

What Experts Are Saying About Carbon Capture and Storage and Gasification

“A large scale project that includes carbon capture and sequestration, meanwhile, is still years away... But experts say more tests are needed before it can be proved that carbon dioxide can be permanently stored in the cavities created, and at an affordable cost. Indeed, carbon capture would likely make underground gasification more expensive.” Wall Street Journal, Sept. 15, 2008

“As yet it [carbon capture and storage] is commercially unproved...”Vattnefall’s chief executive says his group wants to have a leading position in CCS technology and he aims for the technology to be fully commercialized by 2020.” Financial Times.9/16/08

While carbon capture technology is being tested round the world, **more work needs to be done on the storage side.....[In] the past the focus was not on keeping the gas underground, and there are concerns that, over time, the carbon will leak out.”** Financial Times, 9/16/08

[In] eastern Germany] ...the [CCS] **pilot plant will run for at least three years** to determine whether Vattnefall’s chosen method of [CCS] is effective.” Financial Times, 9/16/08

More testing [of underground coal gasification] is necessary to investigate the possibilities of **underground water contamination and large cave-ins.”** Wall Street Journal, Sept. 15, 2008

-“The risks associated with carbon capture and storage are both local and global in nature. During transport and after storage, there is **potential for a sudden and large release of CO2 into the air caused either by slow leakage or an abrupt leak** from a failure at the site.” (2005 Intergovernmental Panel on Climate Change Special Report: Carbon Dioxide Capture and Storage)

- “Either scenario could pose a **health hazard if it collects in large quantities.** In addition toglobal warming, effects on human health range from immediate death resulting from asphyxiation to long term effects from prolonged exposure to high levels of CO2.
(Gerard, David. Environmental Bonds and the Problem of Long Term Carbon Sequestration.)

-“**Stored carbon dioxide can also contaminate groundwater,** kill subsoil plants and animals, and pressure build- up caused by CO2 injection could trigger **small seismic events.”** (IPCC Special Report)

-“**The retention capabilities of geologic formations are uncertain at best.”**
--Collected in “The Basics of Carbon Capture and Sequestration”,
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“Injection of compressed gas or liquid CO₂ will mobilize volatiles in the deep formation. Nothing is known about this, and harm done from sequestration will be permanent, pervasive, and severe if the wrong formations are selected. The potential to put light volatiles into water supplies is very high, if the geology selected is in any way associated with coal beds, oil fields, or natural gas fields. Extremely deep saline aquifers with very high geologic stability are the only places these experiments should be tried, and at that point a high level of oversight must occur to ensure effectiveness and safety.” Ned Ford, Sierra Club