops on non-proprietary knowledge sharing and community outreach activities in 2009;
- delivering key GCCSI reports such as the global status studies and the CCS portfolio definition;
- engaging with CSS project proponents, Foundation Members and stakeholders at international fora such as with the IEA in May and October 2009; the CSLF in June and October 2009; and at the international conference on CCS in Bergen in May 2009;
- identifying and enabling first mover, second phase and strategic CCS demonstration projects and the uptake of CCS globally over a one, three and five year period, through identification of impediments (including economic, regulatory and community) and development as a 'trusted adviser'; and
- building the GCCSI as a global, independent CCS expert and information source (on projects, best practice regulation, legal development and reform and public guidance material) over a five year period.

Mr Otter's summary is at **Attachment L**,

Closing Address

Minister for Resources and Energy, the Hon. Martin Ferguson AM MP

The inaugural meeting of the GCCSI Foundation Members and interested partners was closed by the Australian Government Minister for Resources and Energy, the Hon Martin Ferguson AM MP. Minister Ferguson thanked representatives for their participation in the meeting and for the clear and unequivocal feedback on the GCCSI's key priority – making projects happen.

Minister Ferguson acknowledged both the opportunity for the GCCSI to influence policy discussions in the lead-up to Copenhagen in December 2009 and the broad challenges facing CCS in making it a commercial reality. This is why Australia had committed AUD\$100 million per annum to fund the

operations of the GCCSI and would shortly announce major funding for large scale projects in Australia. To achieve critical change he challenged all representatives to become ambassadors for the GCCSI to progress CCS at the company, non-government and government levels.

ATTACHMENTS

ATTACHMENT A – Progress and Objectives

ATTACHMENT B – Initial Work Plan

ATTACHMENT C – Feedback from Breakout Session and Synthesis

ATTACHMENT D – International Architecture

ATTACHMENT E – IEA – Launch of the GCCSI

ATTACHMENT F – Partnerships and Alliances

ATTACHMENT G – Partnerships Table Discussion

ATTACHMENT H – Knowledge Sharing and Community Engagement

ATTACHMENT I – Highlights of Day 1

ATTACHMENT J – Legal and Governance Structure

**ATTACHMENT K – Legal Entity, Governance and Operating Structure
Specific Issues**

ATTACHMENT L – The Way Forward

FMM 16 APRIL 2009 - BREAKOUT SESSION – FEEDBACK FROM 6 GROUPS

FMM Representatives were randomly formed into six groups to gauge their perceptions and seek feedback on the following:

1. GCCSI **Approaches** – are these effective for identifying CCS projects to support, and what can be improved?
2. GCCSI **Roles** – which roles are of the most benefit to project proponents, and which roles would most help in accelerating its support for CCSI projects?
3. GCCSI **Activities** – what current activities/studies gain support immediately, which will be most useful, how can they be improved, what more can be done to gain traction on projects and publications in 12-18 months?
4. 1st Group – Facilitator: Christopher Short
2nd Group – Facilitator: John Hartwell
3rd Group – Facilitator: Margaret Sewell
4th Group – Facilitator: Crispin Walker
5th Group – Facilitator: Bob Pegler
6th Group – Facilitator: Michael Sheldrick

Key Themes

- the GCCSI activities must provide tangible contributions to support the establishment and implementation of future demonstration or commercial projects. Issues include recognition of the need for a global roadmap to identify the existing work of other groups, recognition of the range and types of technologies that may be applied to projects and development of small, medium and large scale projects globally. This can also include lessons learnt from projects that have not proceeded to start-up;
- the GCCSI should focus on identifying project gaps and formulating mechanisms to address these gaps; assessing the critical factors that will drive commercial deployment. For example funding process for projects, legal and regulatory issues that need to be addressed, public outreach;

- the GCCSI needs to develop a range of interventions (tool kit) to assist investment decisions and risk analysis through provision of accurate cost and project specific information, covering issues such as identifying and addressing the funding gap; identifying the real costs of projects and supporting project financing;
- regional workshops have the potential to be very useful, especially in regards to assisting with selecting priority projects. It will be important to ensure that both Government and industry representatives are in attendance;
- there are many possible criteria for defining a commercial scale CCS project. In developing this definition it needs to be considered that large projects should not be the sole focus of the GCCSI;
- 'low hanging fruit' e.g. projects that are relatively more developed or pose less barriers to deployment should be actively pursued. For example Enhanced Oil Recovery, or Enhanced Gas Recovery projects. This however should not preclude the GCCSI from working with projects with relatively higher barriers that have large potential for carbon abatement or proving a unique form of technology;
- the GCCSI must focus on acceleration of technology deployment and not be distracted from that trajectory – with particular focus on public policy frameworks and interventions, including identifiable international regulatory and policy settings on CCS, pricing of carbon and project financing, certification of storage sites, treatment of risk, knowledge transfer and the inclusion of CCS for CDM; and
- the GCCSI should be an expert advisor on the timeframes for deployment of CCS technologies with recognition given to a range of qualifying factors that differentiate projects, technologies and locations (including technology support and regulatory conditions).

Summary of Responses:

Question 1 – Approaches to Projects	Question 2 – Roles in GCCSI	Question 3 – Current Activities
<p>1. GCCSI must focus on acceleration of technology deployment and not be distracted from that trajectory.</p> <ul style="list-style-type: none"> • Certainty re Public Policy frameworks and interventions <ul style="list-style-type: none"> ○ What are the international regulatory and policy settings for CCS? ○ A need for business to know what the policy landscape is – includes pricing of carbon, storage, long financing frameworks, risk reduction, transfer of knowledge and learning. ○ Inclusion of CCS for CDM. ○ Certification of storage sites presents a major barrier. ○ Required for long term commitments to be made by business to projects. ○ Survey experiences from business – what works, what 	<p>4. The GCCSI should be an expert advisor on the timeframes for deployment of CCS technologies.</p> <ul style="list-style-type: none"> • Cannot wait for development of policies, guidelines, frameworks to be established and then do projects. • Actions to progress development of regulatory frameworks and guidelines must occur in parallel to project development/deployment– cannot afford to wait for these to occur sequentially. • Role for GCCSI in: <ul style="list-style-type: none"> ○ Managing timeframes for best outcome (rather than most immediate); ○ Identifying storage potential; ○ Avoiding duplication of activity through coordinating role; <p>Providing an independent impartial process;</p> <ul style="list-style-type: none"> • Role for the GCCSI in: 	<p>2. Need to develop a range of interventions (tool kit) to assist investment decisions and risk analysis through provision of accurate cost and project specific information.</p> <ul style="list-style-type: none"> • What is the funding gap and how can it be addressed? • What are the assurances that industry requires to support a fully integrated demonstration project? What does a financially attractive project look like? • A need for real cost data (and recognition that costs vary) to reduce gap between estimates and real costs. <p>5. Value proposition for Members to join the GCCSI – what will the leverage be and how can members gain value from involvement?</p> <p>Need to address funding process for projects and criteria;</p> <ul style="list-style-type: none"> • Role for GCCSI in identifying roles

<p>doesn't?</p> <p>3. Projects must provide tangible contributions to support the establishment and implementation of future demonstration or commercial projects.</p> <ul style="list-style-type: none"> ○ Time frame for projects is one driver, but should not dictate to the detriment of technology utilised. ○ Not all technologies are at the same stage of development – clear road maps are needed for full development of technologies. ○ Global road map – understand and not duplicate work of other groups eg. IEA ○ Ability to identify and deliver project “concepts” to potential proponents. ○ Development of a global chain of demonstration projects across small, medium and full scale. ○ Storage Atlas – less intensive approach needed, could be 	<ul style="list-style-type: none"> ○ Leadership role; ○ Addressing funding gap (and defining what the gap is (ie; cost of carbon, cost per tonne of storage)); ○ Identify work to be done for deployment; ○ Propose potential regulatory approaches; ○ Role of GCCSI in projects; ● Identify consistent set of projects; <ul style="list-style-type: none"> ○ Roadmap; ○ Sharing experience; ○ Portfolio/Pipeline of projects; ● Identify ‘package’ of work for projects, encompassing: <ul style="list-style-type: none"> ○ Finance; ○ Planning; ○ Regulation; ○ Technology; ● Project assessment ‘tool-kit’ for potential CCS projects; 	<p>for government, industry, etc;</p> <ul style="list-style-type: none"> ● Address policy issues for CCS; ● Role for GCCSI in Public Policy intervention; ● Overall strategy for CCS technology; Roadmaps for 2020; <ul style="list-style-type: none"> ○ Identify what it will take to deploy CCS; ○ Financial considerations/costs (crucial factor); ○ Cooperation; ○ Targets; ○ Barriers; ○ Timelines; ○ Regulation; ○ CCS Global Atlas; ● Considered a significant task with huge resource requirements; <ul style="list-style-type: none"> ○ Noted that will be an outsourced activity (not tying up GCCSI resources); ● How will it interact with other bodies/activity?
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<p>pulled back to a simpler exercise with some harmonisation work.</p> <ul style="list-style-type: none"> ○ Projects won't be constrained to 20 by 2020. 	<ul style="list-style-type: none"> ● Providing guidance in respect to Public Policy (guidelines) for CCS deployment; 	<ul style="list-style-type: none"> ○ Noted that it utilise and combine existing resources/activity; ● Benefit from identifying storage sites through an atlas? <ul style="list-style-type: none"> ○ Process/technique of identification consider more important than actual identification; ○ Development of a framework for identification and utilisation of storage site good; ○ Benefit to 'local' projects questioned; ○ Atlas would assist in the identification of sites for future projects ○ Would provide standard terms of reference for site identification; ○ Sharing information of capture technology considered useful; ● Existing studies/references noted, need to disseminate; <ul style="list-style-type: none"> ○ Definition of 'Capture Ready' ● Absence of definition not seen as a
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		<p>barrier to CCS projects;</p> <ul style="list-style-type: none"> • An accepted definition may be seen to 'drive' projects; • Currently there is significant variation in definition;
<p>APPROACH OF GCCSI</p> <p>Initially discussion focussed on what types of projects the GCCSI should consider in its portfolio of projects:</p> <ul style="list-style-type: none"> • A sophisticated analysis of which projects to include is required based on which projects will have the greatest impact. Plant generation capacity nor emission levels may not be the best basis of choosing projects- need to look at wider issues of economic viability (can the project stand alone) and contribution to broader CCS effort. • Project criteria should consider a mix of economic incentives, political driving forces and whether the project can engage the right range of stakeholders across industry. • Large projects should not be the 	<p>ROLE OF THE GCCSI</p> <p>This question found representatives in broad support that the GCCSI will need to undertake all types of roles where appropriate to the circumstances. However, activist advisor and consortia builder should be the main role for the GCCSI.</p> <ul style="list-style-type: none"> • Margaret Sewell noted to representatives that Nick Otter currently saw the GCCSI mainly playing the role of a consortia builder. • Industry was of the opinion that consortia building was already being adequately addressed and acted upon by industry and that the GCCSI was best positioned to play the role of advisor to government and other bodies, especially in advising government on which projects to support. However, there 	<p>OTHER ACTIVITIES</p> <p>Feedback on the work program varied, although representatives strongly agreed that the work program should primarily concentrate on activities that will facilitate projects in the longer term.</p> <ul style="list-style-type: none"> • The work program should look at regulatory barriers and develop a protocol for attaining community acceptance of CCS- that is, not every company should undertake the same type of work. • Any activities undertaken by the GCCSI will need to feed into project facilitation. For example, the Storage Atlas may lose the interest of industry as it progresses and should be linked to site characterisation and project development. • The risk exists that goodwill will be

<p>sole focus of the portfolio as the barriers are even greater to overcome. "Low hanging fruit" should be pursued. LNG/EOR in the Middle East and elsewhere should be pursued as a low hanging fruit option. EOR efforts will need to address industry readiness, investment and organising industry representatives.</p> <ul style="list-style-type: none"> • While low hanging fruit should be pursued, the GCCSI will need to look into the types of projects that have high barriers to deployment but are very important in carbon abatement, examples include the cement industry. • Need to assess the critical/marginal factors that will drive commercial deployment such as an analysis of the particular aspects of the CCS process where costs can be driven down or efficiencies gained. <ul style="list-style-type: none"> ○ What are the international regulatory and policy settings for CCS? 	<p>was scope for the GCCSI to act as both an activist advisor and consortia builder- the two roles are not mutually exclusive.</p> <ul style="list-style-type: none"> • The GCCSI should play a strong role as facilitator especially in relation to regulatory issues and knowledge sharing. • The GCCSI should not provide expert advice but have the capabilities to source expert advice- that is match educators with problems that need to be solved. 	<p>eroded if no real or tangible outcomes are delivered in the next 6- 12 months. The GCCSI will need to focus on industry and attain some deliverables that will each generate their own success.</p> <ul style="list-style-type: none"> • Other studies/suggestions: study into whether 20 projects by 2020 is the right number to be aiming for; an assessment of the hurdles (not just economic) to the commercial deployment of CCS; what CCS capacity is needed by 2020 to effectively target carbon emissions; and a study into recommended tax amendments to make CCS commercially viable to drive commercialisation (that includes a mandatory low emissions target).
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<ul style="list-style-type: none"> • industries ability to make investment decisions and government intervention is required in this area. • Strong support for the GCCSI to lobby for CCS to be included in the CDM. • Clarity over definitions of demonstration/pre-demonstration/commercial terms and how they are used in defining projects. 		
<p>APPROACH OF GCCSI</p> <p>Regarding the German suggestion to insert the words 'test and' in the GCCSI mandate: - general response was that this would take the GCCSI backwards. A placatory response was that if we defined testing as doing 20 projects, this could be a way around the issue.</p> <ul style="list-style-type: none"> • Really nice comment by Nick Otter: "preparing a pathway to zero emissions" • General support for work plan • Focus should be on identifying gaps and identifying mechanisms 	<p>ROLE OF THE GCCSI</p>	<p>OTHER ACTIVITIES</p> <ul style="list-style-type: none"> • In looking at gaps and solutions, the GCCSI should: <ul style="list-style-type: none"> ○ Look at options or Public Private Partnerships ○ Be an authoritative source on what the gaps are (and thereby engender government-private trust) ○ Legislation and regulation are key: Australia could lead the way on this , although no one is looking for global sameness of legislation.

<p>to fill the gaps/address the challenges, particularly commercial and policy gaps. This was reiterated throughout the entire discussion.</p> <ul style="list-style-type: none"> • The gap and solution analysis should be details and serious, not superficial • The definition of a CCS demonstration project was raised as an issue. Suggestions were made that it should be the following: <ul style="list-style-type: none"> ○ 1 million tonnes per year (general power sector) ○ Different scales for different industrial processes ○ Must prove integration ○ Scale and scale-up are essential ○ Get one large, fully integrated project up as soon as possible ○ GCCSI is unique because it will be solely focussed on large-scale, fully integrated demonstration projects 		<ul style="list-style-type: none"> ○ Need to articulate more fully the benefits we will get from the 20 projects, for example, better understanding of safety and cost issues, etc • PB (Parsons Brinkhoff) offered to promote CCS certificates through the UN Climate Change process, and asked about the Australian government role in same • Possibility of transposing learnings from the development of the renewable energy sector to CCS was raised. • Will GCCSI 'Choose' between technologies (picking winners) <ul style="list-style-type: none"> ○ Will GCCSI projects have lots of different technologies, or less technologies, and what will be the rationale? • The possibility of the government collecting, transporting and storing CO2 was raised, with private capturing, similar to garbage disposal. • Public outreach is essential!
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<ul style="list-style-type: none"> • Communication: <ul style="list-style-type: none"> ○ General ○ Project specific ○ Go to local communities where projects are operating and get the locals 'on board' ○ Good examples of projects that have done this are: <ul style="list-style-type: none"> ○ Otway, EPRI (US) (various), RWE project in Germany (latter a very good example) • Project developer – who can open their books to GCCSI confidentially and identify where they need a boost • Need to devote lots of resources to finding financial resources • No need for GCCSI to make new projects – there are plenty of projects out there already • Key messages were projects, projects, projects, and communication, communication, communication (internal – with members, and external, with the 		<ul style="list-style-type: none"> ○ People friendly, region specific information, translated. ○ Information that is specifically tailored to local communities around a proposed/current CCS site. • CCS should be marketed as part of a low emissions technology combination • CCS Ready definition: needs to go beyond a pure definition and to what the it means more broadly • Global storage atlas: <ul style="list-style-type: none"> ○ Needs to be seen as a public communications tool ○ May not be useful in detailed project planning • Capacity building: not just in developing markets • Engagement with smaller projects needs to continue: <ul style="list-style-type: none"> ○ The role the GCCSI in relation to smaller projects may be as an information gatherer, collator, sharer, etc
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<p>public)</p> <p>German suggestion needs to be addressed – 'to test and accelerate the global adoption</p>		<ul style="list-style-type: none"> ○ Smaller projects can be an important step towards large projects, so it is important to not fully exclude them. ● Clear value seen in portfolio definition ● Project consortia interaction seen as a priority ● EPRI and the DOE key to interact with ● Maintaining a list of projects/consortia and where the projects are up to was seen as important ● Need to create a separation in the list of projects by where the projects were up to (esp in terms of funding and commitment.) ● Project development capability should be evaluated (?) <ul style="list-style-type: none"> ○ Develop project and identify funding ○ Eg tax incentives, loan guarantees, guaranteed carbon prices for 20 years....for the first
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		mover project.
<p>APPROACH OF GCCSI</p> <ul style="list-style-type: none"> • Key issue – commercial gaps + how the gaps can be bridged should be clearer • Need understanding of magnitude and distribution of gaps • Financing and commercial support will be the major gaps • Needs trusted broker to mediate between governments and industry <p>Critical need for costs and benefits analysis (some work by MIT, PEW, etc)</p> <ul style="list-style-type: none"> • Analysis of "best bang for buck" • Project drivers – champions + critical mass publicity <p>Portfolio approach may not suit</p> <ul style="list-style-type: none"> • Develop risk analyses • Critical gaps guidelines only – not drivers • Focus on projects that are in motion • Sharing of knowledge + expertise 	<p>ROLE OF THE GCCSI</p> <ul style="list-style-type: none"> • "Committed by 2010": What does this mean? (Bit of confusion out there!) • What is the GCCSI's skills expectations? <ul style="list-style-type: none"> ○ may need decentralised structure ○ secondments in and out • Early project opportunities: <p>Need CCS stand in Bonn + Copenhagen (visibility)</p> <ul style="list-style-type: none"> • Encourage financial support, e.g. by governments • GCCSI involvement in CCS/CDM negotiations? – critical advocacy role as "trusted adviser" • Better develop GCCSI public profile (Wolfensohn a good move) • Lobbying of governments on CCS (deliberate, focussed approach) • Advocacy role of Company Boards 	<p>OTHER ACTIVITIES</p> <ul style="list-style-type: none"> • Community outreach/awareness – need more detail, to address public scepticism • Dialogues at local level: communication challenge <ul style="list-style-type: none"> ○ Need to actively monitor discussions at local level (quite a challenge for a global GCCSI) ○ 3rd party advocates needed (project specific) ○ Should target international publications • Need specific actions on commercial gaps – liaison with reputable international banks • Other partners/organizations <ul style="list-style-type: none"> ○ steel and cement industries ○ UNFCCC expert group on technology transfer ○ specific bodies under IEA ○ Energy Technology Institute (ETI) in UK for storage atlas

<p>via secondments (to GCCSI)</p> <ul style="list-style-type: none"> • Benchmark in 'safe' environment – the key is to set a target • Position on EOR? How hanging fruit? Is it sustainable storage? GCCSI could sway EOR to influence eventual permanent storage • GCCSI to also engage 3rd world countries, like Brazil, and industrial processes • Infrastructure packages should be developed to drive greater confidence in capture • Integration – transport + storage (greater effort needed) 	<ul style="list-style-type: none"> • Heads up! Need to develop text for UNFCCC Now! • Funding of feasibility studies? – Competitive basis? • Roles:- advocacy <ul style="list-style-type: none"> ○ specific project development (Developers fully support open, rigorous transparent processes) • Differentiation of GCCSI: a real industry/government partnership • Others' involvement – various levels of IEA • Demonstration projects: <ul style="list-style-type: none"> ○ for demonstration only ○ those that can be up-scaled • Balance of projects/advocacy <ul style="list-style-type: none"> ○ possible projects: review of CCS in CDM (some work already underway) • Timeframes: project commitment by 2012/14 (needs a 'nimble' GCCSI –out posted structure) • Problem: not identifying 20 projects 	<p>(also looks at European geo-capacity)</p> <ul style="list-style-type: none"> • Explicit: commercialisation, storage issues • Close the integration chain – develop transport/ storage solutions <p>Longer-term GCCSI activities:</p> <ul style="list-style-type: none"> • Massive roll-out of infrastructure supported by enabling actions by industry + governments • New industry development • Greater interactions by other governments (especially agglomeration of funding)
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	<p>but 20 winners</p> <ul style="list-style-type: none"> o losers = risk of serious setbacks 	
<p>APPROACH OF THE GCCSI</p> <p>The charter and goals of the GCCSI are admirable however the timing and goals may be difficult.</p> <p>Qualifying the projects by the state of activity/ progress may not be useful. Therefore, rather than qualify the progress it may be better to look at which milestones have been achieved, such as do they have all required permits (EPRI offered help with this). In addition, it could be useful to put a level of money on each stage so to get an idea of the investment needed for each.</p> <p>If financing is identified and committed up front for a project that it is way of seeing if the project is real.</p> <p>Capturing lessons learnt from previous projects, even those that did not make it over the line, would be useful (this was agreed by many representatives).</p> <p>Regional workshops would be useful and for them not to just have governments attending but industry as well for the</p>	<p>ROLE OF THE GCCSI</p> <p>The GCCSI could be a barrier remover, such as in the area of legal issues and regulation. There are issues before, during and after projects, such as pollutants and public outreach.</p> <p>The GCCSI does have a role as a lobbyist. Such as, in the case of the appropriate regulations not being in place in a country the GCCSI should be able to go (in an appropriate manner) and bang on the door.</p> <p>The GCCSI should not have pressure to do projects. There is a role for facilitation and do not underestimate the power of knowledge. "If I go to the Government, who am I going to bring with me?"</p> <p>The GCCSI should have knowledge and high quality people that can suggest ways to go about doing something and the pros and cons.</p> <p>The GCCSI as a coordinator.</p> <p>(Indonesia) This would be a useful role for us as they are trying to develop CCS</p>	<p>OTHER ACTIVITIES</p> <p>CCS Ready</p> <p>Overall there were mixed views.</p> <p>We do have much to do for the 2020 goal but we also need to look to the future, we will need many more by 2050 to achieve emissions reductions targets.</p> <p>However, with a definition you get disagreements, there needs to be a focus on capabilities rather than definitions.</p> <p>There will be an energy demand gap going towards 2050 and new power stations will need to be built. The transportation and storage side will be a big issue.</p> <p>Global Storage Atlas</p> <p>There are regional assessments that can be brought together and then pulled apart to find common criteria. Then establish criteria that if you do not have it then it is not a proper storage assessment. Then select 50-60 good storage sites to progress with. It is pre-competitive information that people can use.</p>

<p>closer this technology gets to the commercial level the more the IP issues will come to a front (EPRI offered to help with this). These regional workshops would also be a good idea to flush out potential projects. Then at the end of the workshop it should be evaluated to see what projects you should push forward with.</p> <p>In terms of having more insight into why projects do not go ahead we should look more into the commercial strategic drivers. The question is how does a company put in their strategic drivers.</p> <p>Clinton Group – In finding potential projects the first thing they look for is a government that is willing to support the project. The second thing is to look at emitter groups and try to bring them together.</p> <p>An organisation like the GCCSI can only have influence before a consortium is formed.</p> <p>The EU and the US will be quite soon putting forward a suite of projects. After this the GCCSI may have more of a role in looking at where the technical gaps exist.</p>	<p>projects but they have financial problems. At the moment they are trying to start with CO2 injection not just for CCS but for EOR but they need support.</p> <p>The GCCSI could undertake peer review, give guidance and offer a reviewing role at the front end of the project.</p>	<p>(Indonesia) We have started to map depleted reservoirs and saline aquifers but they need to know what is required for CCS storage. The Storage Atlas and Regional Assessments are just starting blocks. Also, we need to avoid the impression that just because there is a basin near by that it will be able to be used as storage. It needs to be made clear that only a small percentage of basins may be able to be used and just because it meets a standard does not mean that it could be a storage site.</p> <p>At the moment the existing dataset is biased towards petroleum and gas. If you build a standard template/module then governments can be approached with the tools needed.</p> <p>Capacity building – Do it on a commercial/professional level</p> <p>Future meetings – At GCCSI meetings/workshops have enough networking time.</p> <p>2020 focus questioned – Why focus on 2020? Why not focus on integration issues or cheaper capture.</p> <p>Future GCCSI activities – Secondary</p>
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<p>Something that could be valuable is putting together a 'needs' grid, e.g. 'I need brown coal' and 'I need shipping' as there may be some gaps now that might be useful to identify early on.</p>		<p>tasks will come out of the first tranche of initiatives.</p> <p>GCCSI Membership/Involvement – Would be interested to see high level commercial structures involved and get insurance companies and venture capitalists on board.</p>
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Partnerships – Table Discussion

Summary of proposed partnerships

The references for individual companies or organisations reflect the number of tables that commonly identified those agencies during the discussion.

The need to create partnerships with **Financial Bodies** (both development banks and private investment companies) was the most common theme (25 references) across the tables. A strong preference was for links to be made with the insurance sector. Multiple tables identified partners in this sector referred to by multiple tables were: Insurance Bodies (generic) (five references), Banking/Financial/Credit Agencies (generic) (four), World Bank (three), Asia Development Bank (four), African Development Bank (two).

Research Organisations received the highest number of references (33) for potential partnerships. The PEW Centre (five references) and EPRI (four references) were primary choices. Two French organisations (French Petroleum Institute and PRGM (French Geoscience Australia equivalent)) got two references each, as did VCB (the EU equivalent of EPRI) and the Energy Technology Institute (UK-based). Generic national level R&D bodies (ie; CSIRO) were also noted as good partners.

Non-Governmental Organisations (NGOs), and similar, also received a high number of references (22), although often with multiple references from tables (ie; indicating a number of NGOs as potential partners). The WWF lead this group with five references, also receiving multiple references were: Greenpeace (two), NRDC (USA-based environmental group) (two) and Bellona (Norwegian-based environmental group supporting CCS) (two). This grouping also included philanthropic entities (Turner Foundation and Bill Gates Foundation) as well as not-for-profit groups (The Climate Group and The Clinton Foundation).

International Organisations were another common theme (20 references) with the UN (and its distinct bodies – UNDP, UNEP, UNFCCC) getting the most reference. Identified partners in this sector referred to by multiple tables were: UN (two), UNDP (four), UNEP (including IPCC) (three), UNFCCC (two), World Energy Council (two), International Maritime Organisation (two), International Energy Association (two).

The need to form partnerships with **Industry Bodies** was noted (17 references) but generally only at the generic level, except for OPEC (two references) and the Society of Petroleum Engineers (one reference). Utility, Coal, Transport, Steel, Cement and Electrical power were all sectors identified for partnership with International Industry Bodies.

A number of **Regional Bodies** were identified (seven references), although the European Union (EU) was the only entity to receive multiple references (three – including references to the FPT program and ZEP). Other Regional Bodies noted were: APEC, the South African Development Commission (SADAC) and the North American CCS Association.

National Entities (both countries and country specific entities) were repeatedly noted by the tables (36 references across 26 entities), to some degree reflecting the nationalities represented at the meeting. Partnerships with India (five references) and China (two references plus three references to Chinese entities) were noted by a number of tables. The USA was also seen as a good source of partnerships across a range of activities (seven references – national entities). The need to engage with national regulators was also noted by two tables.

22 **Companies**, predominantly in the power generation industry, were noted as potential partners but none with multiple references.

There were ten other references to ungrouped potential partners, such as Masdar (one reference).

The groups identified through the table discussion include:

- financial bodies (both development banks and private investment companies) and the insurance sector with particular references to Insurance Bodies (generic), Banking/Financial/Credit Agencies (generic), World Bank, Asia Development Bank, African Development Bank;
- research organisations - The PEW Centre , EPRI, French Petroleum Institute, PRGM (French Geoscience Australia equivalent), VCB (the EU equivalent of EPRI), the Energy Technology Institute (UK-based), and generic national level R&D bodies (i.e.; CSIRO);
- non-governmental organisations (NGOs), with WWF as a strong preference then Greenpeace, NRDC (USA-based environmental group), and Bellona (Norwegian-based environmental group supporting CCS) (2);
- philanthropic entities (Turner Foundation and Bill Gates Foundation);
- international organisations - UN (and its distinct bodies – UNDP, UNEP, UNFCCC), World Energy Council, International Maritime Organisation;
- industry bodies - generally at the generic level – OPEC, the Society of Petroleum Engineers, Utility, Coal, Transport, Steel, Cement and Electrical power Associations;

- regional bodies such as the European Union (EU - including the FPT program and ZEP), APEC, the South African Development Commission (SADAC) and the North American CCS Association;
- national Entities - India and China; and
- companies and ungrouped entities such as the Masdar initiative in the UAE.

Financial Organisations	References
Insurance Sector	5
Banks/Financial Institutions/Credit Agencies (generic)	4
World bank	3
Asia Development Bank	3
African Development Bank	2
International Banking Federation	1
European Investment Bank	1
Goldman Sachs	1
Banks: ADB, African DB, DBSS, WB, CIF	1
Development Banks	1
Citigroup	1
International Finance Corporation (under World Bank)	1
Ethical Investment Financial Groups	1

Research Organisations	References
PEW Centre	5
EPRI (Electric Power Resource Institute)	4
VCB (EU EPRI equivalent)	2
French Petroleum Institute	2
PRGM – French equivalent of GA	2
Energy Technology Institute (ETI) (UK)	2

Canadian Research Institute	1
AIST – Japan Institute Science Technology	1
ANR (France)	1
French technology cluster for CCS	1
Research networks/consortia (generic)	1
R&D Bodies (ie; CSIRO)	1
Coal Utilisation Research Council (CURC)	1
Coal Utilisation Research Council (USA)	1
UK and USA Research Network (six or so unis)	1
CO2CRC (Aust)	1
National Energy Technology Lab (USA)	1
Professional Institutes	1
Coal Research Institute	1
South African National Energy Research Institute (SANERI)	1
CSIRO	1
Technical Institutes	1

NGOs and similar	References
WWF	5
BELLONA	2
Greenpeace	2
NRDC (Natural Resource Defence Council) (USA)	2
Sierra Club	1
Bill Gates (Foundation?)	1
Clinton Foundation (and similar)	1
Environmental Champion (David Suzuki)	1
Cultural Institutes	1
Environmental Groups (generic)	1
Representative Social Groups (generic)	1

GLOBE (Global Legislators Organisation for a Balanced Environment)	1
Friends of the Earth (UK)	1
Climate Group	1
Turner Foundation (CBS)	1

International Organisations	References
UN	2
UNDP	4
UNEP	1
Intergovernmental Panel on Climate Change (IPCC) – Part of UNEP	2
UNFCCC	2
World Energy Council	2
International Maritime Organisation	2
International Energy Association (IEA)	2
CSLF	1
World Business Council	1
International Organisation of Standardisation (ISO)	1

Industry Bodies	References
OPEC	2
Society of Petroleum Engineers (SPE)	1
Industry Associations (global) (generic)	1
Industry bodies for utility companies (generic)	1
Coal producing associations (generic)	1
Transport companies (generic)	1
Steel Industry International Body (cement)	1
Global Cement / Steel / Industries / Electric Power - Industry Associations	1
Renewables bodies	1
Pipeline Industry (APIA)	1

Generator Forums	1
IPICA (International Petroleum Industry Environ...?)	1
Generator Associations	1
Energy Intensive Industry Association	1
Water Industry	1
Chemical Processors (urea)	1

Regional Bodies	References
APEC	1
EU	1
EU-FPT Program	1
EC/ZEP	1
South African Development Commission (SADAC)	1
North American CCS Association	1
Regional Development Agencies (on a local level)	1
OLADE – Energy Organisation of South America	1

National Entities	References
India	5
Electrical Supply Association of Australia (ESSA)	3
China	2
US Department of Energy (DOE)	2
Carbon Capture and Storage Association (UK)	2
Regulators	2
Ex-soviet Bloc	1
Saudi Arabia	1
Latin America countries (Argentina?)	1
Brazil	1
Chinese Academy of Science	1

Ministry of Science and Technology (China)	1
China Coal Information Institute	1
Poland	1
US Regional Partnerships	1
US EPA	1
USA State governments	1
US Carbon Sequestration Council	1
CCS Contact Group (USA)	1
Russia	1
South Africa	1
Fossil Fuel Foundation of Africa (South Africa)	1
Other levels of government	1
Clean Energy Association	1
State/Federal governments	1
Canadian Clean Power Coalition	1

Companies	References
Green Gen in China	2
EDF (France – power generator)	1
AES (USA – power generator)	1
TXU (USA – power generator)	1
TATA (India)	1
Petrobras (Brazil)	1
China Light and Power (CLP)	1
International Power	1
TEPCO (Japan)	1
J-Power (Japan)	1
Saudi Aramco	1
ICON	1

Hydrogen Energy	1
Future Gen	1
Zero Gen	1
IZKUMA Generation	1
Future Gen Industrial Alliance	1
SIEMENS	1
Lafarge	1
BOT	1
CDRS (E Korea)	1

Other References	References
Associates of Foundation Members	1
Active role for Foundation Members	1
NELCC member	1
MASDAR	1
World Science and Tech	1
GMGT	1
IPAC	1
NEI: National Energy Agency	1
International Energy Forum (CO ₂ EOR)	1
Geological Surveys (Danish, UK, USA, France)	1

**Legal Entity, Governance and Operating Structure
Specific Issues**

Is the CEO a member of the Board? Why do Other Members only appoint one representative of the BSP? (World Coal Institute)

The CEO will not be Board Director, but will be an ex-officio member and will report to the Board. The Legal and Governance Structures paper has been amended to reflect that Other Members will appoint two members of the BSP as with Government and Major Industry Members.

Suggested inclusion of the word 'test' in the first dot point of the GCCSI's objectives and query re the process for input to papers (Government of Germany)

Representatives highlighted the importance of maintaining a focus on building project teams and supporting the deployment of full scale integrated CCS demonstration projects. The inclusion of the word 'test' in the GCCSI's objectives was not supported by Foundation Members. Rather, Foundation Members encouraged the GCCSI to, inter alia, move beyond testing and work to address barriers to project finance/investment and with governments to develop regulation that will enable project deployment.

What is the role of Government Members beyond undertaking nomination of BSP members? What is the role of the IAP and TAC (Government of United Kingdom)

Governments are able to exercise the same membership rights as other Members. In addition to contributing to development of the GCCSI's longer term work program and priorities, it is foreseeable that Governments will also play an important role in helping to achieve public acceptance of CCS technologies and in actions to develop a global business environment that is conducive to CCS investment and cognisant of risk reduction for CCS projects (through appropriate regulation for example).

The intention for the IAP is for it to include a geographical spread of members with sufficient gravitas to act as global ambassadors for CCS and to help garner support and cooperation for the deployment of demonstration projects. It will not be solely skills based. The TAC and other sub-committees on the other hand, will be more skills based and will be tasked with providing advice on specific issues such as balance of the GCCSI work programme, finance and the conduct of peer reviews. It would also help identify roadblocks and provide early warnings regarding technical developments and issues.

Will matters, including budgets, be approved by members or the Board? What is the remuneration and tenure of the CEO and Board? Asian Development Bank).

It was noted that ADB will write to the GCCSI regarding governance. Day to day operational decisions will be made by the CEO, COO and CFO. Major decisions will be made by the Board. The Board will report to members on a regular basis. The CEO and the Board will seek members' input to work programs.

Members were advised that remuneration for the CEO will need to position the GCCSI to secure a person with appropriate skills – for senior executives including the CEO, remuneration levels will sit in the mid range of the market place. It could reasonably be expected that CEO candidate's expectations of remuneration will include a public good aspect. Board members would also receive remuneration and have expenses covered (including travel). Appointments will be for two to three years and will be staggered.

There should be a differentiation between Government and other organisation members. Consider including information management, dissemination and public outreach skills in the Board Selection Criteria. (Government of Netherlands)

At the GCCSI London Preparatory meeting in November 2008, representatives expressed strong views that there should be no differentiation between government, industry and other members. Rather, members encouraged the GCCSI's governance framework to constitute an equal partnership between Members to enable bona fide Government-Industry collaboration. A distinction has been made solely for the purpose of appointing BSP members. The Board Selection criteria will be revised to reflect the suggestion above.

Is the organisational/management structure a notional structure and is there opportunity for it to be revised?

The current operational structure has been developed to satisfy requirements that will enable company registration to take place. It is understood and expected that when the GCCSI Board and key staff (most importantly the CEO) are appointed, that the structure will be revised to reflect the status of work programs and priorities.

Where does the company's top structure start? What role will the first three directors play in initiating other processes including selection of additional Board members? (Shell)

During the company's initial phases, it is practical for Australia to consult with Foundation Members and seek guidance and input to establish the GCCSI company structure to enable the GCCSI's registration and operation as a separate entity to begin (e.g. appointment of initial Board members, definition of legal and governance structures, initial work program, engagement of staff). Upon registration of the company, the first three Board members will

work with Members and Foundation Members to appoint the first BSP and subsequently the first full Board. At the second AGM and at annual AGM's thereafter, one third of Directors will retire.

Strong support expressed for current structure noting that the framework represents a true partnership between Government, Industry and organisations. Suggestion that CCS project development skills could also be included in the Board Selection Criteria. (Rio Tinto)

The Board Selection criterion will be revised to reflect this suggestion.

What is the status of the GCCSI 'collaborating partners'? (Government of Canada)

Organisations listed as collaborating partners will be able to apply to become Members of the GCCSI. This category of stakeholder could remain following establishment of the GCCSI entity as cooperation under this banner enables important collaborators to remain involved while sitting outside of formal membership (which may or may not be pursued for a variety of reasons).

How will the Board Selection Process be managed? (The Emirate of Abu Dhabi)

The GCCSI will provide coordination, administrative and secretariat support for the BSP appointment process. An ongoing mechanism will be put in place to coordinate contact with and be the conduit of information for each major category of Foundation Member (industry, government, other). Foundation Members will receive an email with details of their GCCSI contact shortly.

Legal Structure/Governance matters raised prior to and during the course of the meeting:

Are there guidelines in place for the length of service of Board Members?

Board members will be appointed for three year rolling terms. The initial Board will remain in place until the second annual general meeting.¹ This would allow the initial Board to establish the GCCSI. At the second annual general meeting and each subsequent annual general meeting, one third of the Directors would retire.

Are there any specific success criteria or key performance indicators that Board members are required to satisfy?

Not presently. KPI's are being considered and success will be judged by progress toward the G8 mandate of 20 industrial scale CCS demonstration projects globally by 2020. Specific success criteria for Board members will be considered as the GCCSI's work programme is developed and is agreed.

¹ This could be another date such as 1 January or 1 July, two years following registration of the GCCSI as a company.

What degree of time commitment is envisaged for members of the Board, Technical Advisory Committee or the International Advisory Panel?

Time commitments will vary between the three groups. Directors can be expected to attend at least two Board meetings and one AGM per year. International Advisory Panel members would be expected to act as Ambassadors for the GCCSI and time commitments would vary depending on networks and involvement in other related activities.

Does being a director on the GCCSI Board preclude the Director's organisation from being involved in the projects?

No. Director's will be required to disclose interests and to act in accordance with various duties, encompassing fiduciary and statutory duties contained in the Corporations Act 2001. These include to act for proper purposes; to act in good faith in the best interests on the corporation; to avoid conflicts of interest; and not to misuse information or position. Additionally, other legislation such as occupational health and safety and trade practices laws impose responsibilities on directors.

Are all Board Members Directors?

The CEO will not be a Director but will be an ex officio member of the Board. All other Board members are Directors.

What is the size of the Board?

There will be a maximum of seven Board members at all times.

Who decides the policy and strategy of the GCCSI?

The GCCSI has been established to deliver on the G8 mandate of 20 industrial scale integrated CCS demonstration projects around the globe by 2020. The GCCSI's core activities will be determined by required action to deliver on this mandate. Australia is currently working with Foundation Members and key stakeholders to establish an initial work program for the GCCSI. In the longer term, the Board, in consultation with the CEO, Members and Stakeholders will determine the forward policy and strategy of the GCCSI.

How often will members meetings be held?

Members will be invited to attend a minimum of one Annual General Meeting (AGM) per year. The first AGM will be held within 18 months of the company's registration.

Should companies be allowed to fund the GCCSI? Would this affect its independence? Will the members approve such funding arrangements?

Funding made available to support the operations of the GCCSI from third parties will be negotiated through individual funding agreements that may set out specific rights and obligations, as will the AUD\$100 million funding from Australia. The provision of operational funding does not entitle a member to additional voting rights and such

arrangements cannot be inconsistent with the constitution and other arrangements the GCCSI may have in place with other organisations. The Board will approve such funding arrangements.