

## **EPRI Study Evaluates Utility Business Case for CCS**

An EPRI-sponsored study is evaluating the potential roles for U.S. electric utilities in the development and operation of the expected future infrastructure for carbon capture and storage (CCS).

The first elements of this multi-year project are being conducted for EPRI's Program 165, "CO<sub>2</sub> Capture and Storage," by Stanford University's Program on Energy and Sustainable Development (PESD). The aim of the project is to identify the possible opportunities and risks for electric utilities in a variety of different business scenarios involving a CCS infrastructure.

In essence, the project posits a future scenario where the CCS infrastructure is mature—where CO<sub>2</sub> is being captured from plant flue gas, injected into wells, and continuously monitored. Between that future scenario and the present is a gap. A gap analysis might be employed to assist utilities in understanding the different possible options available to them for building out and owning different elements of that infrastructure, including CO<sub>2</sub> capture, pipeline transport, and injection/storage. In other words, in which cases, would it make sense for utilities to take on all the benefits and liabilities of implementing and owning one or more of these elements of the infrastructure?

The PESD analysis will consider different business models, including a utility model, a merchant model, and a state-owned model. In each case, the analysis will explore where the value is in the chain from capture to storage. How will real companies manage exposure to risks and seize rewards across the CCS value chain? What policy incentives are needed to kick-start a commercial-scale CSS industry?

Stanford's PESD is developing a number of in-depth case studies of a sample of the first semi-commercial CCS projects. The team is also analyzing the paths taken by several already mature industry "analogs"—including nuclear power, liquefied natural gas (LNG), and sulfur dioxide (SO<sub>2</sub>) controls. In each case, the team is looking at possible lessons learned from these examples. Who created the niche? What were the relative roles of regulation and private enterprise? What was the transition from niche services to commercialization? How did advocates organize for effective political action? What was the structure of path-breaking" deals?

The first results of the project will be published in early 2009 in a report available to P165 funders.

**For more information, contact Brice Freeman, 650-855-1050, [bfreeman@epri.com](mailto:bfreeman@epri.com).**

