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Carbon Capture and Sequestration

Jeffrey A. Thaler, Esq. | December 18, 2007

The proposed construction of a 700MW coal-and-biomass-fuel power plant on the site of a former nuclear power plant in Maine has sparked a great deal of analysis into current issues and technologies associated with carbon sequestration, including but not limited to coal power plants.

The Twin River Energy Center in Maine proposed an innovative technology to convert coal and wood biomass to a nearly sulfur-and particulate-free gas that would be burned to drive steam turbines, as well as to create a small amount of diesel fuel. While the Twin River project would have the technology to capture carbon, however, no ready sequestration site nearby presently exists.

As in many parts of the country, the Twin River project proposal kindled debate about the use of America's substantial coal resources in a time of climate change and greenhouse gas concerns.[1] Consequently, a large conference was recently held by the Chewonki Foundation with participation of experts from around the country, as well as Twin River representatives, to discuss the technologies and opportunities associated with carbon capture and storage.

During the Chewonki conference[2], the U.S. Department of Energy presented on the priorities and challenges of carbon capture and storage. Several speakers focused on technological issues of producing low-greenhouse gas liquid fuels, as well as the monitoring and site characterization for carbon storage. A Twin River consultant presented a mine-to-wheels analysis of projected carbon dioxide emissions from the proposed plant. Finally, findings were presented from the MIT *Future of Coal* Study.

The general consensus from conference presentations was that (1) carbon capture and sequestration will need to play an important role in reducing carbon dioxide emissions, not only in the United States, but especially in China, India, and other parts of the world; (2) at the present time, there is insufficient geological information – both on land and below the ocean floor – about the potential for carbon dioxide storage in Maine or in the Northeast generally; and (3) it is imperative that government, industry, and environmental groups work together in exploring the viability of carbon sequestration.

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[1] For more information on carbon issues, the 2005 report by the Nobel Laureate Intergovernmental Panel on Climate Change about carbon capture and storage can be accessed by clicking here.

[2] Click here to access the carbon capture and storage presentations.

Maine is a member of the Regional Greenhouse Gas Initiative (RGGI), the nation's first carbon-and-trade program, which involves all Northeast states from Maine to Maryland, with the exception of Pennsylvania. Commencing January 1, 2009, it will require a reduction of pollution from the region's largest power plants by 10 percent by 2019. While the region is not heavily dependent upon coal-fired generation, it is heavily dependent upon fossil-fuel generation. It is also downwind of substantial coal-generated power to the west and south.

After the presentation, local voters in Wiscasset rejected a change in the zoning ordinance concerning height of structures. The project developer is still intending to pursue the project following some refinements.

Jeffrey A. Thaler is a shareholder at the law firm of Bernstein Shur. Jeff is lead environmental permitting attorney for the Twin River project, and his firm generally represents Twin River. Click here to view additional information on the author, including contact information.