

Restructuring in the Rearview Mirror – a 10-Year Retrospective of California’s Doomed Experiment with Electric Deregulation. By The Energy Overseer

Persistence Pays

“Californians continue to conserve.” That’s not the kind of headline that is going to displace the latest anthrax scare or terrorism investigation from the front pages of major newspapers. Still, it’s a story that ought not to fall through the cracks.

In its latest tally of power use, the California Energy Commission reported that during the month of October 2001, peak demand was 8.8 percent lower than during the same month a year ago. That figure continued a trend documented through much of the year, with the monthly reductions ranging from 6.2 percent in January to 14.1 percent in June.

Energy savings based on monthly electricity use have also fallen in the past month, and this October’s year-to-year difference was just 1.5 percent less. Earlier in the summer, the amount of energy savings reached as much as 12.4 percent, according to the CEC analysis, which adjusts metered data for weather and economic factors.

The actual metered load information for October was not yet available, but the summer’s range of consumption savings was between 4.3 percent and 8.4 percent compared to 2000. This September’s figures were right in the mid-range at 5.1 percent, said the CEC.

What does this mean in a practical sense? Well, for consumers, it represents money in the bank, thanks to the state’s 20/20 rebate program. Customers of the big three IOUs have been able to claim the fairly significant reward of a 20 percent rebate off bills for using 20 percent less electricity this past summer compared to last year (there is a 15 percent savings trigger for San Diego customers). By all accounts, the program has been one of the very few good news stories to come out of the energy crisis.

Statewide, roughly one-third of eligible customers managed to capture some of the rebate reward. In Pacific Gas & Electric territory, that translated to \$120 million, according to PG&E rates and account services vice president Bev Alexander.

Savings in other territories were equally impressive. Southern California Edison this week said that it has issued a total of \$132 million in 20/20 credits to 32 percent of its customer base. Residential participation was highest, but a quarter of commercial, industrial and agricultural accounts also participated in the program. Edison estimated that the average rebate was \$12.33 for households, more than \$122 for commercial accounts and a hefty \$146 for agricultural customers.

Even the much smaller utility San Diego Gas & Electric reported that nearly 2 million accounts-- some 36.4 percent of customers--earned a total \$27.5 million in rebates while avoiding 506 GWh of electric use.

So a rough tally shows that energy conservation saved Californians at least \$280 million this past summer. Then there is the impact for customers of municipal utilities, where equivalent energy savings have been seen, if not as fully documented. One muni, Silicon Valley Power, reports an overall 6 to 7 percent conservation savings in October, said general manager Jim Pope this week.

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And that’s just the tip of savings, because we have a harder time measuring other avoided costs. By reducing energy use, utility customers also avoided penalties associated with higher electricity rates that were enacted this year. We have not seen any analysis of how the disincentives for use above 130 percent of baseline levels have affected utility billings, but it is safe to say that each kilowatt-hour avoided at those levels saved the consumer at least a penny or two.

Then there is the avoidance of emergencies. No matter how much the governor would like to credit power purchases by the Department of Water Resources with staving off further system emergencies, it was clearly reduced energy use combined with somewhat increased generating availability that helped quell the crisis and pull down wholesale power prices.

More analysis needs to be done, but those peak reduction figures from the CEC translate to between 3,000 MW and 5,500 MW of load--pretty much the difference between a healthy reserve and a Stage Two Emergency, with all that entails.

The difference is not due to a milder summer, the CEC believes, because actual temperatures in 2001 were not that much different than in 2000; both years ranked about 25th in terms of summer temperatures over the past century. And yet, in 2000 there were 29 days when peak loads recorded by the California Independent System Operator exceeded 40,000 MW. During 2001 to date, there have been just 6 such days.

That’s all good news. Now, the important question is “How much of this conservation is sustainable?” After all, conservation savings based on temporary rebate programs and fear of blackouts are bound to dissipate--and the tailing off of program results during October may be an indication of this.

This is the key public policy question surrounding energy efficiency. We have some initial indications about how and why consumers used less power this year, based on work conducted by consulting firm Xenergy’s Oakland office.

The implication of the analysis, which was presented to the CEC as part of its “Energy Outlook” workshops last month, is that much of the conservation effort may not persist if customers perceive that the energy crisis has ended.

That’s not to say we should fabricate a continued crisis (although politicians seem to have tried their best), but we need to shift the emphasis from temporary incentives and behavioral measures to structural changes that will have a more lasting impact.

The Xenergy study was based on eight customer focus groups in various cities and 767 completed surveys. The preliminary findings showed that nearly every respondent was aware of the energy crisis and took some form of savings action, especially during days of system alerts.

- According to the surveys, 94 percent of respondents “expect to continue to conserve as long as the crisis lasts.”
- Almost all said they conserved by turning off lights (70 percent), shutting off office equipment (25 percent) and/or changing thermostat settings (48 percent).

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- Higher energy prices were more of a factor in altering behavior than fear of blackouts, with 57 percent citing prices compared to 22 percent indicating that outages motivated their actions.
- About one-third identified “civic duty” as a reason for conserving.

Those are all behavioral changes, but a key action that could have lasting impacts was that customers’ desire to avoid higher rates led to a doubling of lighting equipment changes compared to 1999. Also, one in five of the customers in the study had made some sort of changes to cooling equipment, such as replacing “fully functioning” equipment with more efficient models.

What this suggests is that now is the time to capitalize on the increased awareness of energy efficiency and conservation and to do everything possible to emphasize investments in programs that will bring lasting savings. “Behavioral change doesn’t promote long-term conservation,” concurred Silicon Valley Power’s Jim Pope. “Investments in conservation lend themselves to more structural changes.”

Among some of the continuing efforts to do just that will be the CEC’s next generation of revisions to Title 24 building efficiency standards. Workshops begin on November 14-16 to preview and refine residential and nonresidential standards for 2005.

Higher prices, system outages and political turmoil may have been the hallmarks of California’s energy crisis in the past two years. Before they fade from memory, we can take the one positive thing we’ve gained--the reawakening of a conservation ethic--and turn it into a solid foundation for the future **[Arthur O’Donnell]**.

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