



CALIFORNIA OVERCOMES AN ELECTRICITY CRISIS

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Since an electricity crisis began in California in May of 2000, it has been widely misdiagnosed. The nation's most energy efficient state has been accused of profligacy; its power-plant siting system has been characterized as obstructionist; and the failure of blackouts to materialize during the summer of 2001 has been credited to good weather, a sinking economy and punitive price increases. **None of this is true.** Instead:

1. Electricity consumption increased only modestly in California during the decade of the 1990s, thanks in part to the effective coordination of utility investments in energy efficiency and the state's minimum efficiency standards for buildings and equipment. From 1990-1999, electricity use in California grew at an annual rate of about one percent, matching the state's rate of population growth and lagging far behind the 2.8 percent average growth of the state's economy. Over the same period, electricity use for the nation as a whole grew by 2.2 percent per year, more than twice the annual growth in population.¹ By 1999, energy efficiency investments and standards had removed about 10,000 megawatts from California's peak needs.²
2. For the year 2000 only, the state's annual energy consumption growth rate spiked to about 4.6%. Robust economic growth (almost 9%) and warmer weather both contributed.³ Employment growth slowed but did not stop through the summer of 2001; in June 2001 it stood at an annual rate of about 2%, dropping gradually to 1.0% by September.⁴
3. What emerged in 2001 was the most successful statewide energy conservation campaign ever conducted. The California Energy Commission reports the following data from the California Independent System Operator for the months of January-September 2001: actual electricity use for the ISO control area (covering more than 80% of California electricity use) was down almost five percent over that nine-month period (the most recent for which data are available), compared to a year earlier. And *weather-adjusted* electricity use was down almost six percent over that same nine-month period, compared to a year earlier. The June-September period, which included another relatively hot

¹ See EIA: State Energy Data Report 1999 at: <http://www.eia.doe.gov/emeu/sedr/contents.html>; and Natural Resources Defense Council and Silicon Valley Manufacturing Group, Energy Efficiency Leadership in a Crisis: How California is Winning, pp. 3-4 (August 2001) (citing additional sources).

² See California Energy Commission, The Energy Efficiency Public Goods Charge Report, December 1999, at 12 (savings estimates cover 1975-1998).

³ The Energy Commission's estimate for electricity consumption in 2000 is 264,429 GWh. See http://www.energy.ca.gov/electricity/consumption_by_sector.html. Note also that 2000 was a day longer than 1999, as a result of leap year.

⁴ Data are from reports of the California Employment Development Department, Labor Market Conditions in California.

summer (ranking 25th in the last 107 years, essentially tied with the summer of 2000), produced a decline in actual electricity use of 6.1 percent and an almost identical weather-adjusted drop. The CEC also maintains running estimates of weather-adjusted trends in peak load for the state; the Commission estimates that weather-adjusted peaks for June, July, August and September declined by about 12.2%, 9.1%, 7.7% and 7.0%, respectively, compared with the same months in 2000. The June 2001 reduction represents about 4,750 MW, while avoided peak use for September 2001 was 2,750 MW.⁵ Not coincidentally, by the end of the summer, wholesale electricity and gas prices were back to or below pre-crisis levels.⁶

4. The demand reductions of 2001 reflected a host of coordinated policies and incentives, which were ready in advance and drew on more than two decades of experience. These included a massive public education effort, skillful orchestration of voluntary commitments by the Governor's office, strengthened state efficiency standards, and a host of new financial incentives to save electricity more cheaply than it can be produced. The campaign had already recorded its most dramatic results before significant retail rate increases reached customers in July, so the savings cannot be attributed primarily to price responses. Targeted programs shielded low-income Californians from the rate increases and ensured them access to energy efficiency opportunities.⁷
5. In the early 1990s, the California Energy Commission certified eleven power plants for construction, eight of which (totaling 960 MW) were ultimately completed. Not one power plant application reached the Commission from 1994-1997, reflecting perceived surpluses throughout the West and uncertainties about the future of electric-industry restructuring. But applications revived in 1998, and 31 large gas-fired plants totaling almost 12,000 megawatts had cleared the system as of October 2001; more than 9,000 megawatts were under construction by then.⁸ And 78 smaller renewable-energy systems totaling more than 1,300 megawatts had secured financial guarantees under competitive solicitations administered by the Commission, with most anticipating completion by December 2002 or sooner.⁹ Even before recent legislation had streamlined the application process further, licensing a typical gas-fired plant or large renewable facility required twelve months or less.

Obviously, it is not accurate to blame California's 2000-2001 price increases and grid stresses on recalcitrant regulators, obstructionist environmentalists, or profligate citizens. California has long been an energy efficiency leader, and its remarkable reductions in consumption during 2001 have put the system back on track to affordable and reliable electric service. But the state cannot afford to lose focus or intensity. Long-term solutions, for the West and the nation as well as California, will require significant additional investments in a balanced portfolio of energy efficiency improvements, transmission grid enhancements, and generating resources.

⁵ See CEC, Total Conservation in the ISO Area (10/18/01) (continuously updated at the CEC website, www.energy.ca.gov). When loads are adjusted for economic growth, the reductions are larger still. For June – August weather data, see the National Climatic Data Center summary on the CEC website.

⁶ For example, the surveys of western electricity prices published in California Energy Markets (October 5, 2001 and October 12, 2001) indicate that October 2001 wholesale rates were as low as 1.5 cents/kWh off-peak and 2 cents/kWh on-peak.

⁷ For a full review of these programs and measures, see NRDC and Silicon Valley Manufacturing Group, note 1 above (available at www.nrdc.org and www.svmg.org).

⁸ A regularly updated assessment appears at www.energy.ca.gov/sitingcases/backgrounder.html.

⁹ All these projects are identified at www.energy.ca.gov/renewables/new_renewables_table.html.