

Entergy

Financial Risks of Continued Reliance on Coal

Whereas:

Electric utility companies that rely on coal face numerous challenges and uncertainty regarding environmental compliance costs, coal price-volatility, and the cost of carbon capture and storage for coal plants. This unprecedented combination of forces has led utility companies such as Progress, Duke and Xcel to announce coal plant retirements.

Coal combustion for electricity is a major contributor to air pollution, accounting for one third of the nitrous oxides (NO_x), 50% of the mercury, a hazardous air pollutant, and over 36% of the carbon dioxide (CO₂) emitted in the U.S. Older coal plants emit substantially more of these pollutants per Megawatt hour (MWh) than newer plants.

Coal accounted for 27.7% of the electricity generated by Entergy in 2009 (excluding nuclear) and 15.2% of the non-nuclear electricity that Entergy generated and purchased. However, coal combustion is responsible for 53.9% of Entergy's NO_x emissions, 50.6% of its CO₂ emissions, and 100% of its mercury emissions. Mandated environmental controls at Entergy's 50 year old White Bluff, AR, plant will cost \$475 million. Other Entergy coal facilities built in the 1980s also lack controls required to meet more stringent mandates.

The U.S. Environmental Protection Agency (EPA) is moving, in some cases pursuant to court order, to tighten regulation of the air, water and waste impacts of coal plants. Industry analysts (Bernstein Research, Jeffries & Company, Standard & Poor's, Wood Mackenzie) have concluded that the cost of additional environmental control equipment for NO_x, particulates and mercury may make it uneconomic to retrofit small, older coal plants. Pending EPA regulations governing storage and disposal of coal combustion wastes will likely increase operating costs for coal plants.

EPA is also developing regulations for CO₂ and other greenhouse gas emissions. However, the lack of national climate policy to reduce CO₂ emissions further adds to economic uncertainty for coal plants. Commercial deployment of carbon capture and storage technology for coal plants, is 10 to 15 years away and "would increase electricity costs by about 30 to 80 percent," the U.S. Government Accountability Office reports.

Declining reserves of high quality central Appalachian coal, unprecedented price increases and coal price-volatility, versus abundant supplies and record low-prices for cleaner burning natural gas, and declining costs for wind and solar energy, make continued reliance on coal increasingly problematic.

Resolved:

Shareowners request that Entergy's Board of Directors, at reasonable cost and omitting proprietary information, issue a report by November 2011 on the financial risks of continued reliance on coal contrasted with increased investments in efficiency and cleaner energy, including assessment of the cumulative costs of environmental compliance for coal plants compared to alternative generating sources.