

A strategic approach for communication and outreach activities for CCS

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Acknowledgements: Photos courtesy of Daniel Byers; Illinois State Geological Survey
Cover: Drilling shallow groundwater monitoring wells at the Illinois Basin – Decatur site
Injection well drilling began on February 14,2009 at Decatur, Illinois USA

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EXECUTIVE SUMMARY

In June of 2008, the Group of Eight (G8) leaders endorsed a combined International Energy Agency (IEA) and Carbon Sequestration Leadership Forum (CSLF) report “Near Term Opportunities for Carbon Capture & Storage”. The leaders stated strong support for the report’s recommendation *that 20 large scale CCS demonstration projects be launched globally by 2010, with a view to supporting technology development and cost reduction towards broad operation by 2020.*

As a result, government and industry globally are mobilising their efforts to deploy CCS as one of the portfolio of carbon dioxide mitigation options. The Carbon Storage (CS) Taskforce is playing an integral role in Australia’s deployment by bringing together key stakeholders to develop a National Carbon Mapping and Infrastructure Plan (the Plan). This report makes recommendations for communicating the Plan and wider issues associated with CCS as part of the work of the Community Working Group.

A number of contextual considerations for communication have been identified and these include:

1. The increased momentum by governments best reflected in the increased allocation of funds including the \$2 billion for industrial scale demonstration projects in Australia
2. Communicating to ensure all stakeholders understand the reason for the size of investment required by the portfolio costs to achieve a low carbon future for Australia. The portfolio cost needs to be one of the focal points in communicating the results of the CS Taskforce’s work.
3. The need to engage proactively with the range of representatives from alternative energy technologies, including for example, geothermal, solar thermal, biomass, wind, and tidal industries.
4. Developing a common message that is understood and supported by government, industry and the general public is also critical. Suggestions for this common messaging include the need:
 - a. To include energy efficiency as any part of the mitigation solution
 - b. For increased communication about CCS and other alternative energy technologies that is easy to understand, accessible and in the right format
 - c. To understand the sense of urgency to address climate change across all levels of society through communicating the impacts of climate change and range of mitigation options.
5. Timing – not only the time needed to communicate with the range of stakeholders about the findings of the CS Taskforce. But also, the time required for exploration and proving storage sites, as well as the actual time required to build a project.
6. Siting - both for transport pipelines and ultimate storage sites. The CS Taskforce is producing schematic versions of maps showing emissions nodes, pipeline connections

and storage regions which need to be communicated proactively to the communities that will be impacted by the infrastructure.

In meeting the challenge of how best to manage and coordinate a communication strategy to complement the work of the CS Taskforce, this report suggests consideration should be given to a hybrid communication model. This would combine a centralised coordinated model that provides overarching messages and direction, with some opportunity for individuals to promote their own areas of interest – as long as they are consistent with overarching messages. This idea also includes the engagement of a communications organisation selected through a competitive tender process. Such an organisation would need to have an inherent understating of CCS and other mitigation technologies and would be well placed to address associated issues that may arise through deployment of projects.

Through the process key stakeholders have been identified based on their level of interest and potential to influence the deployment of CCS. All of the stakeholders were mapped onto four quadrants with many falling in the quadrant that required greatest engagement effort. For each of these stakeholders a number of engagement activities have been suggested and these are summarised in table on the following pages. The table outlines a brief rationale for engagement and makes suggestions as to who would be best placed to conduct the engagement.

It is assumed when making the recommendations that any engagement will take into account the observations arising from the risk communication and engagement literature summarised in Section 3 of this document. The literature recognises the importance of public perceptions, their potential for outrage, and the influence these perceptions will have on individual behaviour. It also suggests that process and procedural fairness, including issues of trust and transparency will be critical when communicating CCS.

Summary of Communication Activities

No.	Stakeholder	Rationale	Format	Frequency	Responsible
1	Prime Minister Rudd	Key funder and supporter for ultimate deployment	Briefing	Quarterly	Chair & Secretariat
2	Politicians				
	Ministers	Need time to engage and understand significance of issue	Briefing	July, 2009	Chair & Secretariat
	Politicians/backbenchers	Keen to learn more. Can be local supporters for pipeline and demonstration projects	Breakfasts	Annual	CSIRO
	Support staff of politicians	Will be integral in establishing their politicians' position on CCS	Large Group	Annual	CSIRO
3	Policy makers/regulators				
	Whole of Government	Invite key representatives from key departments to understand the contents of the report	Briefing	July, 2009	Chair & Secretariat
	Treasury & DPC	Critical to ongoing support for CCS	Briefing	Bi-annual	Chair & Secretariat
	Environment departments	Needed to approve project deployment and monitoring and therefore understand associated risks and technological challenges	Workshop	Annual	CSIRO & experts
4	Australian Taxation Office	Have potential to influence policy for CCS projects by alternative incentives such as accelerated depreciation, investment allowances and so forth.	Briefing	Bi-annual	Chair & Secretariat
5	UNFCCC	Integral for how CCS will be dealt with post 2012	Side events	Bi-annual	DRET; CSIRO & experts
6	Financiers and Investors	Essential for project funds over the longer term	Breakfasts	Various	Chair & Secretariat
7	Business Council of Australia, CEOs	Influential community across Australia and can provide indirect support for CCS	Breakfasts	Various	CSIRO & experts; Comms Agency
	Peak bodies, others	Influential stakeholders, need to understand where CCS fits	Conference presentations	Various	Chair & Secretariat
	Alternative energy technology representatives	Need this group to support CCS as part of the portfolio of options	One on One	July, 2009	Chair & Secretariat
8	Celebrities, Opinion leaders	Can be key influencers within lay community	One on One	Various	Chair & Secretariat; Comms Agency

No.	Stakeholder	Rationale	Format	Frequency	Responsible
9	Environmental NGO's	Are generally well trusted by the community and need to be engaged in dialogue in an ongoing way	Workshops	Annual	Chair & Secretariat; CSIRO
10	Journalists				
	Leading CCS journalists	Need to ensure they receive accurate information about the nature of the CS Taskforce report and CCS in general	Small group	Various	Chair & Secretariat, Comms Agency
	Other regional journalists	These can be convened in various regional centres to increase journalists overall understanding of CCS	Large Group	Annual	CSIRO & experts
11	Australian Tax Payers, Voters, Energy Consumers	Low levels of awareness about CCS across the board, need to understand the predicament and likelihood of increased electricity prices	Energymark, Broader comms campaign	Ongoing	CSIRO; Comms Agency
12	Social NGO's	Their support will be critical for ongoing government commitments and also to help lower socio economic constituents cope with rising prices	Workshop	Annual	CSIRO & experts
13	Trade Unions	Critical for translating risks to workers exposed to CCS value chain	Briefings	Various	Chair & Secretariat; CSIRO
14	School children	Can influence and educate other household members as well as create potential workforce for CCS	Curriculum	Ongoing	CSIRO & experts
15	Teachers	Need to understand to implement curriculum. Also can make biggest difference with school children if implemented across the board	PD days, Online chat forums	Annual	CSIRO & experts
16	Locally affected communities, indigenous groups	Critical for project deployment - need to be respected and engaged in transparent manner	Project plans	Ongoing	Project proponents; experts

1. INTRODUCTION

The Carbon Storage (CS) Taskforce has a remit to bring together key stakeholders to develop a National Carbon Mapping and Infrastructure Plan (“the Plan”). The primary aim of the Plan is to develop a road map to drive prioritisation of, and access to, a national geological storage capacity to accelerate the deployment of carbon capture and storage (CCS) technologies in Australia. As part of the CS Taskforce, the Community Working Group has a remit to examine potential community concerns about carbon storage issues, and make recommendations on potential approaches for addressing them. This report summarises the work of that group and makes recommendations for communicating the Plan and wider issues associated with CCS.

A communication strategy is a useful tool for linking the objectives of an organisation with stakeholders who could influence those objectives (Grunig, Grunig & Toth, 2007). For the CS Taskforce, the process centred on those stakeholders with an interest and influence over access to geological storage, and the subsequent deployment of CCS technologies. The resultant communication strategy provides suggestions that will enable the CS Taskforce members to pro-actively engage stakeholders, build trust and form alliances around mutual goals and benefits.

2. CONTEXTUAL CONSIDERATIONS

2.1 Increased momentum

The past few years have seen momentum gather for the deployment of CCS particularly at the highest levels of government. This is best illustrated by the combined International Energy Agency (IEA) and Carbon Sequestration Leadership Forum (CSLF) report *Near Term Opportunities for Carbon Capture & Storage* presented to the Group of Eight (G8) leaders in Japan in June, 2008. From these recommendations the G8 endorsed the report stating:

“we strongly support the recommendation that 20 large scale CCS demonstration projects need to be launched globally by 2010, with a view to supporting technology development and cost reduction for the beginning of broad deployment of CCS by 2020”.

As a result of this support, governments and industry have mobilised their efforts to deploy CCS. This is best illustrated by the recent financial commitments espoused by governments from around the world, to assist in the accelerated deployment of CCS. Australia is front and centre in this move to deploy CCS through its commitment to the Global Carbon Capture and Storage Institute (GCCSI), the National Low Emissions Coal Council (NLECC), and as part of this, the CS Taskforce. As part of its Clean Energy Initiative (CEI) the government has committed \$2billion for industrial scale CCS Flagship projects which are geared at helping to accelerate the deployment of low emission coal technologies.

2.2 Size of investment required

Unfortunately, this current state of play for CCS is not well understood across broader Australian society. As an emerging low emissions energy technology, CCS remains relatively unknown by most lay people, with the size of investment required and the flow-on effects of this investment, difficult for most individuals to comprehend. And this is true even for those with an interest in CCS. To date, for most Australians, energy is a low interest commodity but its impact is not. There is an increasing awareness of the energy/climate change nexus with many demanding action for a lower carbon electricity supply.

However, Australians still expect continuous 24 hour electricity, but with the supply and demand gap rapidly closing, coupled with the need to mitigate greenhouse gases, particularly from coal-fired power stations, the landscape for a secure energy supply will change significantly over the coming years. The size of investment required for deployment of the range of low emissions energy technologies is likely to be one of the major hurdles for the deployment of the portfolio of energy technologies including CCS. This portfolio cost should be one of the focal points in communicating the results of the CS Taskforce's work, not just specific components.

2.3 Alternative technologies

There are currently a number of industries developing a stake in the low carbon economy. These include representatives from alternative energy forms including geothermal, solar thermal, biomass, wind and tidal. Each technology has associated pros and cons particularly in relation to its time to market, costs involved and underlying life-cycle impacts. A critical evaluation of criteria such as these will ultimately decide which technologies, including CCS, will be deployed because of their competitiveness.

It will be important for the Government to proactively engage with the range of representatives from alternative energy technologies to allow them to understand the findings of the CS Taskforce, the likely costs involved with CCS and what deployment can be realistically expected over the next 10 – 15 years. Proactively engaging representatives of alternative technologies to gain their support for CCS will help to dismiss the opportunity for the media and environmental groups to play one technology off against others.

The conflicting messages surrounding the range of energy technologies can be particularly confusing to the general public so anything that can help to avoid such a situation is a worthwhile investment. It will be far more powerful, when the results of the CS Taskforce are reported, if representatives from solar and geothermal technologies express some support for the recommendations alongside acknowledging the investment that they will receive for their particular technology.

2.4 Common message

In addition to engaging alternative technologies at an early stage, a common message that is understood and supported by government, industry and the general public will be critical when releasing the findings of the CS Taskforce. This is not hard to do but should be a priority for those involved in carbon mitigation both at government, research and industry level.

Suggestions for common messages that arose in the recent workshop with environmental non-government organisations (ENGOS) included:

- a. Any solution for greenhouse gas mitigation should include energy efficiency measures. It was felt that the Australian Government – at all levels – has a responsibility to promote and raise awareness of energy efficiency measures available to the average householder and industry.
- b. There is a need for increased communication about CCS and other alternative energy technologies that is easy to understand, accessible and in the right format to encourage individuals to read and learn more about the portfolio of options. There is currently a range of materials but not all of these are high quality. Working to develop a range of suitable communication materials will assist in gaining greater community understanding of the CCS.
- c. All levels of society need to understand the sense of urgency to address climate change. Currently, not all players understand the level of commitment taking place across governments and other industries. It is important to start communicating about the impacts of climate change on Australia and why it needs to be addressed. Such messages coming from highest levels of government will help to ensure greater support for other initiatives including the CPRS.

2.5 Timing

Timing is another key consideration for the successful deployment of CCS in Australia. Not only the time needed to communicate with the range of stakeholders about the findings of the CS Taskforce. But also, the time required for exploration and proving storage sites, as well as the actual time required to build a project. Unless real projects can be built in the near term, it is likely alternative energy forms may become more competitive with CCS and the opportunity for this technology as a mitigation option in Australia may pass.

A workshop to consider alternate scenarios of “fast” and “slow” deployment was held in May 2009, facilitated by KPMG. Findings showed that there is little difference in the time required to accelerate projects. The message was clear - there is a need to start now if projects are going to achieve anything like the deadlines set by the G8.

The difficulty in achieving such timelines is also demonstrated in the report from the Infrastructure and Transport Workshop Group, in February 2009. The Working Group considered that the first tranche of CO₂ pipelines could be estimated to be at the high cost end of each range and would require total lead times of at least 5 years. This reinforced the findings

of the scenario workshop which suggests that even with a “fast” approach to deployment, there are various processes which cannot be avoided that will slow or inhibit the opportunity for early deployment of large scale demonstration projects in Australia.

2.6 Siting

The issue of siting, both for transport pipelines and ultimate storage sites, is also a key consideration for communication. The CS Taskforce is producing schematic versions of maps showing emissions nodes, pipeline connections and storage regions. If this information is not communicated proactively to the communities that will be impacted by the infrastructure it may also delay projects. Fortunately, the CO2CRC and the Zerogen projects offer some good examples of positive engagement with their local communities around such issues and their experiences have been documented in Appendix B of this report.

Within the suggested communication activities, particular attention is paid to ensuring local communities that are likely to be affected, are engaged. These include local government to the range of citizens interested in learning more about the technology. The importance of this communication is best evidenced by the issues that are arising in certain jurisdictions in both the USA and Europe where local communities that have concerns about CCS are already impacting on project deployment. Conversely, there are positive examples where communities in both the USA and Europe have embraced the technology and are very supportive of the projects in their local community. Specific attention to best practice in stakeholder dialogue will be critical for projects in these early stages and suggestions for this have been made in the next Section.

Figure 1 Cementing the surface casing at the Decatur Project, Illinois, USA.



3. COMMUNICATION CONSIDERATIONS

3.1 Risk communication

People face many decisions where they need trusted, comprehensible information about risks and benefits. What they get is often disappointing.

Baruch Fischhoff, 2009

In a recent presentation at the University College of London, Professor Ortwin Renn provided a number of considerations for the successful deployment of CCS. Renn (2009) outlined that there has been a long history of examples where public opposition has been able to impact on public policy around technology transfer (e.g. first railway lines, nuclear energy and centralised IT). Therefore, when considering introducing any new technology it is imperative to consider public perceptions, their potential for outrage, and what their previous responses to other technologies have been. It is important to recognise that individuals will behave based on the perceptions that they hold and it is imperative to understand these perceptions to be able to address them accurately (Renn, 2009).

When discussing previous technological transfers both successful and failed, Renn (2009) suggests:

1. The associations people hold about the technologies are more important than instrumental options and if they hold negative associations they are likely to be more involved in public protest.
2. Fairness counts and it is important to recognise that although a technology can present benefits to one, it can equally present risks to others. Public opposition will be governed by their perception to the problem and the risk it presents to society.
3. Risk is perceived to be heightened when there is a greater probability of harm. In relation to CCS individuals are likely to be concerned about time horizons because CCS is not currently an institutional part of our energy landscape. Because society is generally unfamiliar with the technology it is therefore seen as a risk. However if the perceived risk of harm is low then it is less likely to be a problem.
4. Process is very important. Where projects are being sited it will be essential for communities to understand why the site has been chosen, what the process for CCS involves and what are the current uncertainties relating to the technology. Lack of due process or procedural fairness will heighten opposition to the deployment of any energy project, not just CCS.
5. Trust is also critical and was considered more important than institutional control. This means that it is critical for open, honest and transparent communication at all stages of any technology, including communication to wider society not immediately impacted by a specific project.

Renn (2009) distinguished differences about CCS from other failed examples of technology transfer. Firstly, that CCS currently has a mixed image. It has positive associations in that it presents a huge opportunity to help mitigate greenhouse gas emissions and move towards a solution for climate change and therefore, if individuals are serious about climate change then they will consider CCS as part of the portfolio. Negative associations tend to be focused on CO₂ being seen as a waste as well as extending the fossil fuel industry. The second difference is that CO₂ is generally considered non toxic or environmentally harmful which is different when compared to nuclear waste and finally Renn suggested that CO₂ is familiar to every household - it is not seen as artificial or exotic.

Renn (2009) closed with some cautions, which are relevant for the CS Taskforce. He suggested that future issues of conflict are most likely to be around siting if issues of fairness, property values and NIMBY are not addressed both for projects and transportation and pipelines. And that unless CCS is embedded into a consistent long range energy plan, that reduces greenhouse gas emissions, CCS will gain less traction across society. This issue was also raised in the ENGO workshop and highlights the need for a clear model of what the long term mix of energy technologies might look like to achieve a low carbon future for Australia.

3.2 Principles for effective engagement

A number of common themes emerge from the literature regarding principles for effectively engaging communities which are of relevance to the CS Taskforce. Many of these are reflected in the work done by the Otway project and ZeroGen outlined in Appendix B. Littleboy, Gooch and Ashworth (2005) identified the following principles which included:

- the need for objective information;
- the need for involving the community in decision making processes through consultation and dialogue;
- the need to raise the level of awareness, especially in local areas about technologies which will have a likely impact on their community;
- any process must consider the diversity of interests, knowledge and cultural values within the community;
- adequate resources need to be available for the consultation process including catering for minority groups and ensuring flexible scheduling to enable maximum groups of people to be involved;
- advisory committees are an important addition to ensure the agenda is balanced. They can also become a point of contact for concerned community members to raise issues and feedback into the process;
- the importance of relationships cannot be underestimated which therefore requires open, honest and transparent communication;
- trust is also essential for information flows – this is particularly relevant to who is the messenger in any communication or engagement activity; and

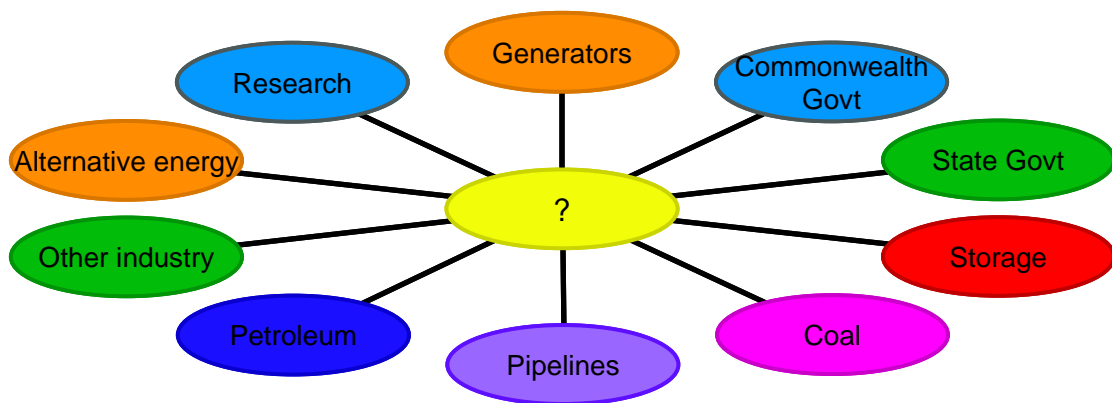
COMMUNICATION CONSIDERATIONS

- risk issues that are of most concern to consumers are those that more directly affect their lives and families which include personal security and safety; financial security now and in the future; health and well-being.

4. COMMUNICATION MODELS

There are a number of organisations that need to be included in the communication of CCS. These are illustrated in Figure 2 below. The biggest challenge is to decide the most appropriate way to manage a communication strategy and how coordinated the approach should be. Given the diverse nature of players, a more decentralised mode would make it easier for players. However, previous experience has demonstrated that a totally decentralised approach to communication can lead to wasted efforts, conflicting messages and general confusion in the audiences.

Figure 2 Key players for communication



One obvious solution to these problems could involve a centralised body sponsored by the players to be responsible for the coordination of all communication activities. While this can have its advantages, in that there is a common consistent message and groups can leverage reputation from one another, in reality it can be sometimes difficult to achieve because of different levels of interest in the outcomes. Additionally, it may be difficult to reach agreement on the key messages to be delivered and therefore involve a higher transaction cost.

In reality it is probably best to aim for a hybrid model which combines the use of a centralised coordinated model to provide overarching messages and direction, with some opportunity for individuals to promote their own areas of interest - as long as they are consistent with the overall messages of the coordinated response. Such a coordinated body could sit in a number of places but would need to be outsourced to a proactive communications company responsible for the overall development and delivery of messages to the group. A company that understands the issues associated with CCS and other mitigation technologies would be most appropriate as it would mean that they understand the balance of information required for the range of stakeholders, including the lay public. Using the government standard procurement guidelines with a well documented specification will help to target those organisations most suitable for such a task.

5. KEY STAKEHOLDERS

5.1 Stakeholder literature

Creating a shared vision towards a low carbon future is a challenge, particularly for carbon capture and storage. Different groups have different stakes in the future and hence different views about the path to a low carbon future. Understanding *who* the stakeholders are and *what* their interests in low emission technology are, can help the CS Taskforce to more accurately identify and achieve socially acceptable outcomes.

For the purpose of this study, *stakeholders* have been defined as:

...those who have an interest in a particular decision, either as individuals or representatives of a group. This includes people who influence a decision, or can influence it, as well as those affected by it

(Hemmati 2002) p2

Schlossberg and Shuford (2003 p.7) group stakeholders into the following three categories:

- those affected by a decision or a program;
- those who can bring important knowledge or information to a decision or program; and
- those who have power to influence and/or affect implementation of a decision or program.

Each of these categories has helped to inform the stakeholder groups needed to be considered for communicating the results of the CS Taskforce. To assist in identification of key stakeholder groups, members of the CS Taskforce were asked to identify those stakeholder groups which they considered important for communication. Using a matrix diagram, stakeholders were mapped based on their potential to influence and their level of interest in CCS. This helped identify those stakeholders that require the highest level of engagement (i.e. those falling in the top left quadrant). The results of the stakeholder mapping activity are shown in Figure 3 below.

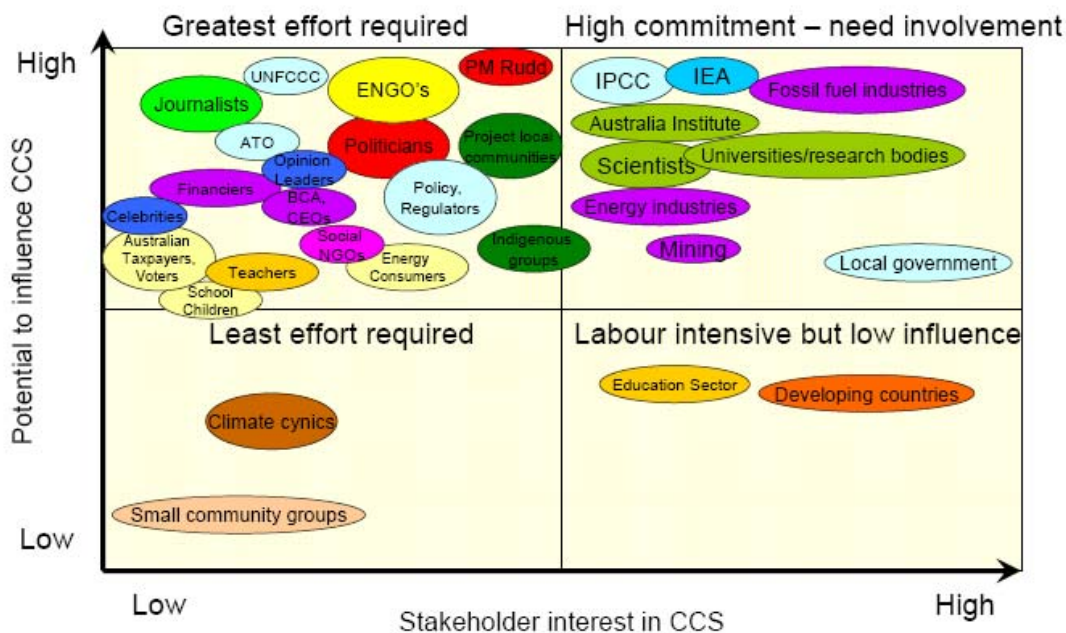
5.2 Stakeholder mapping

An alternative way of stratifying the range of stakeholders in relation to communication needs is to divide them into four main categories (Ashworth, 2007, p.21). These four categories have also influenced the final communication strategy suggested in this report. The categories include:

1. Influential others – these are what have often been described as the ‘Qantas Club’ of Australia. Ashworth (2007, p.21) identified these as the critical audience for influencing CCS deployment and therefore warrant a reasonably high resource investment. In many ways, the list of these influencers correlate to many in the left hand quadrant of the stakeholder map which for ease of identification has been highlighted further in this report.

- Community – the wider community needs to be engaged in way that allows them to develop some understanding of the context of the energy situation, the reason for the high investment of taxpayers’ money and also some basic understanding of the pros and cons of the various mitigation options, including CCS. In the stakeholder map these are most often reflected as the voters, taxpayers and energy users.

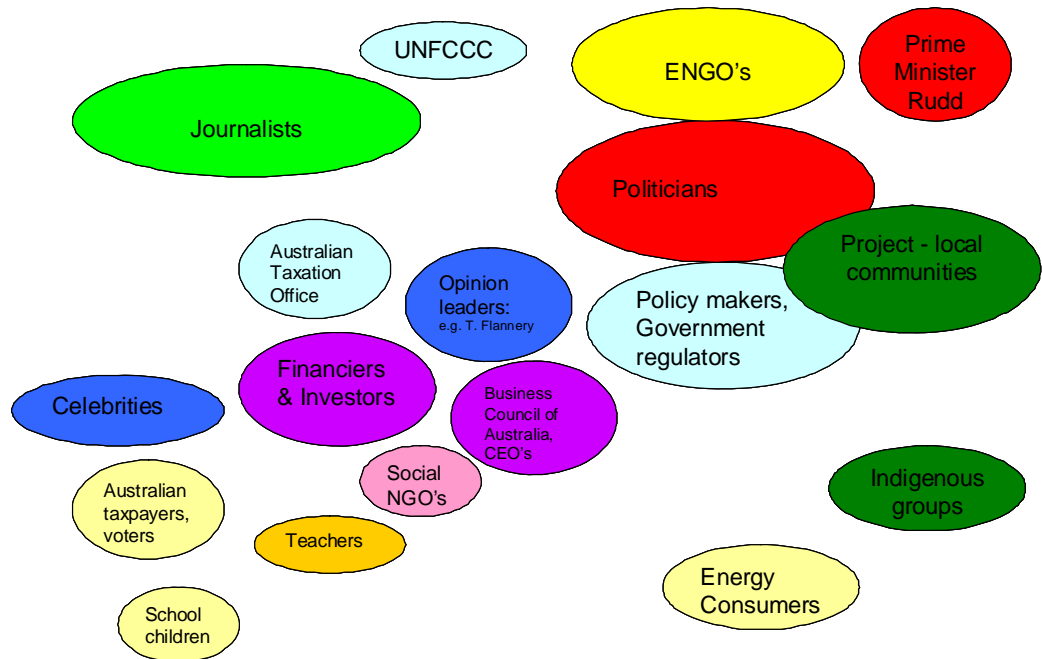
Figure 3: Map of key stakeholders for developing a communication strategy



- Education – this group includes all levels of education, including young school age children through to the tertiary sector level. It has often been acknowledged that educating children on issues in relation to a low carbon economy is a powerful communication tool as they are more likely to take messages home to share with others in their family. Those often too busy to engage with the topic. Within this category are wider elements that can be used to educate and inform including museum displays, science weeks and other special events and forums where information about climate change, CCS and other technologies can be used to communicate about the portfolio of mitigation options.
- Project specific – this group is a special group of key stakeholders that have the ability to halt a project based on objections they might raise at the local level. Evidence of this has already been seen in cases such as the Carson project in the USA and Barandrecht in the Netherlands. Most of the communication efforts for project-specific work would be done by the project proponents and there are examples of ‘best practice’ developing from projects to date. This information has been included in Appendix B of this report.

KEY STAKEHOLDERS

Figure 4: Stakeholders requiring greatest efforts of communication



6. SUGGESTED COMMUNICATION ACTIVITIES

6.1 Greatest effort required

All of those identified in Figure 4 require some specific communication and engagement activities and ideas for this are detailed below and then summarised in the spreadsheet in Appendix A.

1. Prime Minister – Although engaged and supportive of the concept of CCS, best demonstrated through the establishment of the Global Carbon Capture and Storage Institute, the level of investment required that has been identified by the work of the CS Taskforce is likely to exceed his expectations. It will be important that the Prime Minister is well briefed on the significance of the investment and appreciates the urgent timelines required for CCS deployment presented in the Plan.
2. Politicians – this key stakeholder group could be further divided into Ministers and then the wider population of Australian politicians/backbenchers.
 - a. Ministers should receive a special briefing on the findings from the CS Taskforce soon after its completion. This will ensure they have adequate time to engage and understand the detail involved in the report and its implications. Because of their working knowledge of the document, this communication would be best done by the Chair and Members of the Secretariat, perhaps through an invitation extended to other Ministers from the Minister of Resources, Energy and Tourism.
 - b. Politicians/backbenchers – do not always have an in-depth understanding of the complexities surrounding the energy debate and the issues required to transition to a low carbon economy. However, many express an interest to learn more. An engagement activity extended to all politicians, presenting the portfolio of options for climate mitigation - Energy Technology 101 - would help to develop their understanding of the complexities of the issue. CSIRO is well placed to complete this activity as it has already run a similar briefing on climate change and energy is a natural follow on.
3. Policy Makers/Regulators – this group is not really a single entity but rather a complex group of government representatives across a number of portfolios. It would be beneficial to spend time identifying the key representatives, both at a Federal and State level that are likely to have some engagement with CCS over its lifetime and require more information. Activities worth considering include:
 - a. Whole of government briefing – prior to public release of the CS Taskforce report it would be beneficial to invite key representatives from a range of relevant departments, e.g DPC, DCC, DEWHA, for a briefing on the state of play identified by the CS Taskforce. This allows each of the individual department representatives to engage with the enormity and urgency of the

SUGGESTED COMMUNICATION ACTIVITIES

situation. Prioritising the stakeholders in this way also elevates them as being considered important in the discussion which will help to create an ‘in-group’ of supporters of the report.

- b. Federal Government Treasury and PM & C representatives – these two departments are integral to ongoing commitment to project funding. It is critical that these representatives are engaged early in the release of the CS Taskforce report so that they understand the size of investment required.
 - c. Environmental department representatives – these will be critical to the successful deployment of CCS projects. They need to understand how the storage process works and exactly what is involved when they are asked to approve specific applications relevant to projects and pipeline siting. As a result, they require some targeted information sessions, which may need to be repeated on a regular (possibly annual) basis to account for turnover of key staff in these agencies.
4. Australian Taxation Office – warrant a separate engagement strategy to other policymakers and regulators, given its potential to influence policy for CCS projects by providing alternative incentives such as accelerated depreciation, investment allowances and so forth. To be effective at implementing this, they need to be engaged to understand the scale of investment required and the early mover risks that many project proponents may have to face with the earlier projects. Targeted briefing sessions on a regular basis are recommended to ensure some engagement with industry players.
5. United Nations Framework Convention on Climate Change (UNFCCC) – although somewhat removed from Australia, this group is currently grappling with how CCS will be dealt with in the post-2012 regime. Issues such as how CCS is reported and whether it is recognised in the Clean Development Mechanism (CDM) will ultimately have an effect on the global deployment of CCS. Currently in the process there are a number of the G77 countries who are displaying opposition to these issues and therefore it will be useful to ensure that proactive engagement of these stakeholders continues to occur in the lead up to Copenhagen in December, 2009. Specific capacity building activities, including communicating the way the CS Taskforce operated, would be highly regarded by some governments, particularly those in the South East Asia region. This could be done through workshops and continued coverage of CCS at side events. CSIRO and ECN in the Netherlands are already discussing an opportunity for the AWG in Bangkok in September.
6. Financiers and Investors – need specific engagement because of the size of investment required for projects. As specific demonstration projects become more concrete in nature, supportive financial packages will be critical to ensure ongoing success of projects. It is therefore essential that relevant financial representatives understand the nature of the businesses being deployed. It was highlighted from the finance workshop *that in a number of cases, the nature of the risk identified or the level of uncertainty was so high that the market could not bear it and investment would not occur at any level of return. In particular, policy uncertainty was seen to be a risk that would prevent investment unless resolved. Similarly, community acceptance was seen to be a necessary requirement for financing of CCS projects* (Deloitte, Touche, Tomatsu, 2009). It is important to address

these issues with this group of stakeholders and this would be best done through ongoing breakfast briefings to keep this group informed of CCS developments.

7. Business Council of Australia, CEOs, peak bodies – this group is influential within the Australian community and can provide indirect support for CCS across communities. This stakeholder group is likely to be more supportive of CCS if they are aware of the tradeoffs between low emission technologies, and the benefits that CCS will bring to the table for achieving a low carbon economy. Time spent educating this group on the pros and cons of the portfolio of options will ultimately help deployment within Australia. This could be done using the large group process developed by CSIRO or a series of invitational breakfast briefings to members of this group.

- 7. PEAK BODIES AND OTHER INFLUENTIAL ORGANISATIONS SHOULD ALSO BE CONSIDERED UNDER THIS GROUP BECAUSE OF THEIR LEVELS OF INFLUENCE. MOST PEAK BODIES HAVE ANNUAL CONFERENCES AND IT WOULD BE USEFUL TO TARGET EACH OF THESE OVER THE COMING YEARS AS WAY OF UPDATING THEM ON THE PROGRESS OF CCS DEPLOYMENT AND ALLOW THEM OPPORTUNITIES TO ASK QUESTIONS. SEE SECTION 7**

SUGGESTED COMMUNICATION ACTIVITIES

- a. Key Dates for more details and suggestions.
 - b. Alternative energy technology representatives – as discussed earlier in this report, mixed messages about the range of mitigation technologies, can be confusing to the general public. Proactively engaging these representatives to gain some nominal support will help to reduce the option for dissenters playing other technologies off against CCS. This is best done through individual one on one briefings.
8. Celebrities, Opinion leaders, e.g. Tim Flannery – these stakeholder groups have been grouped together because they represent similar stakeholders in their levels of influence. Because this group is quite specialised and small, it would require targeted briefing sessions to ensure the relevant individuals understand the current state of play not only for CCS but all low emission technologies. Where possible, identifying a handful of individuals, be they sportspeople, musicians or actors that can understand the issues surrounding low emissions technologies would be helpful in raising the profile and general support of CCS if at all possible.
 9. Environmental NGO's (ENGO's) – following the workshop with ENGO's, a number of recommendations were made to the CS Taskforce and many of these recommendations have been highlighted within this report. This group needs to be engaged in the ongoing discussions about CCS, not least because of their trusted position by citizens with strong environmental beliefs. Positive ENGO support will be helpful at the project deployment stage. The workshop was a positive way to begin the dialogue and it would be useful for the CS Taskforce to continue this engagement, perhaps even sharing the results of the report to the select group of representatives that express an interest in climate and energy. This would allow them to gain first hand knowledge of the rationale for the direction of CCS in Australia and should ultimately help to bring about more general support.
 10. Journalists – this influential group was also part of a wider analysis on behalf of the CS Taskforce. The recommendations arising from the analysis included:
 - a. Proactively engage with all journalists, urban and regional alike, including those that write infrequently on CCS to ensure they have the appropriate information to write about the technology.
 - b. Drop the term “clean coal” where possible and move to the term “low emission”.
 - c. Promote the alternative ways that CCS can assist in mitigating greenhouse gas emissions besides applications attached to coal. For example, oil and gas, heavy industry and biomass potential.
 - d. Target more mainstream media, such as women magazines and commercial television stations.
 - e. Enlist the wider use of trusted experts including scientists and NGO's to ensure more balanced and positive arguments for the technology are promoted.

- f. Proactively make announcements in relation to CCS as a way of raising awareness and attracting more media attention.
 - g. Conduct further research to investigate, how the public read and interpret articles about CCS. Within this research, test the effects of the range of expert information and how that effects individual perceptions.
11. Australian Tax Payers, Voters, Energy Consumers – Currently knowledge and awareness of CCS is relatively low across Australia. Research has demonstrated that early engagement on CCS tends to bring about more positive attitudes towards the technology. Therefore, targeted communication to bring about low level awareness of CCS would be helpful in gaining initial support for deployment of the technology. Energy consumers have been included with this group as they are likely to be a range of individuals and organisations. Ultimately, as we move to a low carbon economy electricity will become more expensive so communicating this expectation early will be helpful for all energy consumers to allow them to prepare for this and would require similar information sharing activities.
- a. CSIRO currently runs Energymark, which is a community based education tool, and could easily be rolled out on a wider scale. It requires relatively small investment but can bring about large returns, including lowering individual household carbon footprints while educating them about the range of low emission technologies.
 - b. Other accessible information should be made available through websites to allow individuals the opportunity to access the information they require about CCS and other mitigation options.
 - c. It would be timely for the Australian government to consider a broader communication campaign about climate change, the range of options for mitigation including energy efficiency and some of the initiatives being undertaken for climate adaptation. Given the significant amount of investment by the Australian government this would help to bring about greater support. Climate change is recognised as an important issue by the majority of Australians and as such a campaign would allow the government to be recognised for doing something proactively as well as raise local awareness about the reason for investing large amounts of public money. Such an approach would only be successful if other government departments were supportive of the campaign. Given that DEWHA are about to launch an energy efficiency campaign, additional information on other mitigation options could become a sensible additional focus to a whole of government approach.
12. Social NGO's – should be targeted for early engagement for a number of reasons. As an influential group with many government agencies it will help to have their support. However to gain this support they need to understand the role of CCS in mitigating greenhouse gases. It would be useful to hold a workshop to inform them on the portfolio of options for carbon mitigation, where CCS fits and the likely costs involved. Social NGO's will also be useful in helping to assist low socio economic households deal with the impacts

SUGGESTED COMMUNICATION ACTIVITIES

of the inevitable increases in the price of electricity as we transition to a low carbon economy.

13. Trade Unions – will need to understand the implications for workers who will be involved in any part of the value chain of CCS. It is worthwhile spending time ensuring union representatives understand the process of CCS, the opportunities it presents and where concerns might lie. There are already established links with unions and providing briefings to higher level union representatives would be a critical starting point. The representatives can then advise on the best way to inform their workers depending on work requirements.
14. School children – it has often been recognised that educating children is a positive way for raising low level awareness of larger social issues in Australian homes. This is perhaps best illustrated through the quit smoking and skin cancer initiatives. Climate change mitigation is another topic that can equally be dealt with in schools to raise awareness of the issues. Therefore, inclusion in the curriculum should be obligatory. Additionally, at the secondary and tertiary levels, raising awareness of the opportunities presented by this industry could provide an additional way of increasing the capacity of Australia in this area.
15. Teachers – are an obvious target for information about the range of carbon mitigation options. Materials are being developed around the world on the topic and these need to be promoted across schools. Additionally, creative ways of accessing teachers, through workshops on professional development days and on line chat sessions will be helpful in raising their understanding of the topic, thereby increasing their confidence to teach the subject within their classrooms.
16. Locally affected communities, indigenous groups – this group of stakeholders will require specific targeted engagement. There are already a number of lessons that can be learnt from existing demonstration projects such as that done by the CO2CRC and the US Regional Partnerships sponsored by the Department of Energy (DOE). There is already evidence of projects possibly being derailed through local opposition which on the most part seems to have arisen because of a lack of informed constituency. All projects across the world are currently being reviewed in work done by the GCCSI which will ultimately lead to a tool kit of best practices being developed. In the mean time considerations should include:
 - a. Project specific – starting with the key stakeholders within the local community such as the mayor, local council representatives and other influential citizens. These can be anything from a particular farmer, fire fighter, chemist or so on. Time spent identifying these individuals will ultimately aid the successful project deployment. Additionally, making sure that a project representative is always available to answer questions and concerns as they arise is also essential – this can be in the form of a community liaison officer who is recognised as the key contact point. Honest and open communication at all stages of the project is also critical for the success of the project. Much of this work will be done by project proponents, however, it can be appropriate at certain times in the project plan to bring in “trusted experts” either NGO’s, scientists, and others to share information with local communities.

- b. Pipeline siting – similarly, a number of communities will be affected by the project pipelines recommended by the CS Taskforce. Each community will require a similar sophisticated engagement plan to explain the ramifications of having a pipeline passing through or near a community.

7.1 High commitment – need involvement

The list of stakeholders in the right hand quadrant of Figure 2 includes most of those with a vested interest in CCS or other low emission technologies. For example, academics and researchers, fossil fuel industries, mining, energy technology representatives, IPCC, IEA and so forth. Because this group is highly committed they generally do not require proactive engagement however, they can become a useful resource for the communication activities outlined above. Most of the academics and research organisation representatives would be seen as trusted sources of information and they can be critical in information dissemination at all levels of society. It is important to recognise the value these stakeholders offer and ensure plans to utilise their expertise are well structured and thought out in advance.

8. KEY DATES

There are a number of peak bodies and other influential groups that hold annual conferences. These should be targeted by members of the CS Taskforce or through the wider communication group to ensure opportunities to communicate about CCS are not lost or overlooked. The table below helps to set out some of the dates however, over time this is likely to be more heavily populated as other obvious conferences come to light.

Table 1 List of key conferences with likely dates for events to be convened.

Conference	Location	Date
CWA Annual Conference	Unknown	TBC
APPEA Conference	Darwin	31 May – 3 June, 2009
Greenhouse 2011	Unknown	March 2011
Minerals Council of Australia – Sustainable Development Conference	Adelaide	October 2009
NSW Minerals Council HSE Conference	Wollongong	April, 2009
APIA	Cairns	October 2009
Trade Unions	ACTU Triennial	June 2009
Climate Action Network Australia	Unknown	March 2010
National General Assembly of Local Government - Australian Local Government Australia	Canberra	21-24 June
A & NZ Climate Change & Business	Melbourne	August 24-26
Australian Labour Party National Conference	Sydney	30 July – 1 August
The Greens Party National Conference	Melbourne	6-8 November
Australian Liberal Party National Conference	TBA	
National Generators Forum	Unknown	
Energy Users Association of Australia	Sydney	28-29 October
Science Week		15-23 August

KEY DATES

United Nations Climate Change Conference	Copenhagen	7-18 December
Australian Youth Climate Coalition - Power Shift Conference	Sydney	11-13 July

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APPENDIX A – SUMMARY OF COMMUNICATION ACTIVITIES

No.	Stakeholder	Rationale	Format	Frequency	Responsible
1	Prime Minister Rudd	Key funder and supporter for ultimate deployment	Briefing	Quarterly	Chair & Secretariat
2	Politicians				
	Ministers	Need time to engage and understand significance of issue	Briefing	July, 2009	Chair & Secretariat
	Politicians/backbenchers	Keen to learn more. Can be local supporters for pipeline and demonstration projects	Breakfasts	Annual	CSIRO
	Support staff of politicians	Will be integral in establishing their politicians' position on CCS	Large Group	Annual	CSIRO
3	Policy makers/regulators				
	Whole of Government	Invite key representatives from key departments to understand the contents of the report	Briefing	July, 2009	Chair & Secretariat
	Treasury & DPC	Critical to ongoing support for CCS	Briefing	Bi-annual	Chair & Secretariat
	Environment departments	Needed to approve project deployment and monitoring and therefore understand associated risks and technological challenges	Workshop	Annual	CSIRO & experts
4	Australian Taxation Office	Have potential to influence policy for CCS projects by alternative incentives such as accelerated depreciation, investment allowances and so forth.	Briefing	Bi-annual	Chair & Secretariat
5	UNFCCC	Integral for how CCS will be dealt with post 2012	Side events	Bi-annual	DRET; CSIRO & experts
6	Financiers and Investors	Essential for project funds over the longer term	Breakfasts	Various	Chair & Secretariat
7	Business Council of Australia, CEOs	Influential community across Australia and can provide indirect support for CCS	Breakfasts	Various	CSIRO & experts; Comms Agency
	Peak bodies, others	Influential stakeholders, need to understand where CCS fits	Conference presentations	Various	Chair & Secretariat
	Alternative energy technology representatives	Need this group to support CCS as part of the portfolio of options	One on One	July, 2009	Chair & Secretariat
8	Celebrities, Opinion leaders	Can be key influencers within lay community	One on One	Various	Chair & Secretariat;

APPENDIX A

No.	Stakeholder	Rationale	Format	Frequency	Responsible
					Comms Agency
9	Environmental NGO's	Are generally well trusted by the community and need to engaged in dialogue in an ongoing way	Workshops	Annual	Chair & Secretariat; CSIRO
10	Journalists				
	Leading CCS journalists	Need to ensure they receive accurate information about the nature of the CS Taskforce report and CCS in general	Small group	Various	Chair & Secretariat, Comms Agency
	Other regional journalists	These can be convened in various regional centres to increase journalists overall understanding of CCS	Large Group	Annual	CSIRO & experts
11	Australian Tax Payers, Voters, Energy Consumers	Low levels of awareness about CCS across the board, need to understand the predicament and likelihood of increased electricity prices	Energymark, Broader comms campaign	Ongoing	CSIRO; Comms Agency
12	Social NGO's	Their support will be critical for ongoing government commitments and also to help lower socio economic constituents cope with rising prices	Workshop	Annual	CSIRO & experts
13	Trade Unions	Critical for translating risks to workers exposed to CCS value chain	Briefings	Various	Chair & Secretariat; CSIRO
14	School children	Can influence and educate other household members as well as create potential workforce for CCS	Curriculum	Ongoing	CSIRO & experts
15	Teachers	Need to understand to implement curriculum. Also can make biggest difference with school children if implemented across the board	PD days, Online chat forums	Annual	CSIRO & experts
16	Locally affected communities, indigenous groups	Critical for project deployment - need to be respected and engaged in transparent manner	Project plans	Ongoing	Project proponents; experts

APPENDIX B – COMMUNICATION ACTIVITIES FOR AUSTRALIAN PROJECTS

Otway Basin

Supplied by Tony Steeper, Communications Manager, CO2CRC.

In order for the Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC) to gain community acceptance for their Otway Basin research project, a community consultation plan has been in place since January 2005. The plan had an objective of informing the local community about carbon capture and storage and consulting them about the project specifics.

The communication strategy had an aim to:

- Build successful relationships between all stakeholders and CO2CRC;
- Inform the Nirranda community and other relevant communities in Australia about geosequestration;
- Ensure that key landowners hear of project activities from CO2CRC first and not indirectly via another source
- Provide opportunities for two-way communication between CO2CRC and the community; and
- Ensure the community understands the concepts behind the geosequestration pilot project.

Project Stakeholders

Identified stakeholders included:

- Key landholders
- Local residents and businesses
- Local government (Moyne Shire) and neighbouring councils
- Local media
- Local State Upper and Lower House MPs
- NGOs – WWF, ACF, indigenous community
- State and Federal Ministers

Consultation activities

Consultation activities conducted during the planning and construction phase included:

- Face-to-face meetings with key stakeholders and landholders

- Social research into community perceptions of CCS conducted by an independent organisation which led to the formation of a community reference group which is currently active and meets approximately twice a year. Meetings are open to the public.
- Initial project info packs distributed to 1200 households
- Advertisements in local media
- Public meetings to inform the local community about geosequestration and the pilot project
- Distribution of a regular project newsletter to the Nirranda community, stakeholder groups and the local media

Consultation activities conducted during the operational phase include:

- Development of a community reference group that meets regularly to identify and address any stakeholder issues relating to the pilot project and update the community on progress. Monitoring data is openly shared at these public meetings.
- Regular briefings for
- Local State Upper and Lower House MPs
- NGOs
- State and Federal Ministers
- Distribution of a regular project newsletter to the Nirranda community, stakeholder groups and the local media
- A locally-based Otway Project Liaison Officer has been engaged to liaise with the local community and to run regular site tours of the project for community, government and research groups
- Extensive resources on CCS on the CO2CRC web site
- Monthly CO2CRC e-newsletter to subscribers and stakeholders

Social research

Independent social research was commissioned to inform the consultation process, monitor community attitudes to the pilot project and geosequestration, and to provide the community with additional opportunities to comment on the pilot project.

The research was conducted between March and July 2006 and used qualitative and quantitative research methods. The qualitative methods included two focus groups, one in Nirranda and the other in Warrnambool; and five in-depth interviews among Nirranda landholders.

Information was gathered from two different communities—one comprising of mostly dairy farmers living in the immediate area of the pilot site, and the other in a regional town about 20 km away. There was a marked contrast between the two communities in levels of education, income, knowledge about geosequestration and other greenhouse gas mitigation activities, and the types of concerns they had about a CCS pilot project.

Attitudes toward the project varied and ranged from apathy to being engaged and wanting to know more. Many of the people surveyed indicated a wish to have more information before they can make up their mind about CCS.

Notable results from the research showed that:

- the local community preferred to be informed about the project before the broader community and the media;
- the personal approach was preferred over impersonal, large public meetings or finding out through the media
- it was important to make information about the project clearly available and transparent to the community, but allow the community to initiate engagement rather than being too intrusive
- it is important to be clear, concise and factual – residents do not want to hear ‘spin’ but facts.

Conclusion

The most successful aspects of the consultation strategy so far have been:

- Face-to-face engagement with landholders and other stakeholders, including government
- A locally-based liaison officer with a good understanding of the local community
- Regular reference group meetings and newsletters – reinforcing that communication channels are open without being pushy
- Provision of concise factual information – in publications and on the web
- Openness and transparency, through tours, briefings and regular meetings.

Least successful aspects have been:

- One landowner who refused access requiring legal action – negotiations are not always successful
- Increasing demand for tours, nationally and internationally, requiring extra resources
- Challenges in communicating complex science to the public

ZeroGen

Supplied by Peta Swindells, ZeroGen.

ZeroGen believes that managing the stakeholder consultation process surrounding the project is critical, not only for the project’s ongoing success, but also to progress the successful deployment of the technology elsewhere in Australia and around the world. ZeroGen’s engagement strategy is well-advanced and is based on early engagement and involving stakeholders and seeking their participation from the start. There is overwhelming evidence that

demonstrates there is a greater willingness of stakeholders to support technology outcomes when participation is sought during the technology development process.

Stakeholders

Stakeholders for the project are wide and varied and ZeroGen identified over 90 stakeholder groups that are involved in the project. ZeroGen's key stakeholder categories are:

- Federal Government
- State Government
- Coal Industry
- Local Government
- Local Community
- Non-Government Organisations
- Local Indigenous Groups
- Investors
- Media
- Research Organisations
- Technology Suppliers.

The interests of each stakeholder group are unique. Stakeholder perceptions, particularly in relation to CCS, represent a key challenge to the acceptance of the project and to the commercialisation of clean coal technologies on a wider scale.

Issues and concerns

Not surprisingly, in ZeroGen's experience the key concern surrounding CCS is that of safety surrounding CO₂ transport and storage and the possibility of CO₂ leakages. Discussions surrounding the existing use of CO₂ to assist with enhanced oil recovery around the world and information about existing CO₂ pipelines that have not experienced any negative effects, helped to overcome most concerns in relation to CCS. Having experts in the field available for meetings and discussions assisted in educating stakeholders and creating more positive attitudes towards the technology and the potential employment and business opportunities that may be generated in the region. Using trusted sources such as CSIRO and CLET during the education process also helped to build confidence in the technology.

Potential economic impacts, particularly employment and business opportunities, are of key concern for local communities. Another key issue ZeroGen has experienced, which applies to all large projects in feasibility stages, is stakeholder and community scepticism regarding whether the project will proceed.

Conclusions

Applications from the ZeroGen experience which may be relevant and applicable to other low emission coal projects include:

- the need for a stakeholder analysis to identify those stakeholder groups with the potential to have the greatest impact on the project, either positive or negative;
- appropriate communication activities to then engage the prioritised stakeholder groups;
- champions within the influential groups that can help to raise awareness of the benefits of the project – particularly for government, investment and insurance agencies;
- the use of community liaison groups, to provide the community with a voice, to meet regularly with the project team;
- proactive engagement with the media to assist in educating stakeholders and the community about the technology and present latest information about project developments; and
- applying the principles of honesty, transparency and respect in all interactions.

ZeroGen's framework for stakeholder engagement has allowed it to anticipate issues that may impact on project stakeholders and attempt to mitigate these issues through timely and targeted engagement activities.



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