IRIS International Resource Industries and Sustainability Centre

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Public Engagement and Carbon Capture and Storage: Lessons from Lacq

An IRIS Executive Briefing

Based on *Total E&P France's Lacq Carbon Capture and Storage Project*, a two-part teaching case to be published by Ivey Publishing.

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Public Engagement in Carbon Capture and Storage in Europe

Latest estimates suggest that widespread deployment of carbon capture and storage (CCS) could account for up to one-fifth of the needed global carbon dioxide (CO_2) emissions reductions by 2050. A key potential barrier to CCS deployment is gaining and maintaining local public acceptance for projects.

Some companies planning CCS projects in the EU have learned the importance of public engagement the hard way. Opposition from local communities has severely delayed Shell's project in Barendrecht, the Netherlands, and has halted Vattenfall's Schwarze Pumpe storage project in Germany altogether. On the other hand, an effective public engagement strategy can keep a project on track, and facilitate regulatory approval.

This briefing will share insights about successful public engagement for CCS projects based on a case study of a CCS demonstration project in Southwestern France: Total E&P France's integrated Lacq pilot project.

Key Findings:

1. Flexibility: Engage the public early, ideally before regulatory approval
2. Transparency: Be bold in discussing concerns
3. Commitment: Communicate the problem and commit to a portfolio of solutions

Overview of Lacq Pilot

Total's Lacq facility includes a natural gas extraction and processing plant, and a natural gas fired power plant. The Lacq pilot converted one of the plant's five steam boilers to an oxyfuel combustion unit, and retrofitted the facility and a pre-existing pipeline to function as an integrated CCS system. Planning for the pilot began in 2005, the project was publicly announced in 2007, and the CCS pilot came online in January 2010. The pilot comprises a two year CO_2 injection period and a three year monitoring period. Total E&P France solely financed the pilot at a capital cost of €60 million.

Total has a long history in the region, dating back to 1938 when they first began extracting natural gas from the Rousse reservoir. This same reservoir, now depleted, serves as the geological storage site for captured CO_2 from Lacq. Total is a major employer in the region, and local communities are familiar with Total's industrial activities. The longstanding presence of the firm, and basic local understanding of the industrial processes of mining and mineral extraction (due to significant local exposure and familiarity) likely reduced potential opposition to this project from the outset.

Regardless of this amenable local context, studies showed that the public in surrounding communities did not have a good understanding of CCS, and were largely opposed to the prospect of storing CO_2 underground. A rigorous public engagement effort by Total helped to gain broad public acceptance, and enabled the project to move forward on schedule.

How Total Engaged

Total's community engagement approach was methodical, multi-pronged, and sustained. As a first step, Total established a stakeholder consultation charter that laid out their community engagement principles. In addition to creating a new section on their website as a point of access and information about the Lacq pilot, Total produced a detailed project information dossier that they distributed to local community members. Total organized open public meetings in surrounding communities, as well as meetings with different stakeholder groups and local government officials, beyond those required by regulations. Total agreed to a community suggestion to form a "Local Information and Surveillance Commission". Total devoted time and resources to participate in these community advisory panel meetings, and continued to do so even after regulatory approval for the project was attained.

1. Engage Early

A key element of Total's successful public engagement at Lacq was timing. Total made a point of engaging with local communities **before** commencing the regulatory approval process. At their own initiative and cost, Total held a series of public meetings in nearby communities, and conducted in-depth interviews with local stakeholders almost a year prior to seeking regulatory approval. The significant public opposition encountered in the Barendrecht project can partly be attributed to the tardiness of local stakeholder engagement, which occurred after the Dutch national government announced support for the project. Engaging the public early also provided Total with flexibility to adapt their efforts in light of the concerns of local communities.

2. Be Bold

Total's public engagement strategy for the Lacq pilot was more open and transparent than any other community initiative in the firm's history. The public meetings were designed in such a way as to invite comment from the public, civil society, academics and government officials. Engaging in this open way was a risk, but by exposing their project to this level of scrutiny Total demonstrated transparency. Transparency is vital when proposing the construction of a new and complex technological process like CCS, since the proponent is expecting the public to trust their word that the project will not endanger themselves or their families.

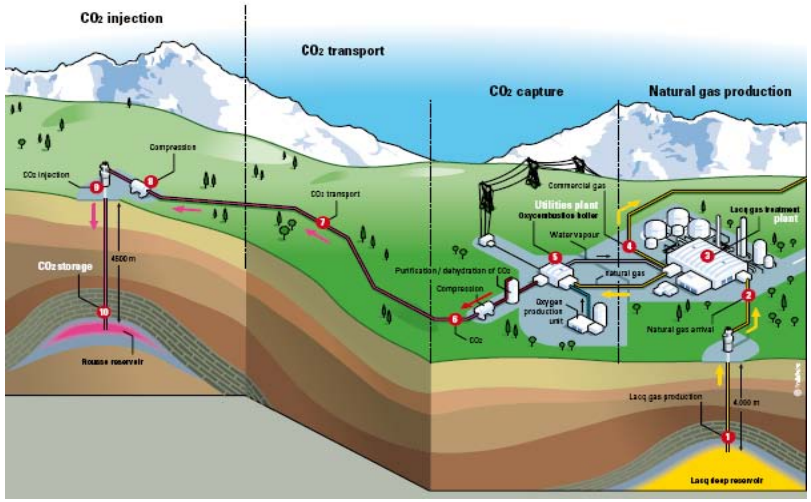
3. Show Commitment

Commitment to local communities, to CCS, and to solutions for the larger challenge of combating climate change were important in winning public approval for the Lacq pilot. Total demonstrated commitment to the technology by solely financing the project, avoiding the public resentment in the Barendrecht and Schwarze Pumpe projects because significant public funding had been allocated. A key message of Total's public engagement was that they did not view CCS as a "silver bullet," but instead that it was part of a portfolio of solutions required to address climate change. Total committed to a portfolio of solutions by constructing two local solar farms and facilitating an alternative energy seminar at the request of local communities, showing their commitment to fighting climate change at large.

Summary

Total was more open and transparent in this particular public engagement than they had ever attempted before, and it paid off. Their engagement efforts demonstrated commitment to the well-being of local communities, to fighting climate change, and to developing CCS technology. Furthermore, Total showed a great deal of flexibility in their outreach efforts, and engaged in ways that they had not planned in order to meet stakeholder needs. These three themes of their successful engagement, *flexibility*, *transparency* and *commitment* enhanced community trust in the firm, and built respect for Total's efforts.

Lacq Pilot Project



Source: Total.com

Useful Resources

McDaniels, D. and Bowen, F. (forthcoming), "Total's Carbon Capture and Storage Project at Lacq", Parts A, B and Teaching Note, Ivey Business Publishing.

Van Nooren, R. 2010. Buried Trouble, *Nature,* 463: 871-873.

US Department of Energy. 2009. *Best Practices for Public Outreach and Education for Carbon Storage Projects,* DOE/NETL-2009/1391. Available at: http://www.netl.doe.gov/technologies/carbon_seq/refshelf/BPM_PublicOutreach.pdf

Total Website, "Lacq Project Information Dossier", http://www.total.com/MEDIAS/MEDIAS_INFOS/1872/EN/CO2-Lacq-Total-Project-Information-dossier.pdf

CO_2 Capture and Storage: The Lacq pilot project, DVD, 4 mins 50 seconds. Shows an explanation of the CCS pilot project using video footage of the Lacq plant, and 3D animation of the planned project. Available in English.

Interview with Jean-Michel Gires on the Lacq CCS project, 5 mins. Covers: how does this technology work? How efficient is it? How secure? Could it be used in other industries than Total's? Available in French, with English subtitles. http://www.total.com/en/challenges/carbon-dioxide-capture-and-geological-storage/lacq-project-940768.html