

Hampton Roads Coal-fired Power Plant: A Bad Deal for ODEC Ratepayers

A time of uncertainty

Investing in a massive coal-fired power plant at this time would expose Old Dominion Electric Cooperative ratepayers to great financial risk. In addition to the uncertainty of these economic times, there are great uncertainties related to the high costs of operating and constructing a coal-fired power plant.

Construction

- ODEC's proposed coal-fired power plant in Surry County would cost at least \$6 billion in construction costs.
- More than 80 coal power plants have been cancelled, delayed, or rejected in recent years due in significant part to uncertainty over construction costs and future carbon controls.
- Due to worldwide competition for power plant design, materials labor, equipment and commodities, coal plants estimated to cost \$1,500 per kilowatt in 2002 are now more than \$3,500 per kilowatt.
 - Construction costs for the proposed supercritical pulverized coal plant in Meigs County, OH – similar to the Hampton Roads project - rose from \$1.25 billion in 2005 to more than \$3 billion last year.

Carbon control

- The 1,500 megawatt Hampton Roads plant would emit about 14.6 million tons of CO₂ a year – a potential total of 876 million tons over the plant's 60-year lifespan.
- No commercially viable technology exists to capture CO₂ emissions from a pulverized coal plant like the one proposed for Surry County. Experts agree that, if such commercially viable technology is developed, it won't be ready until at least 2020.
 - If capturing carbon were included in the cost, generating power at the Hampton Roads plant would be 12 to 14 cents per kilowatt hour. This would not include substantial additional costs for transporting and permanently sequestering the CO₂.
- Current proposals from Congress and the Obama Administration to address climate change would reduce CO₂ by 14% below 2005 levels by 2020, and by 83% by 2050. Also, the Environmental Protection Agency has taken a major step toward carbon regulation with a preliminary finding this April that CO₂ (and other greenhouse gases) endanger public health and the environment.
 - Whether by regulation or legislation, mandatory carbon controls are widely expected to be passed soon, and will add substantially to the cost of operating a coal-fired power plant.

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- According to Standard & Poor's: "Customers of those utilities with higher levels of carbon intensity will be more exposed to rate increases than customers of utilities with lower carbon intensity."
- Depending on the price of carbon credits under a federal cap-and-trade program, ODEC member cooperatives and their ratepayers could have an additional annual cost of between:
- \$223 million and \$670 million by 2016
 - \$587 million and \$1.76 billion by 2030

Meeting the need

- Based on multiple factors including the current economic recession and Virginia legislative policy to reduce energy consumption, the need for an additional 1,500 MW of power is highly uncertain.
- The 2007 Virginia Energy Plan found 8,868 gigawatt-hours of potential, cost-effective energy efficiency savings that could be achieved in five years, and a total of 19,355 gigawatt-hours saved in ten years.
- The plan also found that if Virginia invested in efficiency and conservation to achieve those savings, it would defer the need for 5,495 MW of new capacity within ten years.
 - The plan also found a potential of renewable energy sources in Virginia of 28,000 MW of offshore wind power, 1,950 MW of onshore wind power, and 750 MW from biomass.
- Factoring in the almost-certain federal CO₂ controls, a mixture of efficiency, offshore wind, biomass, and combined-cycle natural gas generation that provides roughly the same power as the proposed Hampton Roads coal-fired power plant would emit *five times less CO₂*, and cost anywhere *between 1.7 cents and 4.5 cents per kWh less* than the plant.

Information drawn from:

Synapse Energy Economics Inc.

"The Financial Risks to Old Dominion Electric Cooperative Consumer-Members of Building and Operation the Proposed Cypress Creek Power Station"

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