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CAISO Credits Lower Gas Prices for Decreased Grid Costs

Even with an unprecedented heat storm and resource-consuming revisions to its long-awaited market redesign, the California Independent System Operator (CAISO) lowered its operating costs substantially for the fifth consecutive year in 2006, according to the grid operator's annual report. Moderating natural gas prices were cited as one of the drivers.

The drop in operating and wholesale energy costs "largely follows the trend in the price of natural gas," CAISO said, noting that after rising "steadily" in the 2003-2005 time frame, prices dropped in 2006.

Natural gas-fired generation continued to account for the majority of the megawatts moved over the CAISO grid in 2006, representing 38% of the power. The next largest share was imported power at 25%, which included all fuel types. Hydroelectric supplies represented 15% of the CAISO load in 2006, and nuclear-generated power 13%. The rest was a combination of three renewables -- biomass, geothermal and wind -- at 5% and the rest were unspecified sources of power at 4%.

Average "all-in" wholesale energy costs -- when adjusted for natural gas prices -- declined almost 18% from \$57.83/MWh in 2005 to \$47.55/MWh last year. "This reflects a decline in the total costs associated with serving [wholesale electricity load] in the CAISO control area and includes costs associated with forward-scheduled energy, inter-zonal congestion, real-time energy and congestion management, local reliability needs, ancillary service reserves and CAISO-related charges, such as the grid management charge," the grid operator said.

CAISO Board of Governors Chair Mason Willrich characterized 2006 as a year in which CAISO managed to "strengthen the state's transmission system and promote renewable energy's availability." He said the board approved more than \$3.25 billion in investments in 41 separate projects.

Wholesale energy costs overall declined 16% during the year from \$13.6 billion in 2005 to \$11.4 billion last year, following three consecutive years of cost increases.

Among the grid operator's 2006 accomplishments were exceeding "all operating standards" of the Western Electricity Coordinating Council, handling an all-time record peak demand of 50,270 MW during the 1-in-57-year heat storm in July 2006 and dropping grid reliability costs "substantially" for a second consecutive year (down 57% since 2004).

CAISO CEO Ykout Mansour called the grid operations in 2006 "highly successful" for both CAISO and the power industry as a whole. He called the industry's 2006 story "compelling as the benefits of wholesale market competition continue to materialize."

Mansour said CAISO's market monitoring department, a beefed-up unit in the wake of the 2000-2001 wholesale energy market meltdown, "found increased levels of competition within the California energy markets" last year, with generation outages that were "extraordinarily low" during last summer's heat storm.

"That [development] coupled with a higher level of forward contracting by load-serving entities is tremendously helpful to CAISO operators and their charge to keep the lights on."

