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

Curtailment Fatigue Syndrome and PX Sticker Shock

During this summer's run of high electricity prices and political backlash against restructuring, the continuing plight of San Diego consumers has been the center of media attention--and now federal focus in the form of emergency aid and Federal Energy Regulatory Commission scrutiny.

By and large, news accounts of the situation have characterized energy users in Southern California Edison and Pacific Gas & Electric territory as immune to the effects of price volatility because, unlike San Diego Gas & Electric, those utilities are still under the rate freeze enacted by restructuring law AB 1890.

That's not entirely true. With each passing system emergency and new quantum leap in pricing on the Western energy market, many direct-access and utility customers who have exposed themselves to the vagaries of the market through curtailment contracts, real-time rates and certain economic development tariffs are hit again.

They are getting tired of it. Many are rethinking their commitment to market-based pricing or interruptible operations and are trying to drop off the programs. Others will fail to renew contracts when they expire later this year. This runs counter to the current attempts by utilities and market agencies to recruit more participants in demand-relief programs.

"This has been the toughest summer," sighed SoCal Edison news representative Gil Alexander when queried about the state of the utility's interruptible program. Though the program has been a boon to businesses for many years because it was rarely implemented, Edison in particular has been hit with repeated calls for curtailments to help prevent a reliability crisis in Southern California.

So far, the California Independent System Operator has had to call 24 Stage One alerts and 15 Stage Two emergencies. The first stage signals a dip into reserve margins below 7 percent and a request for voluntary conservation by all consumers.

Stage Two, as many have discovered this year, is a more serious incursion into system reliability below a 5 percent margin that necessitates varying levels of curtailment by customers who have signed interruptible contracts.

Stage Three, which has never been declared on a statewide basis, means reserves are nearly depleted and the Cal-ISO could require rotating outages among all utility customers. Pacific Gas & Electric in mid-June experienced the equivalent of a Stage Three because of voltage stability problems in the San Francisco Bay Area, with about 97,000 customers cut for varying periods.

The alerts are declared statewide, but--PG&E's instance notwithstanding--seem to fall harder on Edison because it has the greatest level of interruptible participation. Edison's maximum potential for contract curtailment is 2,400 MW from some 127,000 accounts. According to Alexander, there are 125,000 households on air-conditioning cycling, pool-pump cutting or other forms of curtailment plans. About 300 agricultural customers and 1,700 commercial/industrial users are also signed up to shed or shift load when the squeeze hits.

In contrast, PG&E has about 500 MW of interruptible load and SDG&E 40 MW. PG&E's system is also more differentiated by region. For instance, some curtailments have targeted the constrained Bay Area, while others were enacted in the Bakersfield/San Luis Obispo region. This spreads the pain somewhat.

There have been times this year when the full statewide complement has been called upon to get Cal-ISO through a tight spot. Edison's Alexander said there have been three instances this summer when Cal-ISO has asked the utility to curtail all of its participating customers. Like PG&E's involuntary cuts, this is an unprecedented situation.

Not every customer is curtailed during each Stage Two, and some who are called upon decide to face an economic penalty rather than cut operations on that particular day.

The curtailment deal has historically been a good one for customers, who receive as much as a 20 percent discount off standard tariffs. My understanding of contracts is that they specify a maximum number of curtailment episodes from June through October. Many of these customers are now approaching their maximum.

In a recent advice letter to the California Public Utilities Commission, Edison proposed changes to air-conditioning cycling programs to expand the potential number of curtailments by exempting from the limit of 15 cumulative curtailments instances when the utility may be able to avert a Stage Three Emergency or times when continued operations could damage the distribution system in some way.

By mid-August, when the filing was prepared, the customers in the program had already been called upon 10 times this year, Edison reported. Given the fact that September is often the hottest month of the year, Edison worried that the program could hit its limits.

Some customers are more flexible than others and participate in more than one curtailment plan. This summer has brought a record number of pumping curtailments for the Metropolitan Water District of Southern California to help Edison meet peak demand via a load-shifting program.

MWD, which supplies drinking water to 16 million people, has shut down its powerful water supply pumps for up to four hours 16 times this year, freeing up to 100 MW each round.

Previously, the average number of annual curtailments was 10, with 12 being the prior all-time high, said Eddy Rigdon, assistant manager for MWD's water management operations. Under its contract with Edison, which ends September 30, MWD can be called on to shift the times it transports and delivers water 20 times. In exchange, it receives a one-third boost in its energy supply during off-peak hours. Another first for MWD is that it has shed load under its interruptible contracts with Edison seven times this year, something it had never had to do previously.

MWD has a certain amount of flexibility to move water around as needed, but the rise in the curtailments is of concern. "At this point we are working with Edison to be flexible and not compromise water supplies," Rigdon said.

A second, and admittedly smaller, group of utility customers has been feeling the pinch of Power Exchange price volatility because they have signed up for special market-based tariffs. Again, it appears that Edison's accounts are being hit just as hard as any customer in San Diego territory.

According to utility spokesperson Alexander, about 150 large customers have signed up for various "flexible pricing programs"--many of them tied to the CalPX daily or hourly price:

- Incremental sales tariffs, which provide special rates for energy consumption beyond historic averages, have enrolled about 40 customers as an incentive to expand their operations within the state.
- Spot pricing amendments have been used by 30 customers, mainly agricultural water pumpers on the interruptible energy I-6 tariff.
- Approximately 40 large real-time meter customers have elected to install time-of-use meters.
- Economic development rates have been used to entice about 40 companies to relocate within Edison territory.
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PG&E also has economic development rates and time-of-use programs, but according to utility representative John Tremayne, customers are offered percentage discounts off the standard tariffs, rather than PX-based pricing. PG&E has about 50 MW of load on real-time meters, specifically the industrial and commercial customers on the E-19 and E-20 tariffs.

Neither utility reports any residential customers taking real-time meter service at this time.

According to Edison, about half of the customers facing price volatility under the incremental sales and real-time tariffs have expressed a desire to leave the program for the security of stable, if sometimes higher, standard rates.

The biggest problem appears to be for those on the economic development rates (EDR), who signed seven-year contracts at what they thought would be lower "market-based" prices for five years. According to Alexander, the utility has unilaterally decided to cease billing them at CalPX rates this summer and has asked the CPUC to allow it to change the contracts accordingly.

In the filing, Edison provided an example of the kind of PX sticker shock that would otherwise be experienced by these customers. "One EDR customer would have received a May floor bill of $82,698, compared to his [otherwise applicable tariff] of $57,988, a penalty of $24,710 or 43 percent." Another EDR account would have seen seven months of accumulated savings wiped out by the May bill alone.

As many customers can now testify, May was just the beginning of the high-price season **[Arthur O'Donnell].**

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