

## HOW THE WORLD'S OIL GIANTS ARE SELLING THE 'CAPTURED CARBON' DREAM<sup>1</sup>

**Geoff Dembicki**©

The world's biggest producers of fossil fuels are carefully crafting strategies to convince the public that carbon capture and storage is a promising technology, even as that dream of a solution to global warming is battered by mounting expert opinion that it won't work. Carbon capture and storage -- CCS in industry parlance -- is the quest to prevent greenhouse gasses from escaping into the atmosphere while drilling for or processing oil, gas and coal. Billions are being spent to try and figure out a way to instead pump the gasses back into the ground. The future of Alberta's tar sands may be riding on the idea, if Canadian and international regulations clamp down on its role as a prime greenhouse gas emitter. So it's no surprise the provincial government is itself investing a lot of money in developing CCS technology -- and a lot of effort in promoting it to the public as a coming solution.

But while there are some experimental projects underway here and elsewhere, the prospect that CCS will become a workable and widespread practice any time soon took a big hit last month when a Houston University research team threatened "to blow a hole in growing political support for carbon capture and storage," according to a Guardian newspaper story. The report added to a growing chorus of experts who say pumping gasses back into the Earth is itself just too energy intensive, expensive and geologically dicey to bet on. That isn't stopping the full tilt, professionally designed public relations effort to make citizens around the world embrace CCS. The goal is to frame CCS as a way to let oil and gas extraction to continue apace without threatening the planet -- a message slammed not only by environmental groups but at least one oil industry analyst who say the CCS feel-good story is just a wasteful diversion.

Just how much time, money, and coordinated effort has gone into selling the carbon capture and storage dream was on full display last November in Paris, France, as nearly 100 international delegates attended a conference hosted by the Global CCS Institute -- four months after the Institute's G8 Summit launch. A full day of interactive discussion centered on how to communicate the "risks and benefits" of carbon capture technology to a skeptical public. Results were summarized in this 65-page report. For delegates, the stakes were high. Speakers noted several failed attempts to gain community support for local projects. "It is apparent that this issue could become a commercial show stopper for CCS," the report read. It painted a portrait of a public distrustful of their governments and big oil firms, slow to believe CSS was a real, or even necessary, solution. And the media weren't helping, because news reports tended to dwell on risks to the new technology.

### **Framing the CCS Story**

Conference participants discussed a number of ways to tweak the message for maximum success, based on several recurring themes from years of public opinion research. Excerpts from the conference report:

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<sup>1</sup> TheTyee.ca, May 17, 2010

*"...people wish to talk about CCS in comparison to other low-carbon technologies as part of an energy portfolio... Research has demonstrated that once individuals recognise the limitations of other technologies they may reluctantly accept CCS as the most appropriate solution."*

*"When the two words storage and sequestration were compared it was found that storage was a better word because it was more easily recalled. Individuals were able to accurately define the principle underlying the technology when storage was used and in general it created a more positive image of the technology."*

*"Within each community there are various audiences that need to be considered, particularly for targeting engagement processes and key messages."*

*"...uninformed opinions are unstable and change easily over time. To gain a most stable opinion it is important to provide individuals with the opportunity to engage with easily comprehensible information that is seen to be balanced and credible."*

*"...when multiple stakeholders join forces to communicate a message the message is more likely to be well received and trusted, particularly if those communicating the messages are generally known to have opposing views. For example, when NGOs team up with industry partners..."*

## **Targeting the Media**

Much of the conference simply pointed out the obvious. Carbon capture proponents were advised to seek public input wherever possible and constantly point out local benefits. Other strategies called for greater sophistication. There appeared to be consensus that project developers identify "influential stakeholders" early on. These are people, the report noted, "who can have a large influence on either the project or wider lay public and so need to have a high level of resources dedicated to them. This can include both time and money." Examples included "government regulators, media, NGOs, etc."

Lower down the priority list, but also important, was the "Education component." Proponents should focus "not only on schools at all levels but also wider institutions such as museums, science centres and so on," the report read. They were also urged to target "the broader public through a variety of engagement activities including local shopping centres, large group processes, access to experts and project representatives etc.," according to the report.

Conference participants agreed there should be more mention of carbon capture technology in the media. One delegate requested "a carefully scripted Q&A session which might reflect the type of interaction one would have with a journalist regarding issues of both CCS in general and of a particular (generic) project."

## **Alberta's \$2 Billion Wager**

Thousands of kilometres away, the Alberta government was busy at work on its own pressing problem: How to keep making billions of dollars from the second largest oil reserves on Earth, while assuaging those worried about an ever-warming world? Clawing and steaming tarry bitumen from wetland-rich boreal forest, then cooking the sticky goo into synthetic crude, creates up to three times as many carbon emissions as regular oil. In the United States, clean fuel laws and pending climate change legislation could restrict a vital market. Seventeen European Parliament members are actively campaigning against future oil sands imports. Add to that resistance strong campaigns from groups like Greenpeace, which may be discouraging new projects.

In December 2009, Alberta finalized plans for the world's biggest-ever investment in state-of-the-art technology generally referred to as carbon capture and storage. The basic premise is carbon emissions are trapped at their source, converted to liquid, shot down sealed pipelines and injected deep underground. A \$2 billion taxpayer subsidy -- with \$650 million more from the feds -- is helping fund four demonstration projects. They won't come online until 2015, and will only account for a small fraction of Alberta's CO<sub>2</sub> output. "The objective is to prove out the technology and ultimately to bring down the cost," said Jim Carter, chair of the development council which helped plan the initiative. Alberta has pledged big emissions cuts by 2050, with 70 per cent to come from carbon capture. Meanwhile, oil sands production could nearly triple by 2025, according to industry estimates.

### **Canada's Tar Sands Giants Lobby for CCS**

In Canada, industrial corporations representing 95 per cent of Alberta's oil sands production belong to a powerful lobby group called the Integrated CO<sub>2</sub> Network. Its goal is to accelerate "large scale CCS" across the country. (Though members Syncrude and Suncor didn't bother to compete for Alberta's \$2 billion funding.) Last year, founder Eric Beynon met personally with many government officials, including some of Prime Minister Stephen Harper's policy advisors. The group also employs top-tier lobbying firms such as the Earncliffe Strategy Group to plead its case. A similar U.S. alliance -- whose membership includes energy mega-player Halliburton -- has spent US\$90,000 lobbying Capitol Hill since 2009. That's not a lot of money by Washington standards, but still conspicuous from industrial sectors not generally known for environmental leadership. Europe has its own carbon capture interest groups, filled with familiar fossil fuel giants.

### **CCS Lobby Goes Global**

In July of last year the carbon capture and storage lobby -- backed by many of the world's biggest carbon emitters -- went international. At the G8 summit in L'Aquila, Italy, Australian Prime Minister Kevin Rudd and U.S. President Barack Obama launched a new group with a broad vision. The Global Carbon Capture and Storage Institute would hasten efforts to deploy CCS technology on a commercial scale, across the entire world. The idea came from coal-consuming Australia, which has the planet's highest per-capita carbon emissions -- followed closely by the United States. Institute membership reads like a cross section of the oil-dependant developed world. Members include giant investment banks (JP Morgan), oil sands lobby groups (Integrated CO<sub>2</sub> Network), luxury car makers (Rolls-Royce) and carbon-heavy fuel interests (Australian Coal Association). Canada and Alberta have signed on, in addition to 30 other national and sub-national governments. The Canberra-based Institute aspires "to be a key voice in the debate on climate change," according to its Overview Booklet. Australian taxpayers are paying AU\$100 million a year to keep that mandate alive.

### **CCS May Be Costly 'Diversion': Pembina**

Of course it isn't surprising news that any major player in the climate change debate -- from militant greens to Big Oil and Coal -- would give thought to public relations. What worries some observers is that huge investments in carbon capture and storage may placate a concerned public, while basic realities stay the same. "There is a risk that these very costly demonstration projects become something of a diversion," said Simon Dyer, oil sands program director for the Alberta-based Pembina Institute. "The real issue of course is we need to put a high enough price

on carbon and bring in regulations that drive emission reductions." Alberta emitters currently pay \$15 per tonne for carbon emissions that exceed reduction targets. Meanwhile, carbon capture technology costs anywhere from \$75 to \$150 a tonne, Dyer estimated.

Billions of taxpayer dollars help bring down costs. Dyer's group thinks big carbon emitters should pay a bigger share. "We support the polluter pays principle, not the polluter gets paid," Dyer said. Yet perhaps the biggest issue, particularly in Alberta, is whether carbon capture technology will actually produce carbon-neutral energy. "CCS is vital to the sustainability of Canada's oil sands development," reads a recent Integrated CO<sub>2</sub> Network report. Scientists advising federal and provincial ministers aren't so sure. "Only a small percentage of emitted CO<sub>2</sub> is 'capturable' since most emissions aren't pure enough," read confidential briefing notes made public in 2008. "Only limited near-term opportunities exist in the oilsands." Even staunch industry proponents have pointed out 80 per cent of fuel emissions come from end users -- vehicle commuters, for instance, who combust gasoline in their engines.

### **Latest Blow to CCS Hopes**

Then, a few weeks ago, Houston University researchers dropped their bombshell, garnering press attention world-wide. The scientific study concludes that when emitters inject CO<sub>2</sub> underground, pressure builds, restricting capacity for further injections. It could mean the greenhouse gas output from one power station alone would fill a reservoir the size of a small U.S. state. "The findings of this work clearly suggest [CCS] is not a practical means to provide any substantive reductions in CO<sub>2</sub> emissions," write the authors. The paper hardly puts an end to the debate over carbon capture and storage -- the Carbon Capture and Storage Association lobbying group was quick to call the study mistaken, as did the American Petroleum Institute, Lawrence Berkeley National Laboratory, the Pacific Northwest National laboratory, and others. But it makes winning over the public that much harder for a carbon capture and storage lobby that has hundreds of billions of dollars at stake in the concept that fossil fuel production -- and consumption -- need not be curtailed to save the planet.

### **'Bury the Problem'**

The Houston University report's co-author Michael Economides is not opposed to big business. In addition to a long academic background, he's editor-in-chief of the often pro-oil-and-gas *Energy Tribune*. But he has said that carbon capture and storage "is like putting a bicycle pump up against a wall. It would be hard to inject CO<sub>2</sub> into a closed system without eventually producing so much pressure that it fractured the rock and allowed the carbon to migrate to other zones and possibly escape to the surface." His paper concludes the vaunted techno-fix for global warming "is not a practical means to provide any substantive reduction in CO<sub>2</sub> emissions, although it has been repeatedly presented as such by others."

Economides labels himself an "agnostic" on the idea humans cause global warming. He thinks Western fossil fuel producers shouldn't waste valuable time and resources on a carbon capture scheme that won't work. Especially, as he told The Tyee, when "even Ray Charles can see" it's nothing but a public relations ploy. "CCS goes something like this," Economides said. "We can continue doing what we are doing and literally and figuratively bury the problem."