The $9 billion in refunds requested by the state of California for wholesale electricity purchases for the period May 1, 2000 to May 31 this year may be just the tip of the iceberg. This number accounts only for overpayments for spot-market purchases. It ignores overpayments for the large quantity of the state's forward-contract purchases during the winter and spring of 2001 for delivery of power from June 1 this year to Sept. 30, 2002.

The Federal Power Act states that the Federal Energy Regulatory Commission must set just and reasonable wholesale electricity prices, and order refunds for any payments in excess of that. The law does not distinguish between spot- and forward-market purchases. If any of the prices charged to California consumers by entities that FERC regulates are unjust and unreasonable, then it must order refunds.

On June 19, the FERC implemented a price mitigation plan designed to limit the market power that generators exercise in the California Independent System Operator's spot electricity market from June 21 to Sept. 30, 2002. However, all of the forward contracts signed by the state for delivery during this time were negotiated during the winter and spring of 2001. At that time, the Bush administration vigorously opposed price mitigation for California, and FERC refused to limit generators' ability to exercise market power in the California market.

This inaction by FERC left California officials with no bargaining power to negotiate delivery of electricity for the next two years. Unless FERC requires it to do so, a profit-seeking generator will not offer a long-term contract for delivery at prices it expects will yield less profit than it expects to earn from selling in the spot and shorter horizon forward markets over the duration of the long-term contract.

As a consequence, California's only option was to enter into 5-to 10-year contracts, to get a price that was lower than the expected spot price for the first two years but higher than the expected spot price for all later years of the contract.

A simple example illustrates this. Suppose a generator expects it will be able to sell electricity at prices that average $300 per megawatt hour from June 2001 through May 2002; $150 per MwH from June 2002 through May 2003; and $45 per MwH for all years after May 2003.

Consider a contract that offers 1/20th of its energy in the first year, 1/10th in the second year and 17/20 in years 3 to 10. Only if California officials were willing to pay at least $68.25 per MwH (0.05x300 + 0.1x150 + 0.85x45) for this contract would a profit-maximizing generator be willing to offer it.
This shows that the contracts California signed during the winter and spring did not allow it to avoid paying for the considerable market power that will exist for the next two years because of FERC’s inaction. Instead, California paid for this market power on the installment plan, through higher prices in the later years of the contracts.

Because few generating units can be put into service before summer 2003, the market for electricity deliveries made after that date is very competitive. Firms face significant competition to supply electricity after early summer 2003, from many potential entrants using combined-cycle gas turbine technology that is almost twice as efficient as most existing gas-fired facilities in California.

Because new facilities take at least two years to site and build, little effective competition will exist for generators in California for the next two years. Fortunately, many power plants are under construction and are likely to begin operating during the winter and spring of 2003. However, without FERC intervention, there is little California can do to prevent generators from shutting old units when these new facilities begin operating, to create market conditions similar to those that existed during the winter and spring of 2001.

Consequently, if FERC is serious about protecting California consumers from electricity prices that reflect the exercise of market power from June 2001 to September 2002, the period covered by its June 19 order, it must mitigate the prices of all forward-contract deliveries covering this time period. Because of the considerable amount of market power reflected in these forward contract prices, the total refunds due for this 16-month period could be greater than $9 billion.

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