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Energy Insurance Policies

Planning for CEP's energy supplements begins up to a year in advance. By mid-July, the four articles in this year's supplement (pp. 33–56) on carbon capture and storage (CCS) had been written and edited, the layouts had been prepared, and the authors were reviewing the pages one last time before the issue moved into design and production.

Then on July 14, American Electric Power (AEP) announced that it is shelving plans to advance CO₂ capture and storage technology to commercial scale “until economic and policy considerations create a viable path forward,” said AEP chairman and CEO Michael G. Morris. The project would have involved the installation of a commercial-scale CCS system at an AEP plant in West Virginia that would capture at least 90% of the CO₂ from 235 MW of the plant's 1,300 MW of capacity — approximately 1.5 million m.t. of CO₂ per year — treat and compress the captured CO₂, then inject it into underground geologic formations.

“We are clearly in a classic ‘which comes first?’ situation. The commercialization of this technology is vital if owners of coal-fueled generation are to comply with potential future climate regulations without prematurely retiring efficient, cost-effective generating capacity. But as a regulated utility, it is impossible to gain regulatory approval to recover our share of the costs for validating and deploying technology without federal requirements to reduce greenhouse gas emissions already in place. The uncertainty also makes it difficult to attract partners to help fund the industry's share,” Morris explained.

So how do we resolve the chicken-and-egg dilemma and move forward in addressing these complex national and global challenges?

It's important that we not let opportunities to meet future needs slip through our fingers. Last year, Energy Secretary Steven Chu said that the success of China and other countries in clean energy industries represents a new “Sputnik Moment” that “requires a similar mobilization of America's innovation machine so that we can compete in the global race for the jobs of the future.”

CCS demonstrations are part of that innovation machine. By delaying the demonstration of CCS, we could very well be surrendering an important option for our future to other nations. Yes, achieving an abundant and secure energy supply, a clean environment, a vibrant economy, and well-paying domestic jobs is an enormous undertaking. There are risks and trade-offs, and it will be expensive. But the same was true of the space program when the Soviet Union launched Sputnik 1 in 1957.

Conducting CO₂ capture research, development, and demonstration projects does not mean we must forever burn coal and capture and sequester the CO₂. However, it does give us an understanding of a range of technologies that will be available for deployment should we need them in the future. If we don't ready the processes for commercialization, someone else will — and we will be buying the technology from them.

Each project is an insurance policy, with a premium that is rather trivial in the grand scheme of things. Are we prepared to find a way to invest in U.S.-based energy technologies? Can we afford to wait for an answer to the chicken-and-egg conundrum?

Cynthia F. Mascone, Editor-in-Chief