

## **“How to Create the Equivalent of 10,000 MW of New Capacity by June 2001”**

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California can create the equivalent of more than 10,000 MW of new generating capacity before we hit the highest energy usage peaks of Summer 2001. Moreover, this new “generating capacity” would likely reduce wholesale electricity prices paid by all Californians. How is this possible? By allowing final energy users to say no to consuming electricity at high peak wholesale prices. Under the current prices faced by customers in California, consumers do not have the right to say no to high hourly wholesale prices and receive the benefits. Moreover, the current fixed retail price is significantly below the wholesale electricity price in California because wholesale generators serving this market are driving prices up through their exercise of market power. The state has to make up this difference using tax revenues.

A simple change in how electricity is paid for can dramatically reduce the amount it costs. Energy consumers should purchase their energy needs during each hour at the actual hourly wholesale price of energy. Because many energy users would rather use less on-peak energy than pay these extremely high prices, California would create the equivalent of new generation capacity equal to the peak demands of these customers. For example, paying 50,000 customers with peak demands of 100 kW to purchase according to the hourly spot price could create the equivalent of 5,000 MW of new generation capacity almost overnight. This would reduce significantly the total amount of money Californians pay for energy. The only losers from this scheme are generators selling into California.

To understand how this plan would work consider an example. Suppose there are two periods in the day and the wholesale price happens to be \$0.05/kwh in the off-peak period and \$0.50/kwh in the on-peak period. Suppose the customer starts with a frozen rate of \$0.10/kwh and consumes 50 kWh in each period for a daily total of 100 kWh. The customer’s total bill for this day is \$10. However, the total cost of purchasing the electricity he consumed is \$27.50, so California taxpayers must pay \$17.50.

Now suppose instead this customer can purchase 90% of its use from last year at the 2000 fixed retail rate. Any purchases beyond that level in each hour would be paid for at the prevailing wholesale price for that hour and any consumption below that hourly level would be rebated at the hourly wholesale price. Now, suppose the consumer shifts 20% of his use from peak to off-peak. His bill goes down, the total cost of purchasing wholesale power goes down, and everyone wins except for wholesale energy sellers.

Customers whose electricity consumption during 2000 was not measured on an hourly basis should be assigned an representative load shape that is the average of the actual hourly load shapes for similar customers located in the same geographic scaled up to that customer’s monthly consumption. Under SB 5, recently signed by the Governor, all customers with peak

demands above 200 kW will have interval meters before the summer of 2001 and can be put on this pricing plan using this scheme for assigning a baseline hourly demand level for 2000.

This scheme does not require the customer to consume less electricity on a monthly basis to realize monthly bill reductions. It simply requires the customer to reduce on-peak use. In the above example, the customer could consume more energy in the day, yet its total bill could be reduced as well as the amount that taxpayers pay!

Given the crisis situation in California, this pricing program must be mandatory for all large commercial customers. The CPUC's recently announced 40% price increase for these customers significantly increases the potential cost-savings to California taxpayers from implementing this program. A 40 % increase in the fixed rate these customers pay virtually guarantees that their monthly bill will increase. However, a real-time pricing program offers the customer the opportunity to reduce his bill if he achieves close to the baseline consumption levels in each hour or shifts consumption away from high-priced hours.

To survive the summer of 2001 without many hours of rolling blackouts, California must make better use of existing generators. This can be best accomplished by providing the hourly price signals to customers with hourly meters to shift their consumption of electricity away from high-price hours to low-price hours. To obtain the greatest benefit from this program, real-time metering technology should be implemented for all customers, including residential, as soon as possible. Consumers having the ability to reduce their bills by shifting their electricity consumption away from high price hours will also significantly reduce the ability of generation unit owners to exercise market power in California's wholesale electricity market.