CSLF releases CCS technology roadmap

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A report released by the Carbon Sequestration Leadership Forum (CSLF) indicates significant international progress has been made in the past year on advancing carbon capture and storage (CCS), but that a number of important challenges must be addressed if widespread commercial deployment is to be achieved.

"While significant carbon capture and storage project activity and technological progress is underway globally, continued advancements are needed to gain public acceptance as well as contribute to the creation of a sound regulatory framework for geological CO2 storage," according to the CSLF's 2010 Technology Roadmap. The report notes the "sheer scale of creating major CO2 pipeline transmission systems, some of which may pass through populated areas, will raise financial, legal, institutional, and regulatory issues as well as public concerns."

This latest CSLF report says there are now 32 active or completed CSLF-recognized projects demonstrating worldwide collaboration on CCS and contributing to the CCS knowledge base. It also indicates that significant national investments are occurring globally to advance deployment of CCS technologies.

The Roadmap notes that the "understanding of regional capacity and potential for geological storage has improved with the completion or undertaking of several national and regional storage atlases," and that there is a shift in emphasis toward specific storage issues, such as capacity estimation, well design and integrity. Also, major progress has been made toward a consistent methodology for capacity estimation in deep saline reservoir storage systems, "but this area still remains a key priority."

In the final analysis, continued research, development and deployment "to reduce capture costs and validate safe, long-term storage of CO2 at all levels, from theoretical and laboratory work through pilots and large integrated projects, is vital. In all aspects, effective knowledge sharing and lessons learned will be key elements that will contribute to the accelerated deployment of CCS."

The CSLF is a 25-member ministerial-level international climate change initiative focused on developing and deploying cost-effective CCS technologies worldwide. The purpose of the Roadmap is to "provide a pathway toward the commercial development of integrated CO2 capture, transport, and storage technologies."