

TranSust.Scan

CCS – 20/20/20 - Competitiveness

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Key Messages

- CCS is a very valuable option for reducing emissions
- CCS remains valuable, even with some leakage from reservoirs
 - CCS should allow installations **partly** exemptions from holding emission permits
- CCS does not replace Renewables
- Policy needs to reduce uncertainty on future carbon prices to stimulate CCS investment
 - EU should secure **floor price** in EU-ETS, not auctioning part of its permits below this level

CCS, a valuable option

- Coal is a major source for electricity power plants: cheap & secure
- Without CCS, we will have to leave coal and switch to gas and renewables on a massive scale
- The same applies to other countries (China, India, Australia)
- CCS will allow us to use coal for a longer time, smoothen the transition, and reduce abatement costs substantially (20-40%)
- CCS will allow EU to share technology, making abatement cheaper for other countries

CCS Policy

- Objective: set policy environment that stimulates market to find efficient CCS development
- Energy firms need reduced uncertainty on future climate policy environment.
 - What will be the future carbon price?
 - What will be the CCS permit exemption?
 - What will be the electricity price for renewable sources (wind)
 - Will there be grid connection for remote renewable sources?
- EU needs to secure an increasing floor price (not ceiling) for permits, by not selling permits below level of 30 euro/tCO₂, increasing over time.
- Additional reason to increase share of auctioning
- Economic efficiency of CCS = exemption that CCS installations should receive from holding emission permits = 50%-99%, dependent on leakage rates of 0.5%/yr – 0.01%/yr.
- Set an exemption rate for 2010-2020, of say, 70% (not 100%).

CCS and Renewables

- CCS will not crowd out Renewables
- CCS is not free, continues to carry a carbon price (exemption NOT 100%)
- Renewables suffer from grid-connection, intermittent nature, feed-in tariff, etc. These should be solved, independently of CCS.

Further Thoughts on Climate Policy & Oil

- EU climate change policy affects technology => structurally changes fossil fuel demand => structurally changes fossil fuel prices
- The strategic leverage of substantial EU climate policy (in terms of oil prices) is large
- To calculate the costs of climate policy, this strategic interaction between climate-based technology/demand policy and prices must be understood.

Further thoughts on EU-ETS and Consumers

- Currently, EU-ETS is for big firms; consumers don't know it exists
- There is a huge consumer carbon offset market (flights, etc.), but lack of consumer trust is major problem (is it really offsetting?)
- If the total amount of permits is fixed, and every firm/individual can buy permits to retire, then ...
 1. Carbon offset becomes reliable
 2. EU retail will sell permits at the counter as they sell mobile top-ups now
 3. Carbon reduction becomes part of life