Geophysical Research Abstracts
Vol. 13, EGU2011-13948, 2011
EGU General Assembly 2011

Climate Targets, Costs of Mitigation and the Role of CCS in the Concert of Mitigation Options

Hermann Held
Research Unit Sustainability & Global Change, University of Hamburg

While the EU had been propagating the 2° target for the last decade, now also the UN in the vein of COP 2010 has embraced that target. We review recent model intercomparison studies on the techno-economically induced mitigation costs of that target and related targets. Hereby a large folder of already existing mitigation technologies is considered, including CCS (Carbon Capture & Storage). In essence, costs appear as relatively low in case the subsequent investments are triggered swiftly.

CCS can be interpreted as a 'borderline' technology, as on the one hand all elements of the CCS technology chain are proven, on the other hand no long-term experience does exist on the geological storage of carbon dioxide in the context of a cap-and-trade system. For that reason, we give special attention to this technology in the following. Depending on the strictness of interpretation of the 2°-target, the 'ideally functioning CCS' is found to imply moderate cost savings, heavy cost savings, or even indispensible, when restricting the assumed future folder of mitigation technologies to the present-day folder.

Finally, the issue of potential carbon dioxide leakage from geological formations is discussed from a macroeconomic as well as entrepreneur's point of view. Particular fiscal instruments are introduced that could incentivize best-practice behaviour of the companies responsible for geological sequestration.