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

## **The Changing Energy Marketplace**

The wholesale energy market that exists today is something wholly new, yet it is also the product of nearly 100 years of evolution in the electric utility industry. That so much could change in the past five years is astounding--something like the biological leap postulated by scientists to explain how dinosaurs gave way to mammals. But as they say in non-scientific circles: You ain't seen nothing yet.

Utility service and electric generation have traditionally been seen as "natural monopolies," although now we recognize that they were really just political monopolies. As technology advances and as political and economic philosophies adjust to new situations, we see that monopolies are what we allow them to be.

The traditional wholesale electric marketplace was characterized by long-line transmission cables crossing utility territories and perhaps state lines. This more efficiently allocate the energy resource to take advantage of load differences between utilities or to increase service reliability over a broad area.

Different customer load profiles or climatic conditions allowed for transfers of energy surplus to areas of undersupply. Transmission lines enabled the power flows to accomplish this, even over distances of thousands of miles. In many cases, it was less a "sales" market than an exchange market--utilities logged transactions at "market" prices, but really they were just selling to each other and hoping that over a period of time the accounts might balance out.

The Western region offers a prime example of a diverse market. We usually think of the Pacific Northwest as the resource-rich region selling its huge surpluses of hydroelectric power to California or along the few accessible corridors into the Southwest. Transmission lines were planned and built to accommodate these transfers.

Interestingly, the differences in weather patterns among these regions encouraged ample flows from California into the Northwest, and there are periods when Northwest imports exceeded exports. Excess nuclear generation in Arizona for several years turned some Southwestern utilities into net sellers of bulk power. For a while, the trend in wholesale markets was signing "diversity exchange" agreements between regional utilities--with little money changing hands except to balance accounts annually.

The most active wholesale market for nearly 50 years was within the Northwest, conducted by members of the Intercompany Pool (ICP), a rather tight "coordination" pool that each day traded surplus energy among the seven utility members. Traders even sat together in the same room, an office in Spokane, where all would have access to the same information about generation resources and weather conditions that might affect resource balances. Prices were generally set by the Bonneville Power Administration, and everyone else just moved power around. Those outside the pool had little or no access to the same information, and daily prices were a tightly held secret. Last year, ICP disbanded--a function of changing times and increased scrutiny by anti-trust regulators.

The federal power marketing associations--BPA and the Western Area Power Administration in the West--were really the wholesale models. They sold the resource under long-term contracts to public-power preference entities who then provided retail

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services, and they marketed daily surplus energy to others in the region under formalized guidelines affecting sales priority and resale usage.

California utilities took advantage of this situation to the extent allowed, but the state also hosted another important wholesale development--the creation of a huge market for independent power from qualifying facilities (QFs) and non-utility cogenerators. Transactions were tightly controlled through long-term sales contracts to specific utilities--with virtually no opportunity for sales to other markets--and prices were set by administrative "avoided-cost" formulas.

Still, the QF industry represented a major advance in the marketplace by breaking down the concept of utility monopoly control over generation and by introducing several kinds of new technologies (more-efficient gas-combustion and a wide range of renewable resources) that otherwise would not have found a way into utility portfolios.

Although utilities routinely complain that QF power is "overpriced" compared to "market" power, it is readily apparent that the wholesale market we see today did not exist at all when those contracts were signed and would not have come into place without the advances in technology and the entrepreneurial opportunities initiated by independent power companies.

**Today's bulk power system is a vibrant "bilateral" market** in which scores of power traders--many of them non-utility marketers and brokers or unregulated utility affiliates--buy and sell on an hourly, daily and monthly basis. Longer term contracts are often tied to price-hedging financial instruments or futures contracts developed by the New York Mercantile Exchange.

Prices are still a bit of a guessing game for those outside the system, but electronic posting on the Western Systems Power Pool and a constant exchange of information among traders--via telephone, fax, e-mail and modem--allows for the almost instantaneous transfer of marketplace data. To track the market, no fewer than five publications now offer price "transparency" through various market surveys and indexes. Nationally recognized news providers such as Dow Jones and Reuters are moving to deliver "real time" energy prices and electric power resource information.

And the volumes of transactions are exploding. According to Jeff Skilling, president of Enron Corporation--which has become the top non-utility seller of power throughout the nation and is aiming at dominating the market--energy sales on the Western wholesale market will "exceed sales for the Power Exchange in California." That is no small achievement, given that the state's utilities are mandated to purchase all electric requirements through the PX.

Skilling considers the Western market "a stunning success" in terms of forcing more-efficient allocation of power and lower prices. "Even in the Northwest," Skilling said, "prices have fallen 30 percent to 40 percent since competition started in 1995 and by 15 percent compared to the two best years in the previous decade."

**Important changes are still to come.** New market structures, such as the PX and the various independent system operators for transmission, will no doubt have an impact on the way transactions occur and on energy prices. Exactly what those changes will be is uncertain--although we can safely predict the California PX will have an impact well

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beyond its borders. Enron's Skilling believes the PX will eventually fail or will become "just another market maker" rather than the be-all/end-all marketplace for the West that regulators and some utilities intend it to be.

Price volatility will increase as market moderating mechanisms (long-term contracts, regulatory rate adjustments, etc.) give way to faster, real-time transactions afforded by improved technologies and competitive drives.

The use of financial instruments, futures contracts and options will either smooth out volatility or exacerbate it--depending on your point of view.

**But the biggest change will come** as competitors turn their attention from wholesale markets to retail services in California and other US markets. Already, a vast repositioning effort is underway--characterized by mergers, strategic alliances and structural reorganizations. Companies that have been gaining competitive experience in bulk power sales are focusing on customer-based services. Even utilities are in constant reorganization, creating and revamping affiliates to meet future challenges.

Someday soon, the term "customer choice" will have real meaning, and perhaps technological breakthroughs will encourage local generation, home energy systems or even energy storage devices that can forever break down the "natural monopoly" of utility distribution and transmission [Arthur O'Donnell].

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