

## FACTS SHOW COMPETITION IMPROVES PLANT PERFORMANCE

- "Global Energy uncovered strong evidence indicating the electric utility industry has improved its operations and efficiencies largely because of competitive forces. Some of the power plants with great gains in efficiency had been auctioned off by their prior owners as relatively poor performers. But the skill of experienced fleet operators; the standardization of procedures and maintenance; and the combined buying power of fuel, equipment, and supplies have produced dramatic improvements in capacity factors and plant performance. The cost savings and energy efficiency resulting from reduced refueling outages, improved load factors and reliability continues to substantially benefit consumers. The analysis focused on the nuclear and coal-fueled generating units for traditional and competitive operators." (Global Energy Decisions, "Putting Competitive Power Markets to the Test," July 2005, p. 2-1)

### IMPRESSIVE IMPROVEMENTS IN NUCLEAR AS WELL AS COAL

- "Overall industry improvements in nuclear power plant operations produced enough additional energy to power more than 10 million residential households for one year. Comparable operating efficiency improvements occurred in power plants fueled by coal, which created enough additional energy to power more than 25 million residential households." (GED, p. RS-1) [Based upon average residential customer annual usage of 10,803 kWh per year and the improvements over the cumulative study period of 1999 to 2004.]
- "As with nuclear plants, the fleet of coal plants saw an improvement in capacity factors in the decade between 1995 and 2004... coal-fueled power plant capacity factors increased overall by 16 percent from 61 percent to 71 percent... this increase had the effect of making at least another 50,000 MW of effective generating capacity available for dispatch in 2004 as there was prior to 1995." (GED, p. 2-8)
- For coal units, "new competitive owners were able to achieve a 6 percent heat rate improvement. The environmental impact of the heat rate improvement is 12.3 million fewer tons of coal burned each year for the competitive fleet... while traditional [plants] improved 3 percent since 1999." (GED, p. 2-7)

### MORE POWER GENERATED TODAY FROM EXISTING FLEET

- "There are two sources of economic benefits from nuclear plant operational improvements. First, greater availability means more low-marginal cost nuclear generation, which reduces the need for higher cost generation. Second, improved operating efficiency means lower variable operating costs on a per-MWh basis, which decreases the marginal cost of nuclear plant generation." (Bates White, LLC, "The Pennsylvania Electricity Restructuring Act: Economic Benefits and Regional Comparisons," February 2007, p. 8)
- "Efficiency benefits that were predicted by proponents of competition have, in fact, materialized. Notably, nuclear and baseload coal power plants, which provide low-cost, round-the-clock generation, have increased their efficiencies and produce more generation today than they did under a regulated environment. As an example, Pennsylvania's nuclear power plants, which were divested as a result of the Competition Act, produce 1.7 million MWh more electricity today than they did ten years ago. Our analysis shows the benefit of this additional output to provide between \$50 million and \$130 million in annual benefits to Pennsylvania, and over \$450 million in annual savings to the PJM East region. ... These benefits are the result of the incentives of competitive ownership and participation in the PJM wholesale electricity market. Moreover, those efficiency gains have benefited all consumers, not just larger commercial and industrial customers." (Bates White, p. EX-2)