NGO Perspectives on CCS

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**CCS – NGOs’ View**

- **Environmental Defense Fund**: Supports the use of CCS as an important tool to temporarily help reduce emissions while we phase out fossil fuel usage. Believes that demonstration programs have already shown the potential of CCS, and that the technology is ready for immediate deployment.

- **World Resources Institute**: CCS is a critical option in the portfolio of solutions available to combat climate change, because it allows for significant reductions in CO2 emissions from fossil-based systems, enabling it to be used as a bridge to a clean and sustainable energy future.

- **IUCN**: Emerging technologies such as carbon capture and storage (CCS) are likely to play an important role in reducing greenhouse gas emissions from fossil fuels in the foreseeable future, and are being explored as part of the solution to minimize emissions generated by the energy sector. Yet the potential risks to biodiversity of these technologies must also be identified and managed.
**CCS – NGOs’ View**

- **WWF**: Whilst CCS may play an important role in reducing atmospheric carbon dioxide concentrations in the future, there are currently too many unanswered questions for it to be considered an immediate solution.

- **Sierra Club**: While carbon sequestration is a potentially important tool for meeting our energy needs without worsening global warming, the calculations for net reductions of CO$_2$ from CCS must account for the additional energy requirements – and increased emissions – necessary to power CCS systems.

- **Worldwatch Institute**: “It will be many years before we know for sure whether large-scale carbon sequestration is practical and affordable.” (Christopher Flavin)

- **Greenpeace**: “The CCS myth was always a dangerous distraction from real, clean, renewable energy solutions”. “CCS has been an abject failure.” The technology lacks serious potential due to a series of technical, economic, social and regulatory risks.
CCS – NRDC’s view

- We must rapidly find ways to reduce CO₂ emissions
- EE and RE must be the first resources used to meet our global energy needs
- To avert the worst effects of global warming, we must use all safe and economic tools at our disposal as early as possible
- Even as we accelerate the deployment of EE and RE supplies, coal will continue to be used for sometime to come
- An expanded use of natural gas must be accompanied by CCS to curtail its emissions footprint
- With effective regulation, CCS can be a useful tool to supplement EE and RE in cutting emissions
CCS – NRDC’s view

• Learning by doing: need commercial scale demonstration projects and to develop regulatory frameworks

• CCS can be safe and effective if sites are chosen, operated and regulated appropriately
  – Nature did CCS well before we thought of it
  – Industrial analogues
  – Several international projects with excellent results
  – Large scientific body of knowledge
  – Significant research efforts worldwide
  – Reliable commercial services available
But does it work? Not quite. While a handful of small scale projects demonstrate that parts of the CCS mechanism have gotten off the ground in recent years, the technology hasn't advanced much since Greenpeace first took a look at the technology back in 2008. In fact, the world has yet to see a fully integrated CCS project in the power sector come online.

What we have seen, however, is a series of high profile projects cancellations and the floundering of industry efforts to mainstream the technology. This is due, in part, to the very high cost of CCS.

In 2013, for example, Norway cancelled the Mongstad project after significant cost overruns and delays; the US government has pulled the plug (again) on its once promising FutureGen CCS facility, due to money troubles; and major European utilities have this year dropped out of the EU carbon capture platform citing cost concerns.

Even projects that have managed to achieve operation, and been heralded a success, have been later revealed to be plagued with problems. SaskPower's coal-fired Boundary Dam project in Canada is just one example.”
“What's the concern with CCS?

For CCS to deliver, the CO2 captured and buried would need to stay underground permanently. That's quite a gamble as CO2 leaking back into the atmosphere would only exacerbate climate change and could lead to other impacts.

Projects aimed at demonstrating the feasibility of permanently storing carbon dioxide underground have encountered difficulties in recent years, further underscoring the risks of CCS.

The In Salah project in Algeria, one of the few large scale CCS projects in the world, shut down indefinitely back in 2011 because the CO2 injection itself caused seismic activity that cracked the cap rock.

Developments at the Sleipner sub-seabed storage project in the Norwegian North Sea have also raised concerns in recent years; the discovery of fractures in the vicinity of the storage project creates the possibility that CO2 could eventually leak into the surrounding waters. A separate non-CO2 sub-seabed storage project operated by the same company that manages Sleipner, Statoil, has also had trouble keeping things underground in recent years.”
“What's the concern with CCS?"

Other concerns with CCS include:

- The costs needed to develop and demonstrate the technology
- The fact that companies want your tax dollars to pay for that development
- Liability risks around stored CO2; who pays to mitigate leaks and who is responsible for storage sites over the long-term (again, companies want governments to step in here)
- The fact that CCS does nothing to mitigate the range of other environmental and public health impacts associated with the mining, drilling, transport and combustion of fossil fuels (and in some cases, could exacerbate them)”
“What about CCS with oil and gas recovery?
But using CO2 to enhance the extraction of fossil fuels that are then burned likely has no climate benefit (also see this Grist analysis). What's more, the prospect of keeping CO2 underground in an oil or gas field punctured with multiple wells is limited.

And let's face it, the oil and gas industry has a lousy track record when it comes to cleaning up after itself. An investigation by the Associated Press following the BP oil spill disaster in the US, for example, found 27,000 abandoned wells in the Gulf of Mexico, many of which had not been permanently sealed.

If you think using CO2 in the oil and gas sector is good for the climate, think again.”

UK Friends of the Earth (UK)

• (2012)
• “If it can be proven on an industrial scale, CCS technology could play a role in cutting carbon from electricity generation and heavy industrial processes.
• “CCS shouldn’t be seen as an alternative to real clean British energy from the wind, sea and sun – it will need costly Government funding, raising people’s bills and keeping us hooked on expensive fossil fuels.
• “The Government still needs to set its sights on a renewable energy future, which will create jobs and lower fuel bills in the long run.”
“ZERO highlights the need for an effective, permanent and sufficient framework for CCS on all levels; nationally, within EU and globally.”

http://www.zeroco2.no/
Bellona

• “The Bellona Foundation is positive to CCS because we consider it impossible to combat global warming without it.
• Bellona is Vice-Chair and leads several work streams of the European Commission’s Technology Platform for CCS, the Zero Emissions Platform (ZEP).”
• “Environmental NGOs have different positions on CCS. Most of the largest environmental NGOs have a positive view or take a “necessary evil” approach. It can be confusing for the public when environmental NGOs hold different views on CCS, but Bellona is clear that rejecting any role for CCS will:
  • Preclude reaching the 2°C target this century and therefore may result in missing our only chance to deal with runaway climate change
  • Drastically increase costs of tackling climate change, leading to more spending on adaption and growing acceptance of a warmer world
  • Alienate potential allies for achieving deep decarbonisation from industrial sectors, and increase the political barriers to transformational change – CCS is critical should industry survive in a carbon constrained economy.”

“Keep the oil in the soil, and the coal in the hole” (COP-20)
Please Decide for Yourselves!