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CO2 Capture Project's CCS Stakeholder Issues Review and Analysis

Ioannis Chrysostomidis[a], Shahila Perumalpillai[a], Mark Bohm[b], Mark Crombie[c], Eric Beynon[d], and Arthur Lee[e]*

[a]*ERM, London, UK;* [b]*Suncor, Calgary, Canada;* [c]*BP, Sunbury on Thames, UK;* [d]*ICO2N, Toronto, Canada*
[e]**Chevron Services Company, 6001Bollinger Canyon, San Ramon, California 94583, USA*

Abstract

In 2011, the CO2 Capture Project worked with consultancy ERM to conduct a review of stakeholder's interests. We found a continuum of stakeholder interests which are broadly directed at two different outcomes:

- Project / local level discussions associated with management of social, environmental, health and safety impacts, and delivery of local benefits;
- Global level discussions on climate change and the role of CCS.

At the global level, policy makers are at the centre of the continuum as they put in place a regulatory framework and communicate to stakeholder the role of CCS and the value of the project.

At the project level, the key lessons learned are:

- Start early to raise awareness with politicians, regulators and community.
- Educate local government and other community opinion leaders so they can answer questions about the project.
- Aim to build trust by using multiple channels to provide information and include independent experts.
- Have project people on the ground in the community and identify supportive member(s) of the community.
- Understand community concerns and answer questions – do not assume what information will be needed.
- Good engagement will not necessarily result in acceptance of CCS – it is not a guarantee of success.

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* Corresponding author. Tel.: +1-925-842-7421; fax: +1-925.842-7422.
E-mail address: rlas@chevron.com.

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1. Stakeholders Issues Review and Analysis

The aim of this work was to identify and analyse the main stakeholder concerns and hot spots and provide an overview of options available to project developers and industry for responding to them. It should be noted that the conclusions drawn here have not been tested directly with the stakeholder groups studied in this report.

The study identified eight key categories of stakeholder's priorities related to:

1. Environmental, Health and Safety Impacts
2. Awareness and acceptance of CCS
3. Technical aspects associated with CCS
4. Commercial and local development benefits
5. Policy and legal issues
6. Diversion of resources away from renewable energy
7. CCS as contributing to positive impacts on climate change
8. CCS as contributing a negative impact on climate change
9. Groups with variable positions on CCS and issues of concern.

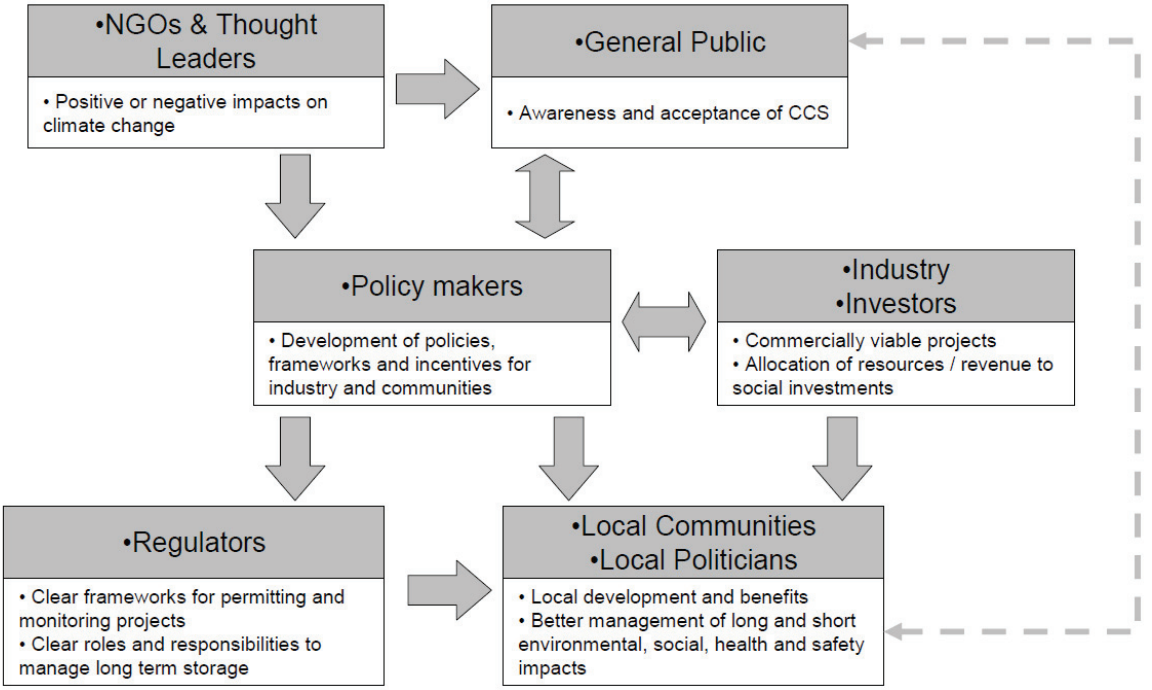
The following table illustrates the main areas of concern to different stakeholder groups, highlighting those that are the focus of their attention, but also noting the full range of issues that were raised in this study.

Table 1. Areas of Concern of Different Stakeholder Groups

	EHS Impacts	Awareness & acceptance of CCS	Technical aspects	Commercial and local development benefits	Policy and legal issues	Diversion from renewable energy	Positive impact on climate change	Variable positions on CCS
NGOs & Thought Leaders	✓		✓		✓	✓	✓	✓
General Public	✓	✓	✓	✓	✓	✓	✓	
Politicians & Policy Makers	✓	✓	✓	✓	✓	✓	✓	✓
Industry	✓		✓	✓	✓	✓	✓	
Local Community	✓	✓	✓	✓	✓			✓
Regulators	✓	✓	✓		✓			
Investors	✓	✓		✓	✓			
Media	✓	✓	✓	✓	✓	✓	✓	✓
✓ Focus of interest ✓ Issue noted								

The distribution of issues shows that the concerns of NGOs and Thought Leaders, the General Public, and Politicians and Policy makers is focused on climate change, the diversion of resources away from renewable energy projects and associated policy discussions. Local communities and regulators are particularly focused on project related environmental, social and health impacts and benefits. Industry and investors have concerns about project impacts and stakeholder opposition at the project level, and also an interest in the policy debate which may impact the commercial viability of CCS. The focus of the interests of different stakeholders suggests that there is a continuum of stakeholder interests which are broadly directed at two different outcomes:

- Project / local level discussions associated with management of social, environmental, health and safety impacts, and delivery of local benefits;
- Global level discussions on climate change and the role of CCS.



Policy makers are at the centre of this continuum as their interest and commitment to CCS in resolving CCS concerns may influence the commitment and support provided to a project in putting in place a regulatory framework and communicating to stakeholder the value of the project.

The most important stakeholders for project development are consistently:

- Policy Makers - National Government;
- Local Community; and
- Regulators.

NGOs, Thought Leaders and the Public, often did not feature as having significant influence for each project. However, it is clear that their interest and level of influence is within the wider climate change debate and the role of CCS in its resolution.

This is not to suggest that project development and the direction of policy discussions on climate change are not linked; indeed emissions targets, carbon taxes and other incentives may make CCS projects commercially viable and facilitate the delivery of local benefits, as companies will have more money to invest in projects. Given these different priorities, management of stakeholder issues in project development and management of stakeholder issues in the broader climate change debate may require different emphases.

At the project level there are two key areas which fundamentally aid in addressing stakeholder concerns: Communication and Engagement and addressing stakeholder issues through the Project Development Process. Key lessons learned at project level are:
Start early to raise awareness with politicians, regulators and community.

- Educate local government and other community opinion leaders so they can answer questions about the project.
- Aim to build trust by using multiple channels to provide information and involve 'objective' stakeholders such as academics or other independent experts.
- Have good project people on the ground in the community and / or find a good representative from the community who will support the project.
- Understand community specific concerns and answer questions – don't assume what information will be needed.
- Good engagement will not necessarily result in acceptance of CCS – it is not a guarantee of success.

Projects that have successfully responded to stakeholders issues have invested more resources than usual at early stages in project development in order to:

- Demonstrate understanding of the geology, containment and monitoring feasibility to company decision review boards and regulators;
- Assess local capacity to regulate the development of the project and manage long term monitoring and liability issues;
- Identify stakeholder sensitivity, raise awareness of key stakeholder groups and understand and respond to stakeholder concerns;
- Avoid and mitigate social and health impacts or perceptions of health impacts during site selection; and
- Develop mechanisms to deliver community level benefits (a value proposition).

Key lessons learned about communication and engagement with global stakeholders are:

- The role of CCS can be discussed more meaningfully only once people (i.e. the public) have a more balanced and complete understanding of the process itself and what it can offer in the wider context of mitigating climate change; investment in broadening this understanding may be of value.
- It is important to consider the perceived trustworthiness of sources when communicating on the topic, and to take care to build and maintain the public's trust in CCS and its proponents.
- Public opinion could be strongly shaped by the media, which has yet to take a great interest in CCS.

- Working with NGOs to undertake research, or set the scope of research will help ensure studies answers the questions and concerns raised by these groups as well as CCS specialists. It can also help to demonstrate how industry is building its experience and technical capacity in CCS.
- Open and regular engagement with a range of NGOs and thought leading organisations and individuals is advisable in order to maintain an understanding of the variety of views of these stakeholders and changes in their views.

The remainder of this paper presents a concise overview of the main stakeholders associated with CCS projects and the issues and concerns they have about CCS based on the findings of the study.

1.1 The General Public

Public perception can have a significant influence on the success or failure of major planned projects involving new technologies and structures. If the general public is not supportive of – or is even actively opposed to – a new technology, it can become politically and/or socially unacceptable. Project developers should therefore be mindful of the potential power of the general public (and the media, as discussed below), to 'make or break' a new technology (regardless of the scientific basis for doing so).

There are two contextual conditions that serve to support acceptance of CCS. First, climate change should be recognised as a problem; and secondly, a significant reduction in CO2 should be recognised as the only solution to the problem. An understanding of climate change and the associated need for concerted action can constitute a prerequisite for acceptance and support for CCS and other climate mitigation options by stakeholders.

The lack of knowledge about CCS in the general public could be due to the fact that there is relatively little information on CCS that is designed for the public, and CCS as a concept requires careful explanation. There can also be confusion about the difference between CCS and the broader category of carbon sequestration.

Part of the reason for the lack of general information about CCS, and the consequent lack of understanding about it, is that to date, little interest in the issue has been exhibited by the mass media in most countries.

A lack of general understanding of CCS and acceptance of its application remains a concern for those developing projects. Current perceptions can include that CCS is expensive, risky and perpetuates fossil fuel dependence.

Public understanding of technical aspects of CCS is not as important as trust in those providing information. The public will often trust universities and research institutions more than government or industry.

1.2 Local Communities

Local communities can have significant influence on the success or failure of projects.

Policy makers, regulators, investors and civil society increasingly advocate for the consultation of local communities and assessment of impacts to communities in the development of major projects. Local communities can also create significant delays to projects, not only by influencing permitting processes,

but also by physically restricting activities with demonstrations or blockades if there are significant levels of concern about a project.

Locals can also have direct access to media, giving them the ability to communicate their concerns to a wide audience. The media often cover high-profile aspects of CCS where a project has failed to obtain planning permission due to highly vocal local opposition.
Key insights on local community issues include:

- Concerns vary from place to place but typically involve safety and financial impact;
- It is possible to identify some 'first principles' for engagement which will help to allay some of these concerns at the outset such as amongst others integrating public outreach into project management, conducting and applying social characterisation, developing key messages and outreach material tailored to its audience
- Engagement will not necessarily result in acceptance of CCS;
- Local opposition is an issue with CCS as with other major infrastructure projects;
- Perception of risk may not equate to actual technical risk, but it is still valid;
- Trust is a key determinant of the success of a CCS project;
- The history of a project location is a key determinant of the project's success;
- Demographic characteristics are important factors in acceptance of CCS.

Responses to CCS are very much determined by context. People tend to object less to CCS where they have already got experience of the energy industry or other large-scale industrial processes. By contrast, in cases where opposition occurs, the fossil fuel industry is generally new, and/or does not have a good long-term relationship with local stakeholders. Thus, the history of a given location can predispose people either for or against a project.

Having a value proposition for the local community from the outset of the project is vital.
The value proposition needs to be developed to respond to the local context; what works in one area may not be acceptable in another. CCS can deliver benefits to communities, e.g. if projects pay for CO2 stored or some enhanced oil recovery revenues are re-invested locally.

1.3 Non-governmental Organisations (NGOs)

Many NGOs perceive CCS as a bridging technology, and are neutral or provide support on the condition that it is a step in moving towards a low carbon economy. Conditional support can mean NGOs vary their position from project to project, e.g. supporting CCS with regard to gas-fired power stations, but not with regard to growing reliance on coal–fired power stations. Other NGOs are still developing their positions on CCS.

Four main positions on CCS have been identified amongst NGOs:

- Positive about CCS and its contribution to addressing climate change
- CCS is a bridge to a renewable future
- CCS may help to provide a bridge but it is an unproven technology
- Against CCS as a technology to support addressing climate change

Key concerns identified amongst NGOs can include:

- Diversion of effort from renewable energy;
- Impact on ecosystems;
- Cost of deployment;
- Threat of leaks;
- Long term economic impacts;
- Continued fossil fuel use; and
- The scale of deployment.

The general public and local communities often identify with or are influenced by NGOs' viewpoints on debates like those surrounding CCS. This makes NGOs a potentially powerful lobby that can be a difficult adversary or a useful ally in project approval.

1.4 Policymakers and Politicians

Politicians at all levels are influential stakeholders in the CCS debate. Their support for the technology at large and for specific projects at regional or local level is critical to success, whilst opposition can prove to be very problematic. As policy makers, politicians set the terms under which CCS must operate and can facilitate or hinder its progress accordingly.

At local level, politicians can distance themselves from a proposed CCS project if they sense public opposition, even if their party is officially supportive of CCS at national level. It is important to develop good relationships with local politicians to try and understand their comfort with or concerns about CCS, and if possible help to avoid politicising a project. Projects take many years to develop, so proponents should therefore engage politicians and policy makers early to help manage risks associated with government approval.

1.5 Regulators

Regulations of relevance to CCS are often not clear cut. Some jurisdictions have enacted or are working on legislation to clarify the ownership and stewardship aspects of underground pore space for CO2 storage sites and for transfer/management of long-term liability. There are other regulatory issues beyond pore space and liability which must be dealt with as well.

Where there is a lack of regulations, the expectations of a regulator can be unclear and unpredictable. This creates uncertainty which may result in delays or complications. The fact that legislation and regulation governing CCS is still not clear cut in many contexts and countries is a problem for the regulator seeking to manage projects in this area.
Governments need to develop comprehensive regulatory frameworks for CCS, and they need to support the regulator to build capacity to regulate CCS.

1.6 Investors

Fundamentally, CCS projects should not present a greater or lesser risk to investors than other infrastructure projects. Typical financial community issues will include:

- The commercial viability of CCS as an investment and potential provision of incentives for industrial deployment of CCS;

- Reputational risks when CCS is associated with coal fired power stations or because of CCS elements; and
- The extent to which employment of CCS will support a bank's climate change and energy policies.

The acceptability of a project including CCS elements to local and other stakeholders is important to investors who want to avoid financing a technology that proves to be socially or politically unacceptable. Investors will expect that these reputation risks are effectively managed by the developer. Therefore, banks will seek to understand how a project is managing stakeholder related issues as part of their investment decision-making process.

Different investors have different drivers for investment:

- Government is an important investor as CCS is often not a commercially viable; government willingness will be linked to the position of policy makers;
- Multi-lateral banks and export credit agencies may provide investment, or facilitate funding in line with international and regional policy objectives;
- Commercial banks will invest in CCS where it supports the banks' internal policies;
- Industry will invest for research and development and where CCS will be commercially viable, for example where CCS can be tied to enhanced oil recovery.

Where banks do have energy and climate change policies they may see value in:

- Project finance for activities like CCS that significantly reduce emissions;
- Corporate finance to companies that demonstrate a willingness and commitment to implementing CCS in order to reduce CO2 emissions.

1.7 Regional Differences

Analysis at a country/region level does not appear to provide an accurate indicator of overall stakeholder views on CCS and associated sensitivity. Sensitivity will be context and location specific reflecting a number of factors including amongst others location, population density, historic issues / circumstances. In this sense, the study reflects common conclusions on broad stakeholder views however, this is not to suggest that all stakeholder groups across the world will hold the same positions described in the following sections.

Finally, although much of the literature reflects upon negative experiences, it should be noted that there are examples of more positive stakeholder responses to CCS, particularly in Alberta, Canada.

Acknowledgements

The CO2 Capture Project (CCP) is an award-winning partnership of several major energy companies, working to advance the technologies that will underpin the deployment of industrial-scale CO2 capture and storage. Current Phase Three (CCP3) members are: BP, Chevron, Eni, Petrobras, Shell and Suncor.