GREENPEACE

CCS FAQ

When is CCS technology supposed to be ready by?

No one knows for sure. At this stage, CCS is unproven and has yet to be demonstrated on a single coal-fired power plant anywhere in the world.[i] The most optimistic estimates don't predict commercial readiness before 2020.[ii] However, a more realistic timeframe is 2030.[iii]

The "readiness" of CCS is predicated on more than just resolving technical issues. Its use will also require substantial investments in infrastructure such as pipelines, regulatory frameworks to clarify who is responsible for CO2 if it leaks as well as economic conditions that are favorable to its use. Considering this, it is possible that CCS may never be ready.

Are there no carbon renewable energy technologies that can better serve the people of Illinois?

Of course there are. There is no need for any state in the US to build new coal plants to meet future energy demand. Federal Energy Regulatory Commission chairman Jon Wellinghoff has confirmed this. In a media interview last month, he stated that there is enough renewable energy to meet demand and that coal is too expensive.[iv]

In Illinois, the state has about 9000 MW of untapped wind potential in the windiest parts of the state, which includes the Mattoon area.[v] The state also has excellent biomass potential, some resources for geothermal and sufficient sun for solar panels and hot water heating systems.[vi] All of these technologies can be used today to generate clean energy, jobs and economic benefits for the state of Illinois. And aside from that, there are many more ways for Illinois to energy and money with energy efficiency. Illinois doesn't need more coal to keep the lights on. Renewable energy and energy efficiency are more than up to the task.

How much is FutureGen projected to cost?

There is no way to know for sure since both CCS and the coal technology (IGCC)[vii] that the project wants to use are not market ready. But rest assured, it will be expensive. In general, CCS is estimated to double the costs for coal plant construction.

Before the Bush administration pulled the plug on the project in 2008, costs had[viii] risen by 85% to $1.8 billion[ix]. The "restructured" project has retained the $1.8 billion price tag. Additional cost increases cannot be ruled out, especially since the project hasn't even broken ground yet.

Who stands to benefit from CCS funding?

Certainly not the American taxpayer. CCS is America's latest "Bridge to Nowhere." It is incredibly expensive, no one knows if it will ever work and American's are the ones that ultimately foot the bill. While coal currently meets 50% of our nation's electricity, the road to travel in terms of our energy future is one in which we begin to reduce our dependence on it in favor of truly clean and sustainable energy resources. The best way to spend public funds on energy technology development and deployment is to spend it on renewable energy and energy efficiency. Doing so keeps the lights on, saves moneys, creates new jobs, and ensures that we can pass a clean environment on to our children.

Choosing to fund CCS merely gives another public handout to an industry that has benefited from years of subsidies and tax breaks. It is the same industry that has profited greatly in recent years from high energy prices while American consumers suffered. The companies asking for government support of CCS have more than enough of their own money to develop and demonstrate the technology. If they want to continue burning coal, they should be the ones paying to show that it can work. In the meantime, the US government should focus its efforts on building a clean energy economy and becoming a world leader in the technologies that will power it.

How much money is allocated to FutureGen and other CCS projects in the climate legislation now moving though the House?
In its current form, the American Clean Energy and Security Act (HR 2454) creates a $10 billion over 10 year fund that electricity consumers will have to pay into to support CCS development. In addition, the legislation has provisions to give emission allowances for coal plants using CCS. In the end, CCS and coal could receive anywhere from $75-100 billion of support.

How does the bill affect the future of coal?
This bill won't stop the construction of new coal plants in the critical timeframe in which emissions must peak and begin declining. Instead, the legislation allows business as usual to continue while doing little to effectively promote sustainable alternatives such as wind and solar power. For example, the renewable energy standard in the bill will result in a lower level of renewable electricity by 2020 than states would already achieve if such a policy weren't in place.

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[i] NOTE: Carbon capture technologies have been demonstrated on some coal plants and storage of CO2 is happening in some places. But there are no coal plants anywhere in the world that are having their CO2 emissions captured, transported and buried. There is a 30 MW plant in Germany operated by Vattenfall that is supposed to be the first. But at the moment, they are selling their CO2 for carbonated beverages.

[ii] See, http://www.vattenfall.com/www/vf_com/vf_com/Gemeinsame_Inhalte/DOCUMENT/360168vatt/5966205xpr/1344475pre/1344479ccs/P02.pdf

[iii] See, http://www.guardian.co.uk/business/2009/feb/26/centrica-british-gas-green-jobs and http://www.wbcsd.org/web/publications/facts&trends-ccs.pdf>

[iv] Greenwire, "No need to build new U.S. coal or nuclear plants-FERC chairman", http://www.eenews.net/Greenwire/2009/04/22/1/. 22 April 2009.

[v] Other locales include Southeast of Quincy, Bloomington are, north of Peoria, and between Sterling and Aurora. For more information see, http://www.windpoweringamerica.gov/where_is_wind_illinois.asp.

[vi] http://apps1.eere.energy.gov/states/alternatives/resources_il.cfm

[vii] IGCC stands for integrated gasification and combined cycle. Gasification technology such as IGCC is not unproven in and of itself but it is not yet commercially available for coal. There are only 5 IGCC coal plants in the world- 2 of them are in the US (Ohio and Florida). IGCC plants are very expensive to build and still it still has some technological hurdles to overcome before it can be widely deployed. Some estimates assume that this will happen by about 2020.

[viii] US Department of Energy, "Statement from US Department of Energy Acting Principal Deputy Assistant Secretary for Fossil Energy James Slutz", http://www.energy.gov/news/5779.htm, retrieved 23.1.08

[ix] USA Today, "Emissions-free coal plant's costs worries feds", http://www.usatoday.com/money/industries/energy/2008-01-06-futuregen_N.htm retrieved 23.1.08.