A REPORT ON THE CCUS CONFERENCE

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Overview

The 14th annual Carbon Capture, Utilization and Sequestration Conference was held in Pittsburgh in the United States 28 April 2015 – 1 May 2015. The Conference is the leading forum for the discussion of new technologies, especially those involving carbon capture and sequestration (CCS), and the pertinent regulations. A detailed examination of some of what was discussed, and analysis of the results, is presented.

Methods

Several sessions are examined in detail, and backup references are provided in a number of cases where they would otherwise be impossible to find. Follow-up interviews and basic economic analyses cover some of the more important findings, including CO_2 pricing, deep eutectic solutions, and presentations by the National Energy Technology Laboratory (NETL).

Results

Post-combustion amine use show continuing improvement and are examined. But the potential for real breakthroughs seems highest with ionic liquids. Ionic liquids can be seen as capital, which can help explain NETL's arguments about their cost. A thorough analysis of ionic liquids is presented, and information from both the BIT Euro-Asia Economic Forum in Xi'An, China and the October 2015 United States Association for Energy Economics (USAEE) meetings helps cast light on the results obtained.

An attempt is also made to explain how water could affect demand for CO_2. This would be relevant for both enhanced oil recovery and cost recovery for overruns. It is suggested that a market for water could provide a partial hedge for investors.

One of the key features distinguishing CCS projects that are ongoing from ones that have been cancelled is not technology, or even cost, though both are vitally important, but the issue of whether the project can obtain insurance.

Conclusions

CCS is often argued to be an unnecessary and overly risky technology. Certain projects, including but not limited to use of ionic liquids, based on the discussion at the Conference, seem worth attempting to increase the likelihood of usage of CCS and its success.