

**FERC: Gas 'Crucial' to Meet Growing Generation Needs**

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Higher fuel prices, increased capital costs and uncertainty about climate policy are putting upward pressure on electric power prices at a time when substantial new investment in generation is needed, and natural gas will be the bridge fuel to new power generation resources for the near term, according to Charles Whitmore of the Federal Energy Regulatory Commission's (FERC) Office of Enforcement.

"Over the long run, the nation can meet its increasing need for generation in several ways," Whitmore told commissioners during an energy market update in Washington, D.C., on Thursday. "But for the next few years, the options are more limited, and natural gas will be crucial. The lead times for both nuclear and coal units mean that they will not supply a significant amount of new capacity for nearly a decade.

"Most people expect renewables to supply an increasing proportion of the nation's power. For the next few years, wind will almost certainly account for a large share of generation investment and a growing share of overall generation. Wind power has no fuel costs, and so will generally operate when available. However, wind is a variable, weather-dependent resource."

Geothermal and solar power are likely to remain relatively small in the national picture over the next few years, Whitmore said. "Overall, the most likely outcome is that natural gas will continue to be the leading fuel for new capacity over the next half decade," he said.

"While both natural gas and coal prices have increased rapidly, natural gas is increasingly important in every region of the country – even in regions where coal has historically dominated. Most noticeably in the Southeastern Electric Reliability Council, natural gas usage has grown substantially since 2000, up 63.6 TWh in 2007, more than in any other region. Noticeable increases also occurred in the Florida Reliability Coordinating Council, which has flexibility to burn either gas or oil at many facilities, and also in the Rockies and Southwest, where demand continues to grow considerably."

In what Chairman Joseph T. Kelliher described as a "sobering assessment," Whitmore said the recent escalation of costs to produce electricity could be the start of a years-long trend. "There is little reason to believe that this summer is unusual," Whitmore said. "Rather, it may be the beginning of significantly higher power prices that will last for years."

"The primary reason for the electric power price increases this year is high fuel prices," Whitmore said. "All current market indications suggest that they will remain high. Markets anticipate continuing high prices, even though they know that the United States has seen a significant increase in domestic natural gas production over the last year and a half. The anticipation of further high prices makes more sense when one considers the likely increase in gas demand for generation and the global nature of competition for LNG [liquefied natural gas]."

Natural gas is not the only important fuel in setting electric power prices. Coal still powers half of all power produced in the U.S. In some markets – the Midwest and the Southeast, for example – coal is often on the margin and plays a major role in setting average prices over time.

The report pegs current futures prices for natural gas at \$2.50 to \$5 above the average 2007 spot price for natural gas, and costs for everything from iron and steel to cement and copper wire rising significantly over the past several years, contributing to increases in the cost of new generation for every type of power plant, from nuclear power to combustion turbine and wind generators.

The IHS CERA Power Capital Costs Index, recently released by IHS and Cambridge Energy Research Associates Inc. (CERA), indicated that costs to construct new oil and natural gas upstream facilities have jumped 6% in the past six months and have doubled since 2005. The CERA report found that the price squeeze is driven by the rising costs for raw materials and transportation. Raw materials, such as iron ore, that are needed to produce steel have increased by as much as 60% this year as ore contracts have been renegotiated. And rising fuel prices continue to drive the shipping costs upward. The effects of this are seen in the finished steel, which have consequences for equipment prices.

While demand response and energy efficiency may help to stunt demand over the next few years, they are unlikely to eliminate the need for new capacity, Whitmore said. "In the simplest terms, high prices at peak will lead some customers – both businesses and others – to prefer to save their money rather than use power," he said.

"In fact, the first round of demand response may be both the cheapest and fastest way to improve capacity margins on many systems. The best cost estimates for the first rounds of demand response suggest that it should be available for about \$165/kW, far less than any generation side options ... [and] high prices give [customers] considerable incentive to reduce their overall consumption of power, though no more at peak than at

other times. That is, energy efficiency is essentially a substitute for baseload capacity, while demand response is a substitute for peaking capacity."

The report dovetailed with a Summer Market and Reliability Assessment commissioners heard last month, in which FERC's Office of Electric Reliability said that while the electric system should be reliable this summer, wholesale electric prices are likely to be considerably higher than they were a year ago. Gas prices are on the rise, despite rising production numbers, because of lower-than-expected storage numbers, rising demand, the likelihood of falling Canadian imports and imports of liquefied natural gas and an apparent global commodities boom in most raw materials, according to that assessment.

"I think it's important for the public and the regulating community to see some of the hard realities that we're dealing with, and some of the realities that are shaping FERC policy, but it is a pretty sobering assessment," Kelliher said. "I think it is pretty clear that FERC regulatory policy must be based on reality, and the reality is that we're looking at continued upward pressure on electricity prices – we're looking at higher capital costs for new power plants, higher construction costs, higher fuel costs – and that those upward pressures are going to continue for some time."

"The United States cannot simultaneously make the massive investments necessary to assure security of our electricity supply, make additional large investments to confront climate change and lower electricity prices," Kelliher said. "Doing so would likely result in failure."