

The Rising Cost of New Power Generation Projects Argues for Greater Reliance on Competitive Markets and Procurement

The cost of building new power plants and other electricity infrastructure is under the same rising cost pressures that all construction-intensive industries are facing. Much as rising energy prices are making groceries and airline tickets more expensive, the rising prices of steel, concrete and other commodities greatly impact power construction projects. At the same time, power suppliers are planning for and starting to embark on a large generation build-out to meet growing U.S. demand. As detailed below, costs for infrastructure materials are rising globally for all types of construction projects, and are not expected to abate soon. This creates serious challenges for policymakers and electricity suppliers.

The price for all classes of commodities important to electricity infrastructure has been increasing rapidly. According to the Brattle Group, over the past ten years the cost of steel products has increased 70 percent, copper 300 percent, aluminum 70 percent, cement 40 percent and electric wire nearly 60 percent.¹ The U.S. Energy Information Administration estimates that between two-thirds to three-quarters of construction costs are directly related to materials and equipment.² Not surprisingly, the Cambridge Energy Research Associates construction cost index for a range of new power plants has increased by 130 percent between 2000 and 2007.³ This rapid cost increase is impacting all types of power plants and has continued to accelerate into 2008.

Rising global demand is at the heart of the challenge. As China, India, and a host of other developing nations continue to grow, they demand more of all these products to build their infrastructure. The role that developing countries play in rising construction costs in the United States cannot be understated. In 2005, China consumed 40 percent of the world cement supply and 25 percent of the world steel supply.⁴ These consumption patterns are not likely to dissipate soon.

The weakening U.S. dollar has further made these commodities more expensive. The U.S. Dollar Index, which tracks the U.S. dollar against six currencies,⁵ is currently at its lowest level since the index was started in 1973; in the past twelve months alone the U.S. dollar has weakened about 15 percent against the Euro.⁶

¹ Peter Fox-Penner, Marc Chupka, Robert Earle, "Transforming America's Power Industry: The Investment Challenge, Preliminary Findings," The Brattle Group, April 21, 2008.

² "Impacts of Rising Construction and Equipment Costs on Energy Industries," *Annual Energy Outlook 2007*, Energy Information Administration.

³ IHS Inc. and Cambridge Energy Research Associates, "Power Capital Costs Index," February 14, 2008.

⁴ Standard & Poor's, "Increasing Construction Costs Could Hamper U.S. Utilities' Plans to Build New Power Generation," May 2007, Pg. 1-2.

⁵ The US Dollar Index (USDIX) tracks the value of the U.S. dollar through a weighted geometric mean with the Euro, the Japanese Yen, the British Pound Sterling, the Canadian Dollar, the Swedish Krona and the Swiss Franc.

⁶ Jeremy Gaunt, "No rescue expected for weak dollar," *Reuters*, March 2, 2008.



On top of input costs, environmental compliance is also increasing the cost of operation and construction, notably for coal-fired plants. Meeting existing clean air regulations is expected to cost an additional \$2.7 billion a year in 2010 and \$4.4 billion in 2015.⁷ This is *before* taking into account federal carbon regulation expected to be enacted in the next few years.

While cost increases impact both competitive suppliers and cost-plus, rate-regulated utilities, competitive suppliers are better able to manage these costs on behalf of consumers. Suppliers subject to market discipline only succeed if they generate electricity in the most efficient manner possible for consumers. By contrast, absent competitive procurement where all suppliers are considered, cost-plus, rate-regulated utilities make more money the more they spend.

Bernstein Research recently found that rising commodity costs along with increases in the costs for fuels used to generate electricity will be felt most acutely by rate-regulated, vertically-integrated utilities.⁸ The millions of consumers who are captive to these utilities would benefit from competitive procurement in which non-utility power suppliers can compete to offer other supply options. States and regions that already restructured to rely more on competitive wholesale markets should continue to rely on market forces to help contain costs and manage risks for their consumers. As noted in a recent report:

Consumers have benefited from changes in the industry that have imposed greater risks on investors than was the case under traditional cost-based rate regulation. The vast majority of investment in generating units over the decade since 1995 has been made by non-utility entities, with investors bearing risks of cost overruns and surplus capacity. Competitive market structures typically provide no assurances about future prices for power generated, so owners of such generating facilities are at risk to recover a return of and on their investment through competitive markets. This contrasts sharply with investment patterns in the prior decades, when most of the capacity additions were made by regulated electric utilities.⁹

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The Electric Power Supply Association (EPSA) is the national trade association representing competitive power suppliers, including generators and marketers. These suppliers, who account for nearly 40 percent of the installed generating capacity in the United States, provide reliable and competitively priced electricity from environmentally responsible facilities. EPSA seeks to bring the benefits of competition to all power customers.

For more information go to www.epsa.org.

⁷ Susan Tierney, "Decoding Developments in Today's Electric Industry – Ten Points in the Prism," The Analysis Group, October 2007, p. 6.

⁸ Hugh Wynne, "U.S. Utilities: The Long View, Part 2," Bernstein Research, May 14, 2008.

⁹ Susan Tierney, "Decoding Developments in Today's Electric Industry – Ten Points in the Prism," The Analysis Group, October 2007, p. 15.