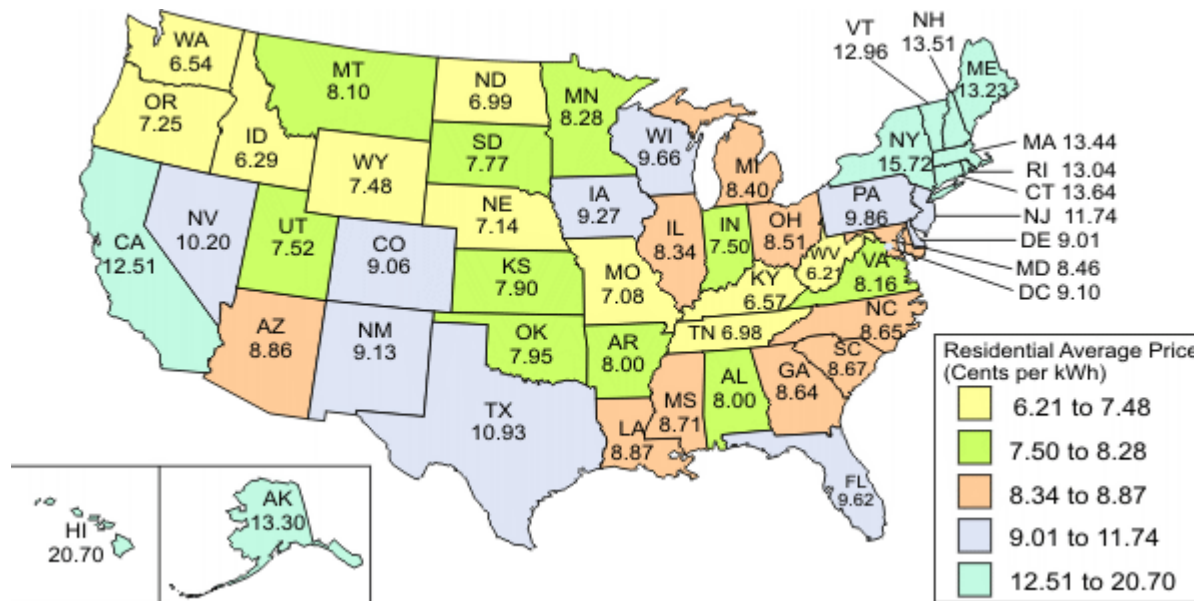


# State Restructuring and the California Experience





1990:

CA: 9.98 residential

7.28 industrial

8.84 average

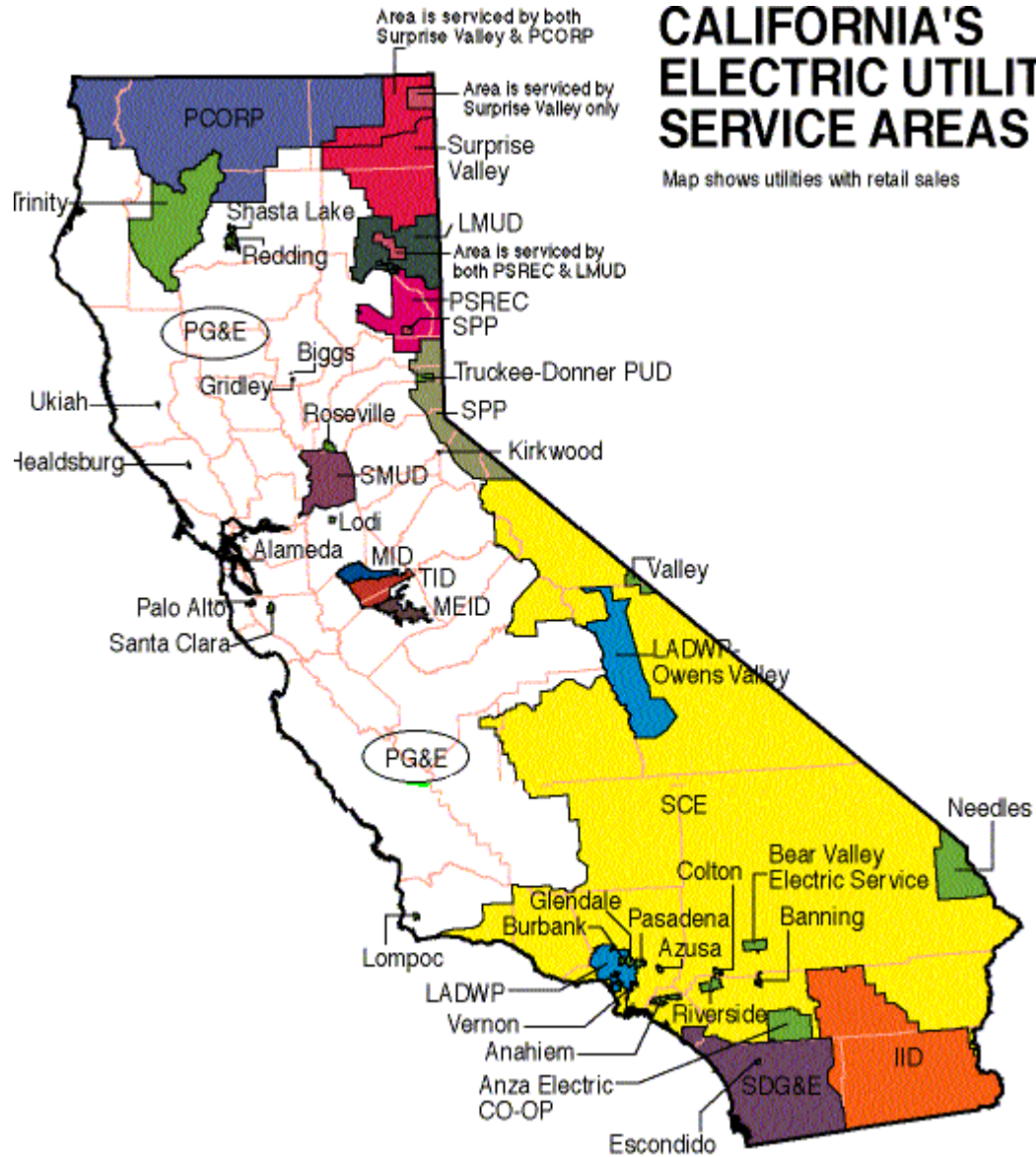
OR: 4.73 residential


4.79 industrial

4.18 average

# CALIFORNIA'S ELECTRIC UTILITY SERVICE AREAS

Map shows utilities with retail sales





**1994**  
**California Public Utilities**  
**Commission (PUC)**  
publishes the  
***Blue Book***

**1995/1996  
PUC proposed  
and adopted  
policy for  
introducing  
competition**





**1996**  
**Gov. Pete Wilson**  
**signed**  
**AB 1890 into law**

# AB 1890

- Created new industry structure
- Included consumer protection
- Addressed stranded costs
- Protected system reliability
- Created public purpose/environmental funds

# Industry Structure

- **ISO** – Independent System Operator to manage the transmission system
- **Cal PX** – California Power Exchange to establish spot market for electricity

# ISO

- Proposed by PG&E, SDG&E, and SoCal Edison
- Approved by FERC in 1996
- Scheduled transmission from PX and non-PX coordinators

# Cal PX

- Approved by FERC 1996
- Voluntary participation in PX
- Except 5 year transition period for large incumbent utilities
- Public utility under Federal Power Act
- Runs day-ahead and hour-ahead auction
- Coordinates with ISO

# Consumer Protection

- Rate freeze imposed for residential and small commercial customers -- 10% discount from 1996 prices
- Rate cap for large commercial and industrial user

# IOUs

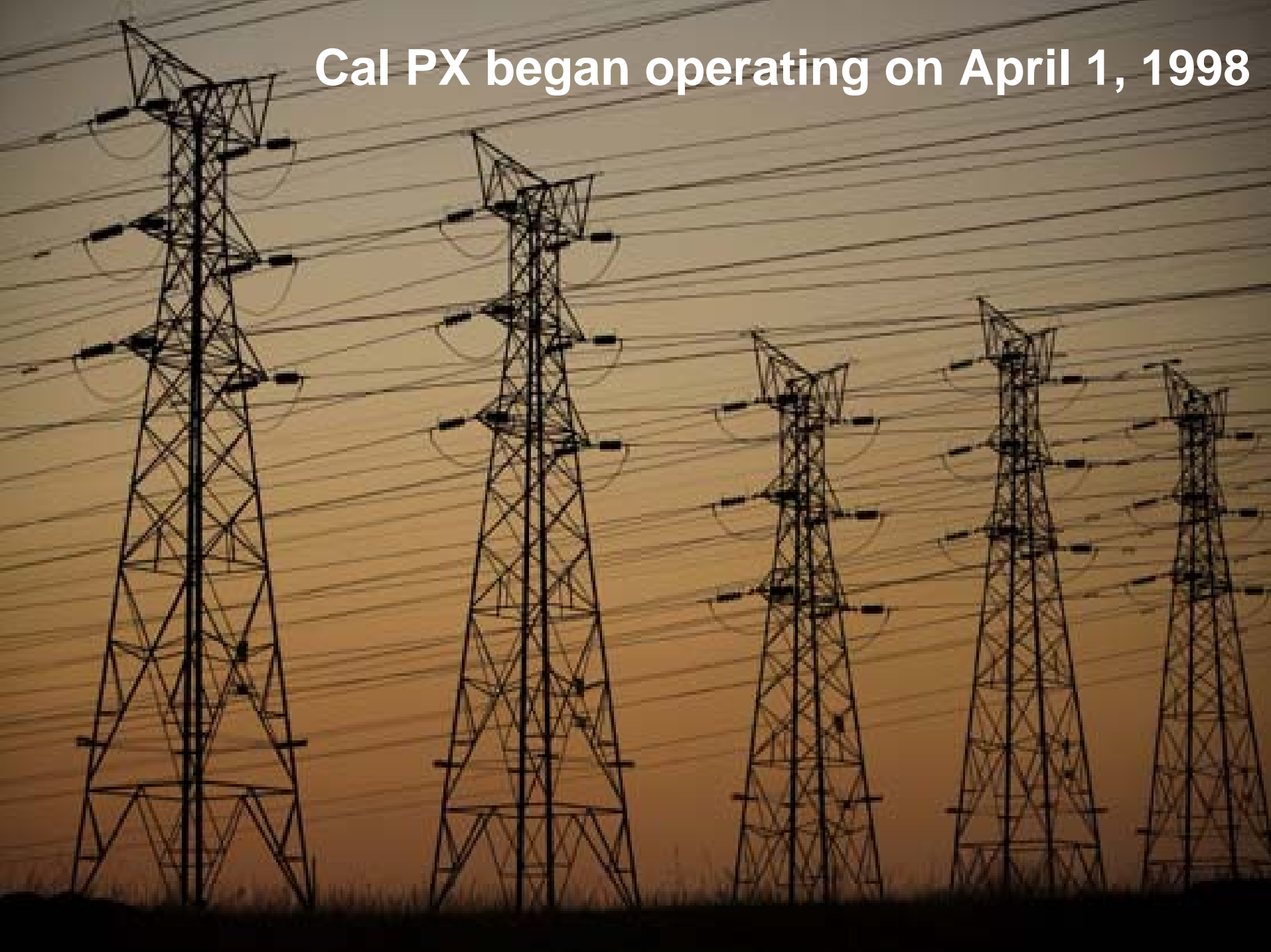
- IOU's encouraged to sell off generation capacity through incentives
- Required to sell power to PX
- Prohibited from long-term contracts
- Rate freeze

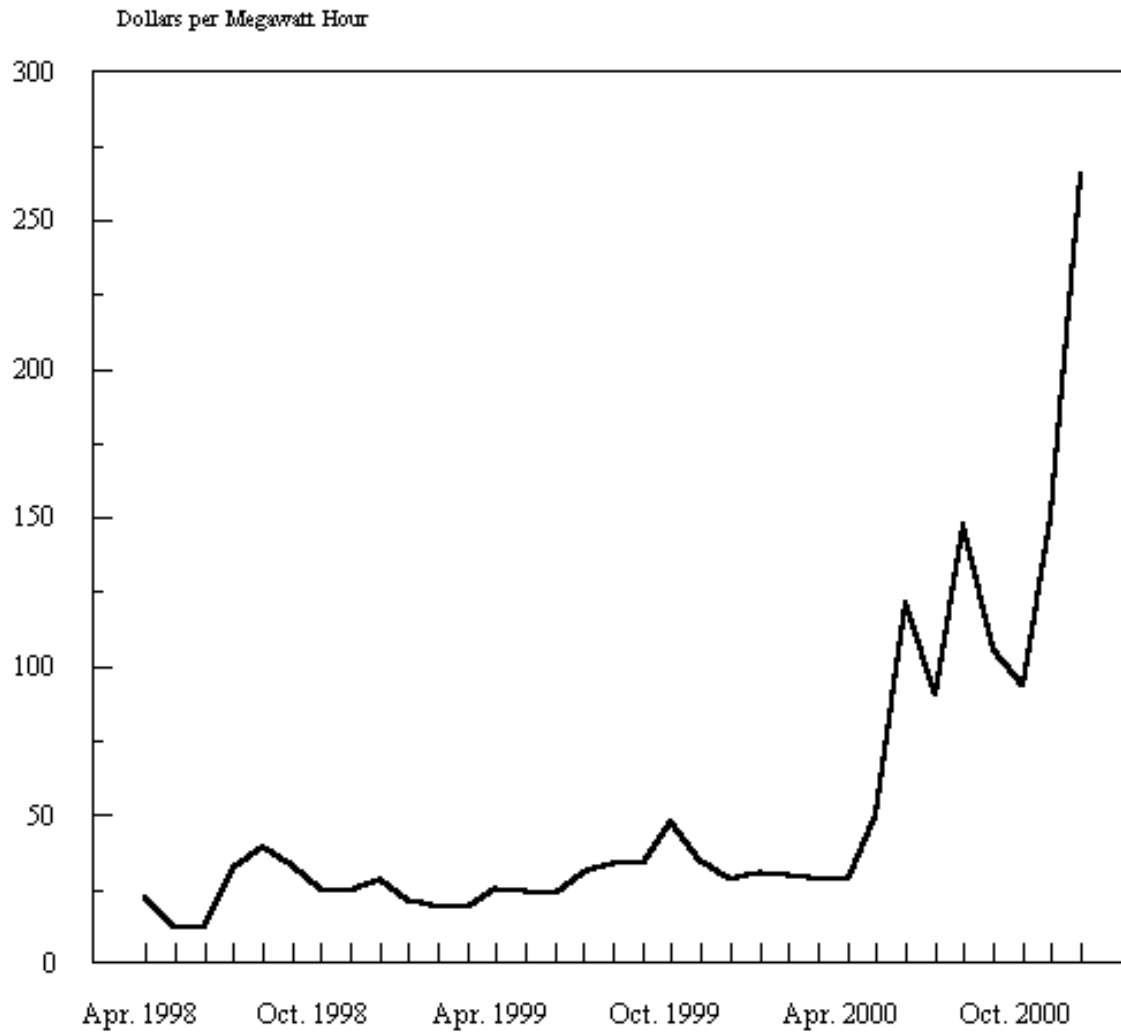
# Stranded Costs

- Utilities could recover stranded costs during a prescribed period (ending in 2002) through ***Competition Transition Charges***



**Cal PX began operating on April 1, 1998**





Average prices that utilities paid for electricity in the CA PX day-ahead auctions: April 1998 – December 2000

# Rolling blackouts began in June 2000

## How an Edison Blackout Works

A rolling blackout or rotating outage begins with the California Independent System Operator directing the state's investor-owned utilities to reduce the electrical load by a certain number of megawatts. To accomplish this, both Southern California Edison and Pacific Gas & Electric use radio and television to notify their customers about the 10-minute rolling outages. Each Edison group handles a 500 megawatt circuit.

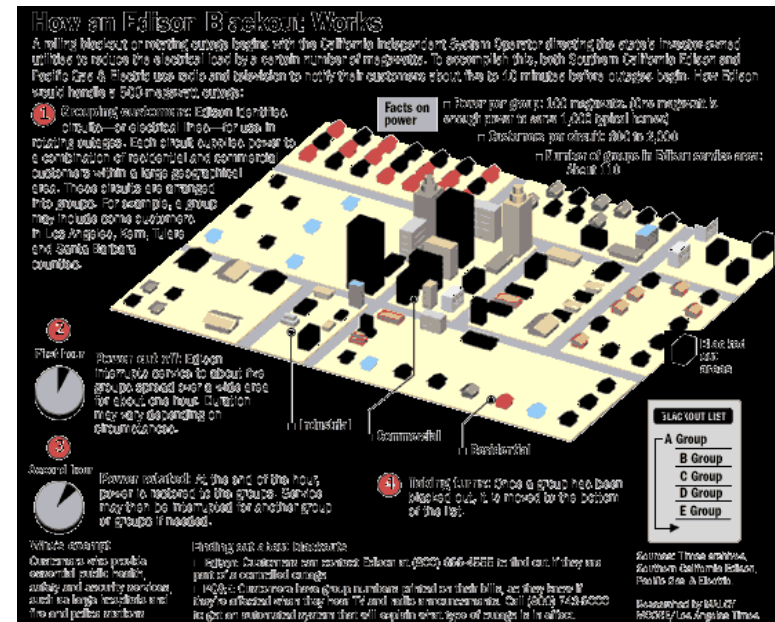
1. Edison identifies circuits—or electrical lines—for use in rotating outages. Each circuit supplies power to a combination of residential and commercial customers within a large geographical area. These circuits are arranged into groups. For example, a group may include some customers in Los Angeles, Kern, Tulare and Santa Barbara counties.

2. Edison interrupts service to about five groups spread over a wide area for about one hour. Duration may vary depending on circumstances.

3. At the end of the hour, power is restored to the groups. Service may then be interrupted for another group or groups if needed.

4. Once a group has been blacked out, it is moved to the bottom of the list.

5. Edison identifies circuits—or electrical lines—for use in rotating outages. Each circuit supplies power to a combination of residential and commercial customers within a large geographical area. These circuits are arranged into groups. For example, a group may include some customers in Los Angeles, Kern, Tulare and Santa Barbara counties.



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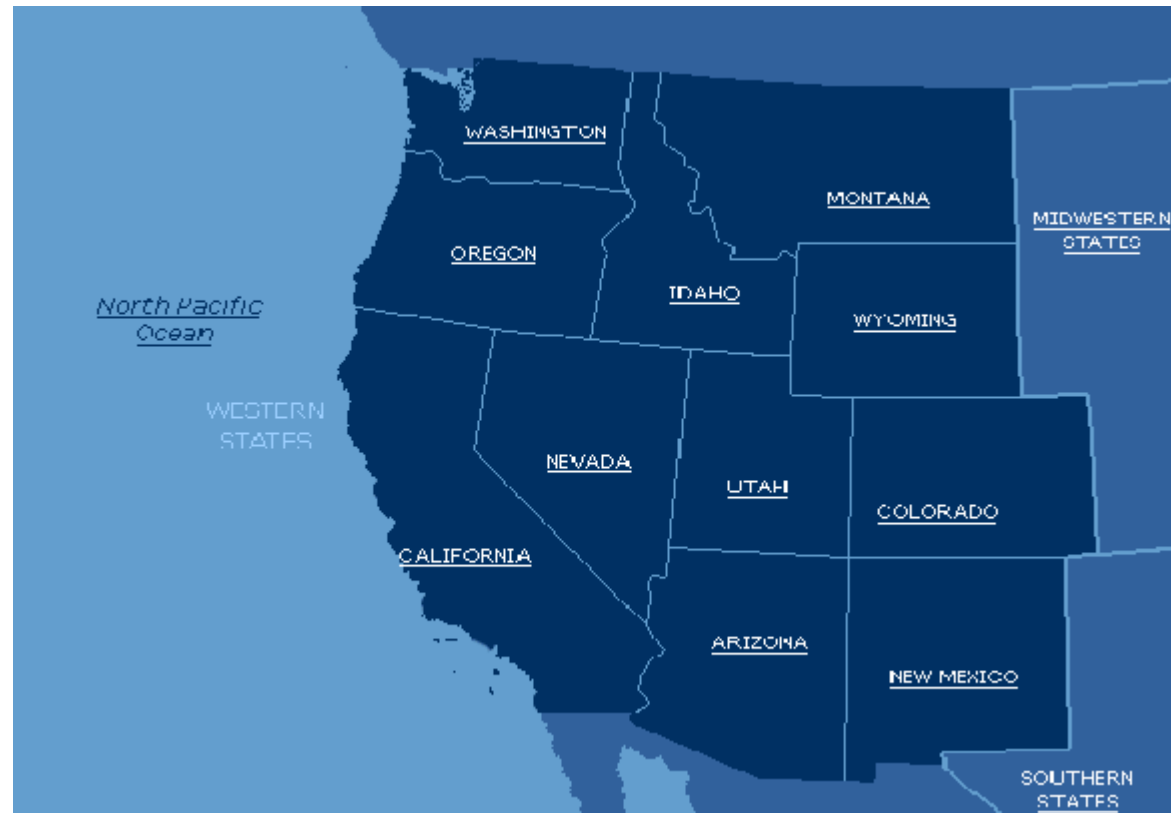
Power cut off: Edison interrupts service to about five groups spread over a wide area for about one hour. Duration may vary depending on circumstances. . . . At the end of the hour, power is restored to the groups. Service may then be interrupted for another group or groups if needed. . . . Once a group has been blacked out, it is moved to the bottom of the list.

**California produced 75% of its power in-state.  
In-state production depended on natural gas  
Natural gas prices skyrocketed 2000-2001**

**Imports:**

**11% from the NW**

**14% from the SW**





**Drought in the Northwest and  
heat wave in California and Southwest**

# **Power marketers manipulated the market**

**August 2000, Governor Davis  
calls for an investigation into  
possible price manipulation**

STOEL RIVES LLP

MEMORANDUM

December 6, 2000

TO: RICHARD SANDERS  
FROM: CHRISTIAN YODER AND STEPHEN HALL  
RE: Traders' Strategies in the California Wholesale Power Markets/ ISO Sanctions

*CONFIDENTIAL: ATTORNEY/CLIENT PRIVILEGE/ATTORNEY WORK PRODUCT*

This memorandum analyzes certain trading strategies that Enron's traders are using in the California wholesale energy markets. Section A explains two popular strategies used by the traders, "inc-ing" load and relieving congestion. Section B describes and analyzes other strategies used by Enron's traders, some of which are variations on "inc-ing" load or relieving congestion. Section C discusses the sanction provisions of the California Independent System Operator ("ISO") tariff.

**A. The Big Picture**

1. "Inc-ing" Load Into The Real Time Market

One of the most fundamental strategies used by the traders is referred to as "'inc-ing' load into the real time market." According to one trader, this is the 'oldest trick in the book' and, according to several of the traders, it is now being used by other market participants.

To understand this strategy, it is important to understand a little about the ISO's real-time market.<sup>1</sup> One responsibility of the ISO is to balance generation (supply) and loads (demand) on the California transmission system. During its real-time energy balancing function the ISO pays/charges market participants for increasing/decreasing their generation. The ISO pays/charges market participants under two schemes: "instructed deviations" and "uninstructed deviations." Instructed deviations occur when the ISO selects supplemental energy bids from generators offering to supply energy to the market in real time in response to ISO instructions. Market participants that increase their generation in response to instructions ("instructed deviation") from the ISO are paid the "inc" price. Market participants that increase their

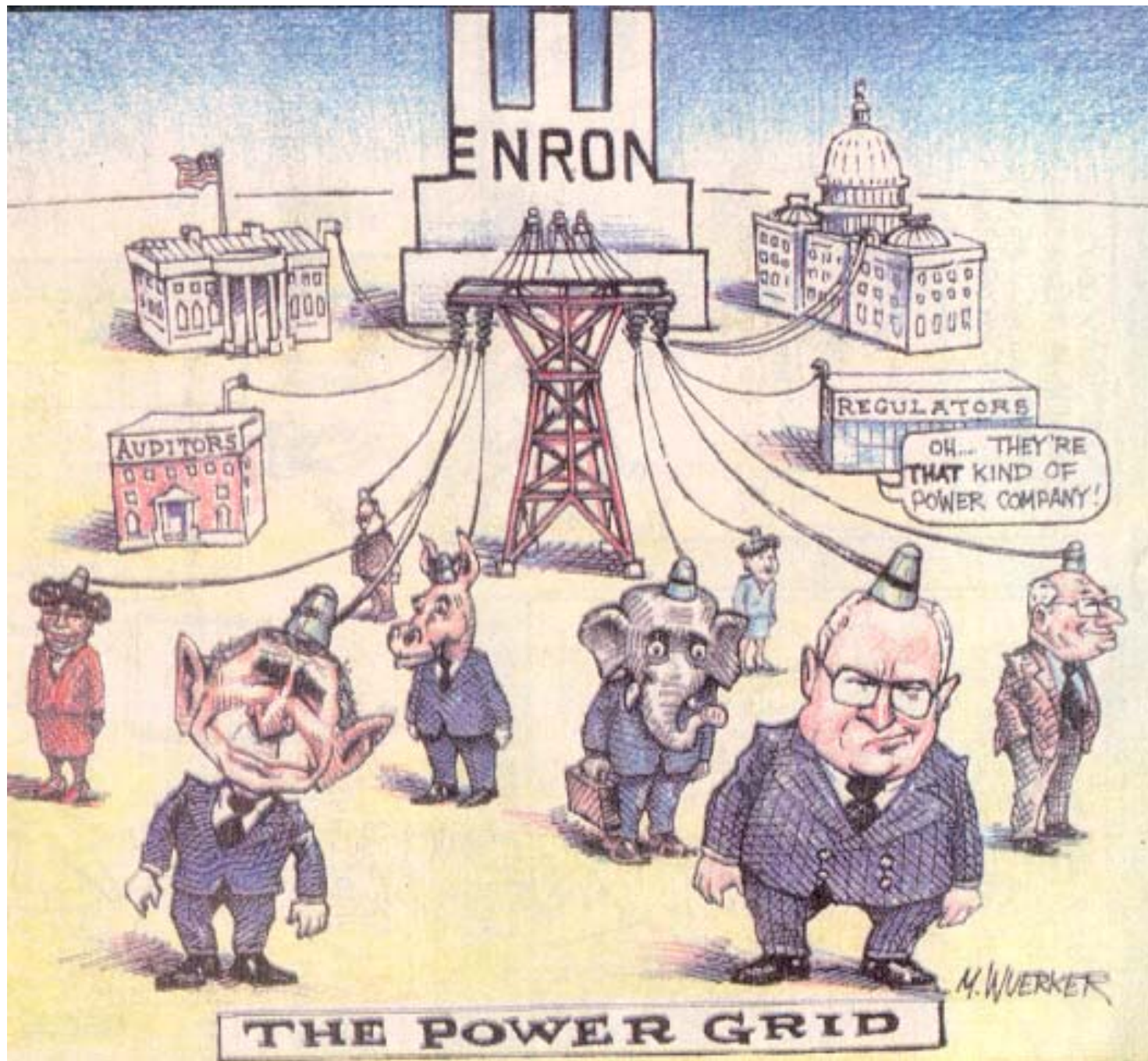
<sup>1</sup> The "real-time" energy market is also known as the imbalance energy market. The imbalance energy market can be further subdivided into the (1) supplemental energy or instructed deviation market and (2) the ex post market or uninstructed deviation market.



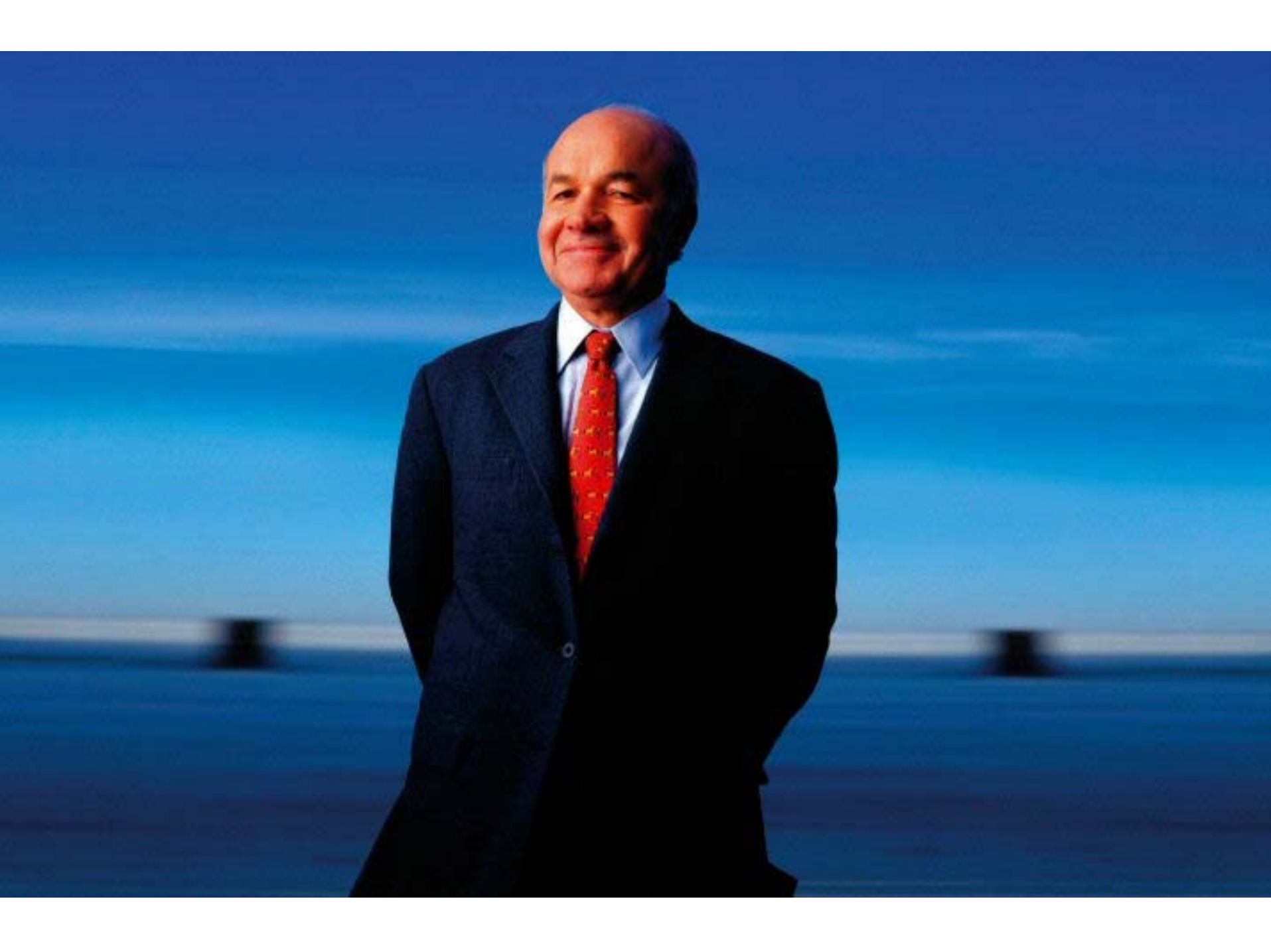
# Trading Strategies

- *Death Star*
- *Get Shorty*
- *Ricochet*
- *Wheel Out*
- *Fat Boy*





**THE POWER GRID**



# Enron Helped Push Electric Deregulation

Wednesday, February 13, 2002

Enron has been among the most active players in state politics in recent years, lavishing over \$1 million on state lawmakers during the 2000 election cycle alone. Its goal in doling out these dollars? Deregulation of electricity markets, experts say. . . .

In 1998 and 2000, Enron gave money to more candidates in Florida and Oregon than in any other state, even electricity giant California and Enron's home state of Texas . . . . Eighty-seven Oregon lawmakers shared \$74,719 in Enron money in 1998, surpassed only by the 102 Florida lawmakers who split \$80,500 of Enron's money in 2000.

But in neither state was Enron successful in getting its way. . . .

Enron worked the system in Oregon from the inside, purchasing local power company Portland General Electric Co. in 1997. Shortly after the purchase, PGE proposed that it be allowed to bring competition to its 650,000 customers by selling its power generating assets and instead distributing electricity from other suppliers, including its parent company, Enron.

Cheered on by consumer and environmental groups, the Public Utility Commission rejected this proposal in early 1999, opting for a more gradual approach to deregulation. The PUC eventually approved limited markets for residential customers, giving them a portfolio of three pricing structures from which to choose, and open markets for industrial customers.

"What we're doing is a lot different than a lot of other states," said Commissioner Joan Smith of the PUC. "Market access only applies to very large customers."

By Jason White, Staff Writer

# FERC's Mandate: The Federal Power Act

Section 844d(a) of the Federal Power Act states:

All rates and charges made, demanded, or received by any public utility for or in connection with the transmission or sale of electric energy subject to the jurisdiction of the Commission, and all rules and regulations affecting or pertaining to such rates or charges shall be *just and reasonable*, and any such rate or charge that is not just and reasonable is hereby declared to be unlawful.



**Dec. 13, 2000 -- U.S. Energy Secretary Bill Richardson called on out-of-state power suppliers to sell electricity to California at "just and reasonable" rates.**

**Dec. 15, 2000 – FERC issues order approving a flexible rate cap plan – allows utilities to charge more. Gov. Davis requested a cap on wholesale rates.**

**Dec. 26, 2000 – SoCal sues FERC for not ensuring reasonable wholesale rates. Jan. 2001 Davis files Amicus brief.**

**Jan. 4, 2001 – PUC approves emergency rate hike for PG&E and SoCal Edison to help avoid bankruptcy.**

**Jan. 17-18, 2001 – ISO rolling blackouts. Department of Water Resources (DWR) granted authority to buy power.**

**Jan. 19, 2001 – Legislation to spend \$400 million buying power for PG&E and Cal Edison to help avoid bankruptcy. Feb. 1 -- \$10 million more. State spending \$40 - 50 million a day buying power.**

**Feb. 6, 2001 – Bush lets federal emergency order expire.**

**March 1, 2001 – ISO asks FERC to investigate excessive charges by providers.**

**March 16, 2001 -- Energy Secretary Spencer Abraham reiterates the Bush administration's opposition to price caps on wholesale electricity prices.**

**March 19-20, 2001 – First statewide rolling blackouts. Unexpected closures of several generators.**

**April 6, 2001 – PG&E files for bankruptcy.**

**April 10, 2001 – Gov. Davis again asks FERC for wholesale rate cap.**

**April 25, 2001 – FERC issues order allowing for wholesale price caps under certain emergency conditions.**

**June 19, 2001 – FERC issues price mitigation plans for western region which would prevent “megawatt laundering.”**

**September  
20, 2001  
PUC  
suspended  
retail  
competition**



## **EWEB settles power sales suit**

By Jeff Wright The Register-Guard

Published: January 3, 2008

A long and complex legal morass may have ended Wednesday when the Eugene Water & Electric Board approved a settlement with California agencies over the sale of surplus electrical power during the West Coast energy crisis of 2001.

Under terms of the agreement, EWEB admits no wrongdoing but nonetheless will pay \$1.9 million to the California Department of Water Resources. . . .

The settlement resolves a series of lawsuits and countersuits between EWEB and several California agencies that contended that EWEB sold power at unfair prices.

Dick Helgeson, EWEB's power resources director, said EWEB emphatically denies such allegations.

The Federal Energy Regulatory Commission, he said, already has ruled that EWEB's power sales during the energy crisis "were appropriate, honest and aboveboard and, in fact, helped California in a time of crisis." . . .

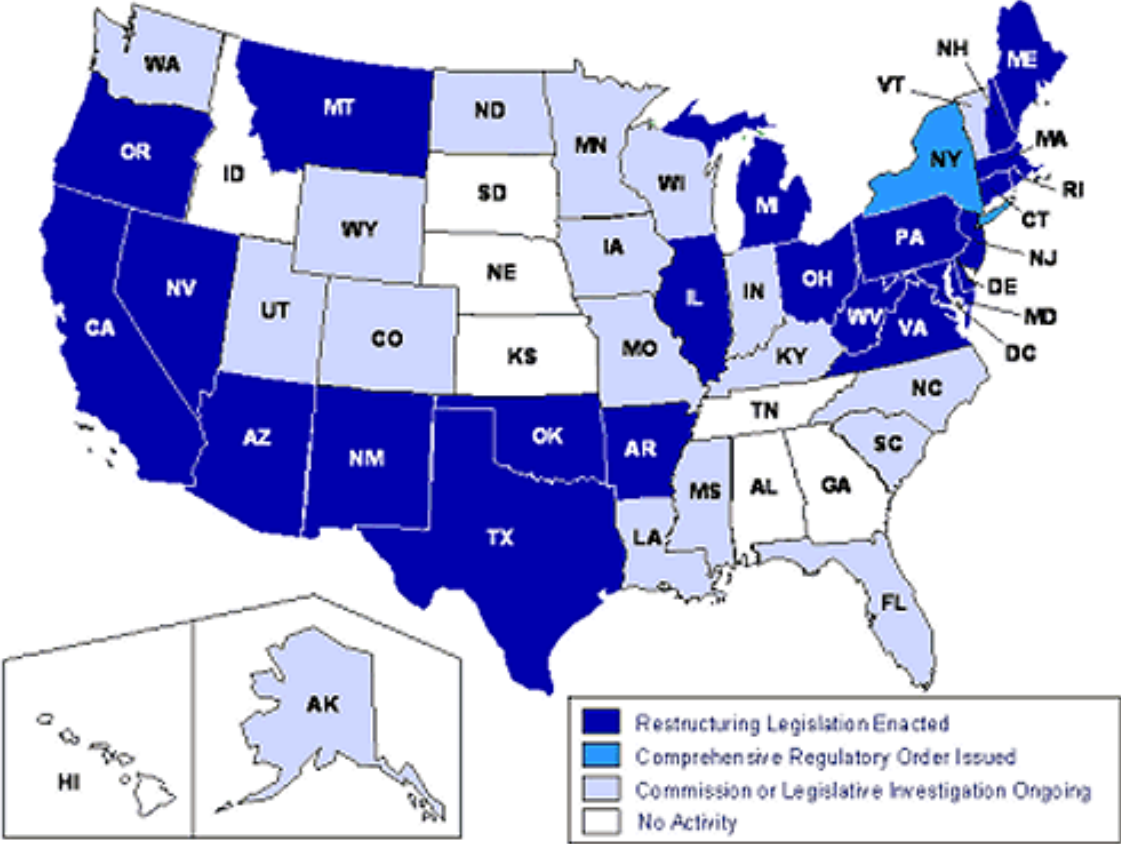
During the 2001 energy crisis, which resulted in "brownouts" and skyrocketing wholesale power prices, California's water department purchased from EWEB nearly \$100 million worth of power. EWEB officials noted that EWEB sold the power at California's request, and that California has taken similar legal action against nearly every utility from which it purchased power during the crisis.

EWEB and its customers were as much a victim as the state of California when energy trading companies manipulated prices in California's de-regulated the industry in 2000 and 2001, EWEB spokesman Lance Robertson said.

EWEB approved electrical rate increases exceeding 40 percent in 2001, and added a surcharge in 2002 after the utility's reserves were exhausted and it had to borrow nearly \$30 million to meet its own customers' power needs. . . .

"If it hadn't been for the power that we and other Northwest utilities provided, California would have been in the dark," he said. "It's too bad it's kind of come back to haunt us. Needless to say, we don't sell power to the California Department of Water Resources anymore."

# State Status of Restructuring as of February 2001





# Oregon Electricity Restructuring

- By March 1, 2002, Portland General Electric (PGE) and PacifiCorp must provide their customers:
  - **Direct access** for nonresidential customers,
  - A **portfolio of options** (such as market-based and green rates) for residential customers,
  - A cost-of-service rate option for all customers
  - Default service for nonresidential customers.
- Once they begin offering direct access, PGE and PacifiCorp shall collect a three percent charge to fund various public purposes.
- PGE and PacifiCorp shall collect \$5 million on an annual basis for low-income bill payment assistance beginning January 1, 2000, increasing to \$10 million annually on October 1, 2001.

**Key Provisions of SB 1149 (as amended by HB 3633) (2001)**

# OR PUC

- Ensure that direct access does not cause unwarranted cost shifting
- Determine transition charges or credits
- Develop policies to eliminate barriers to the development of a competitive retail market
- Certify electricity service suppliers and establish other consumer protections
- Adopt various rules necessary to implement the Act

**SB 1149 (as amended by HB 3633)**

# Consumer-owned utilities

A consumer-owned utility (a municipal utility, cooperative, or PUD) can decide whether and under what terms and conditions it will offer its customers direct access or portfolio options. Once a consumer-owned utility offers direct access, it shall collect from eligible customers a public purposes charge