



The Case of the Missing Crisis

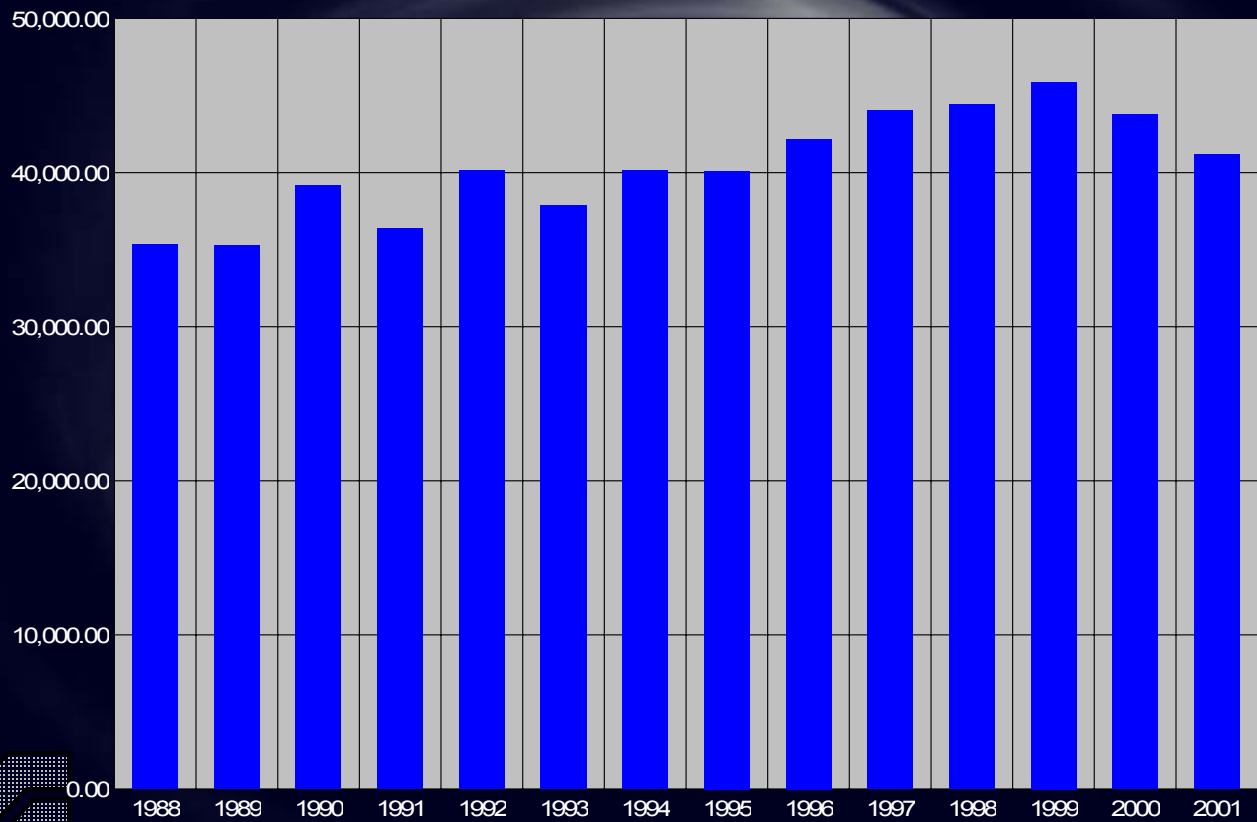
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Managing Partner
McCullough Research
October 24, 2001

The Case of the Missing Crisis

- Bottom Line
- A Little Background
- AB-1890
- Collusion?
- Market and Regulatory Response
- Policy Implications

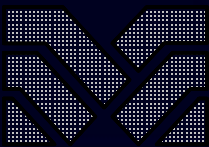


ISO Peak Loads



Bottom Line

- Since April Fool's Day in 1998 we have seen an unparalleled governmental intervention in West Coast power markets -- often in the name of "deregulation"
- In California, decentralized open markets were replaced by centrally directed administered markets
- BPA has attempted -- and succeeded -- in reducing market options
- FERC, first clumsily, and finally, effectively, has had price controls in place for the last



A Little Background

- History
- Geography



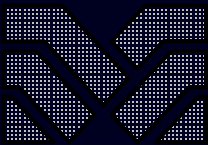
The Robber Barons



JP Morgan



Samuel Insull



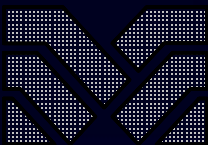
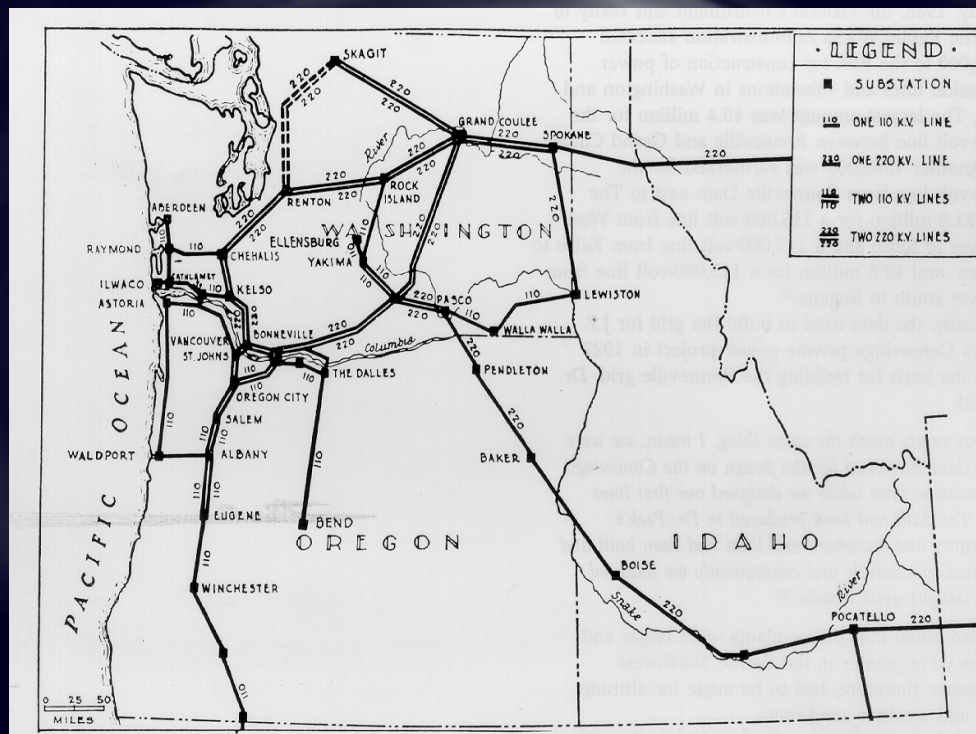
**There were a few ups and
downs**



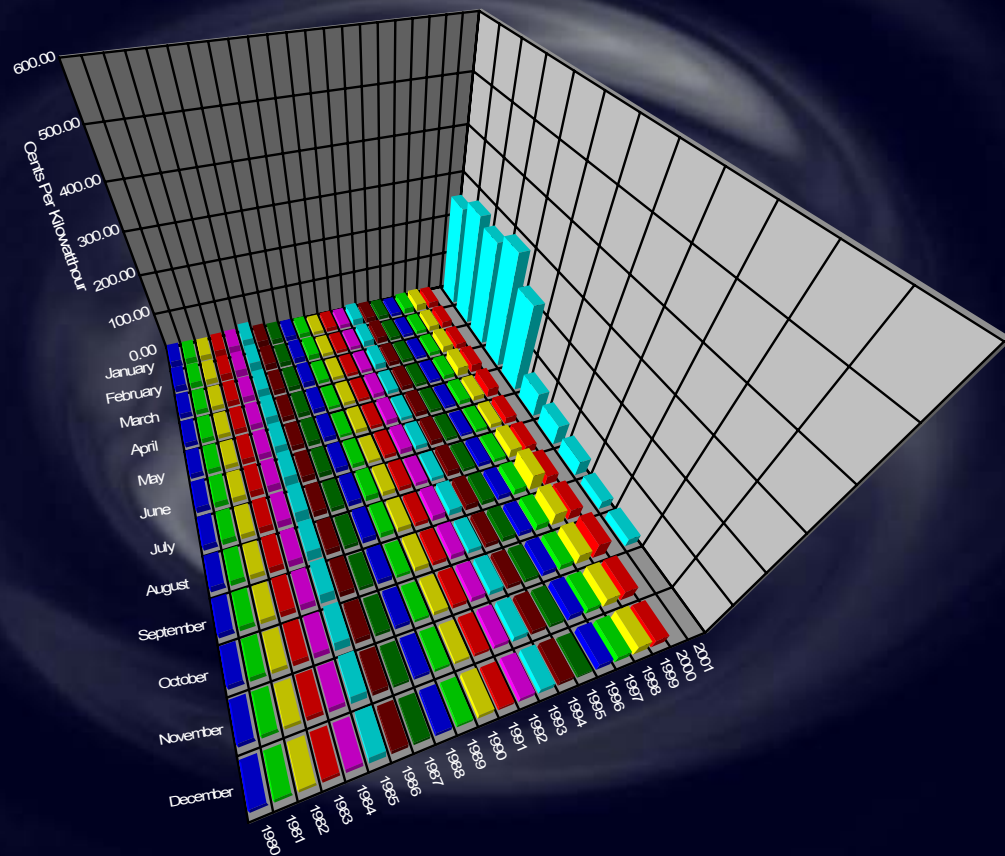
Roosevelt steps in



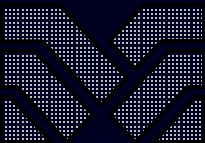
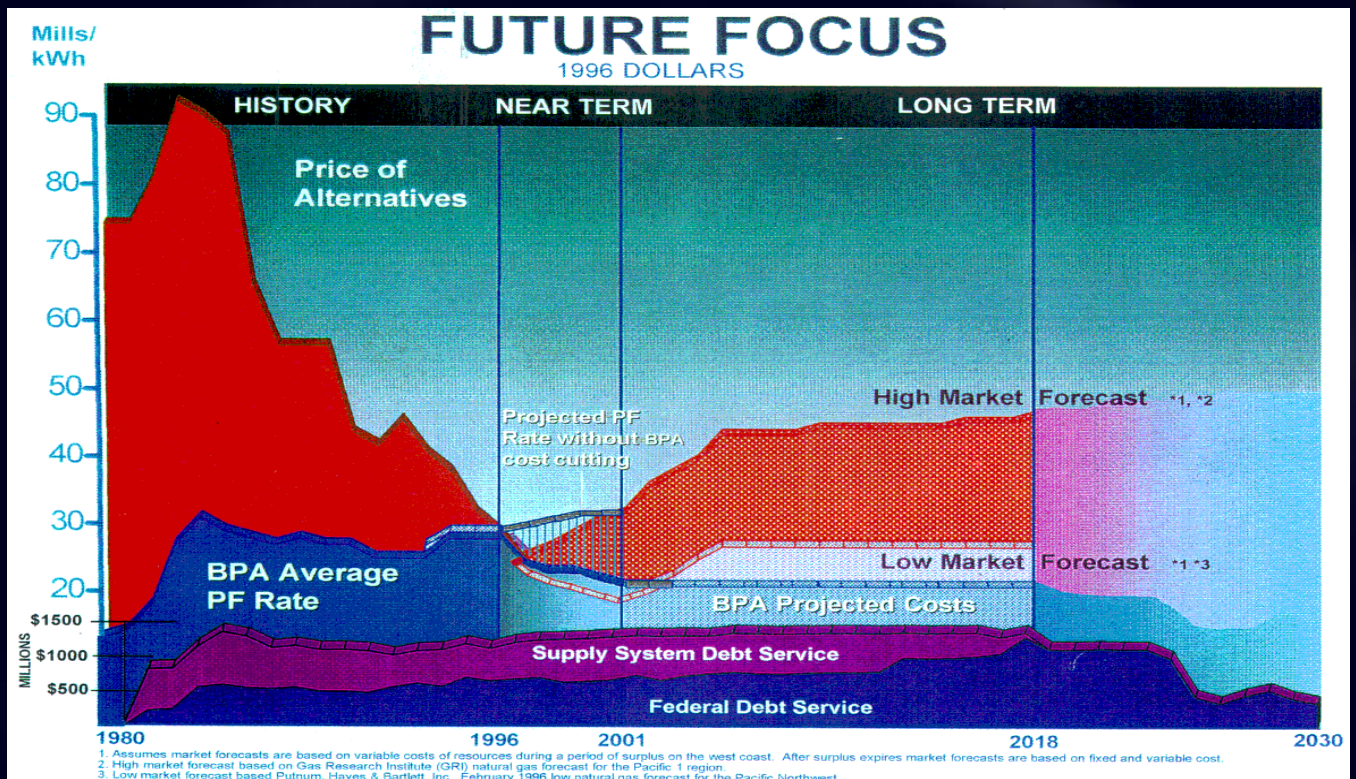
J.D. Ross Master Plan



Twenty Years



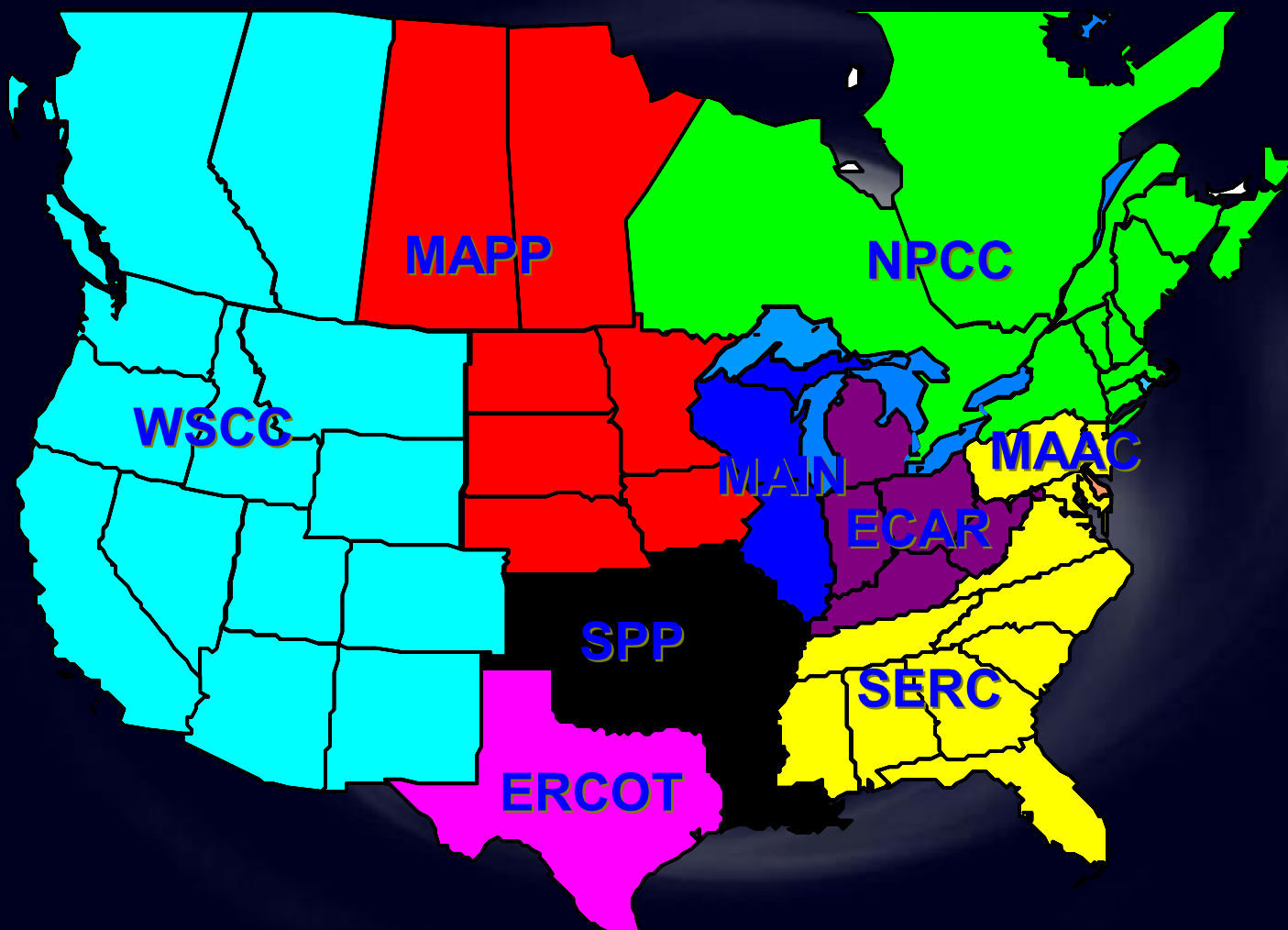
BPA's Past and Future



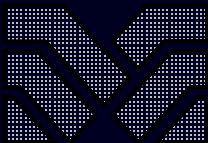
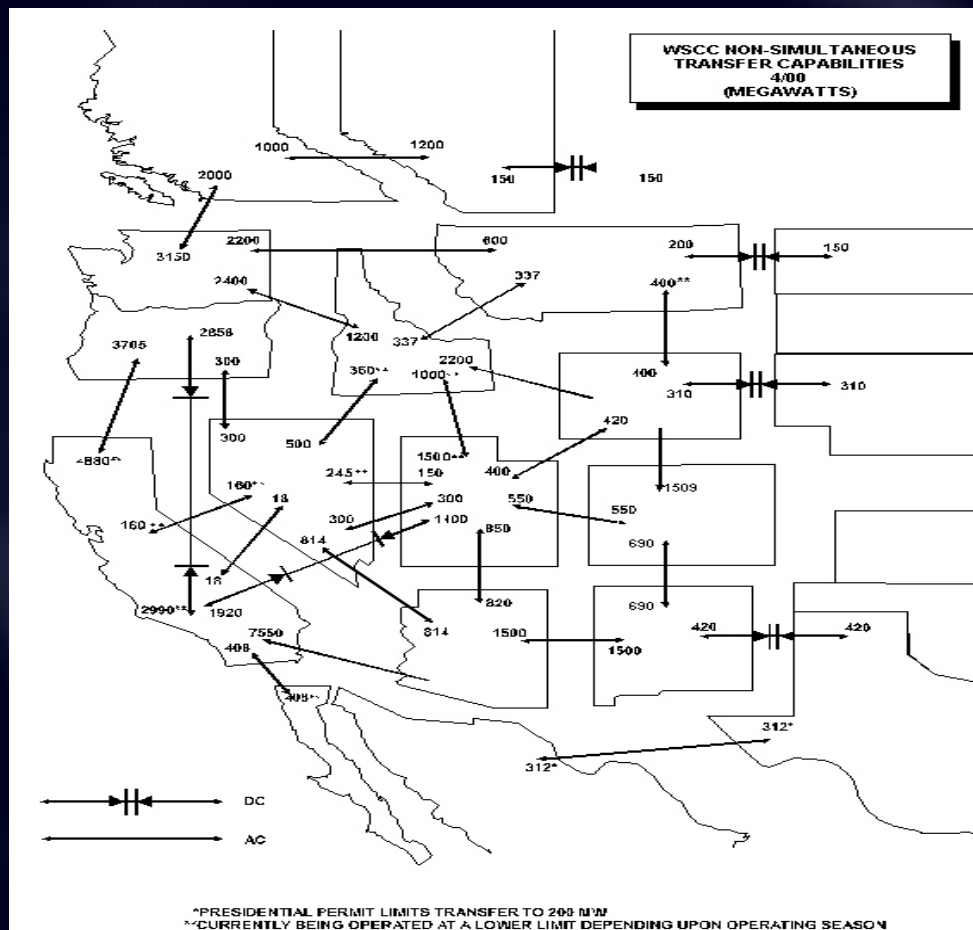
Where are we?

- The west coast of the U.S. and Canada is a single integrated electric market
- Prices in California this summer have driven prices from Edmonton to Tijuana
- California driven price increases have made transmission costs insignificant by comparison





West Coast

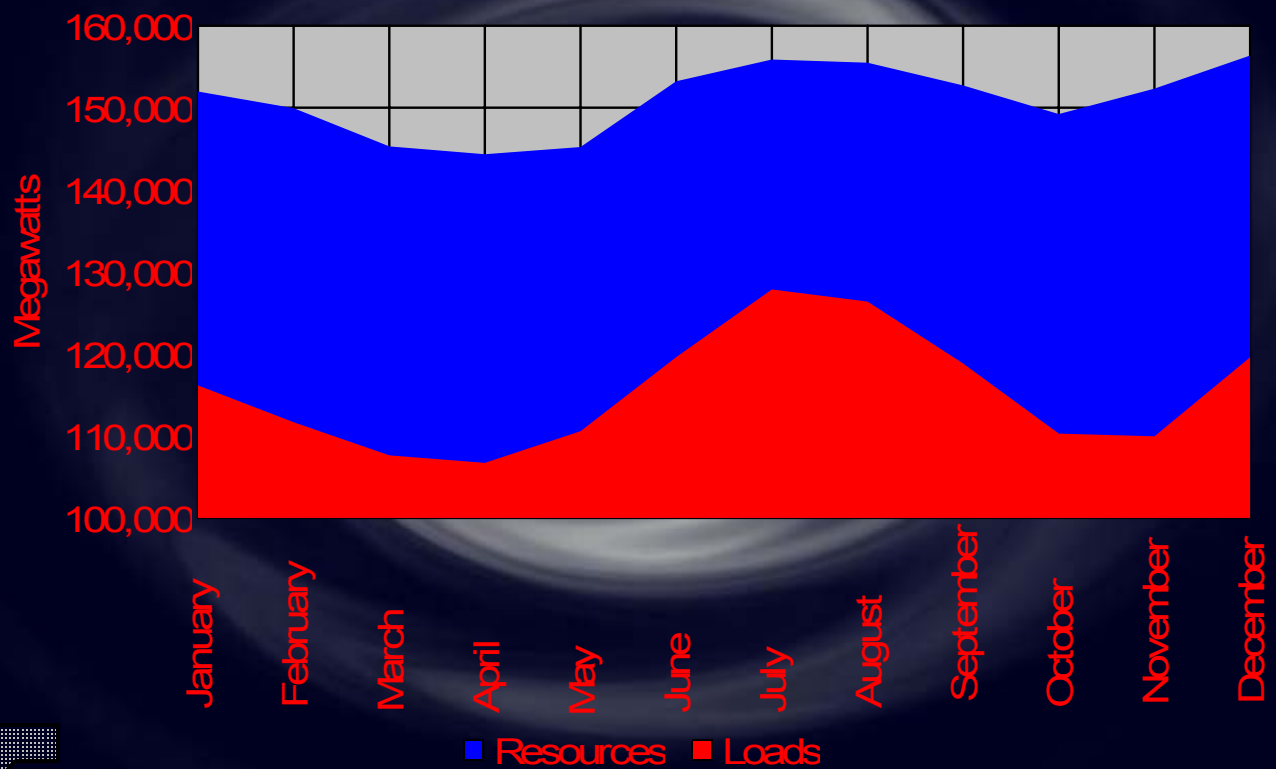


How does all this fit together?

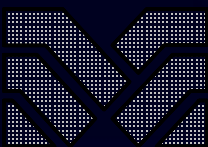
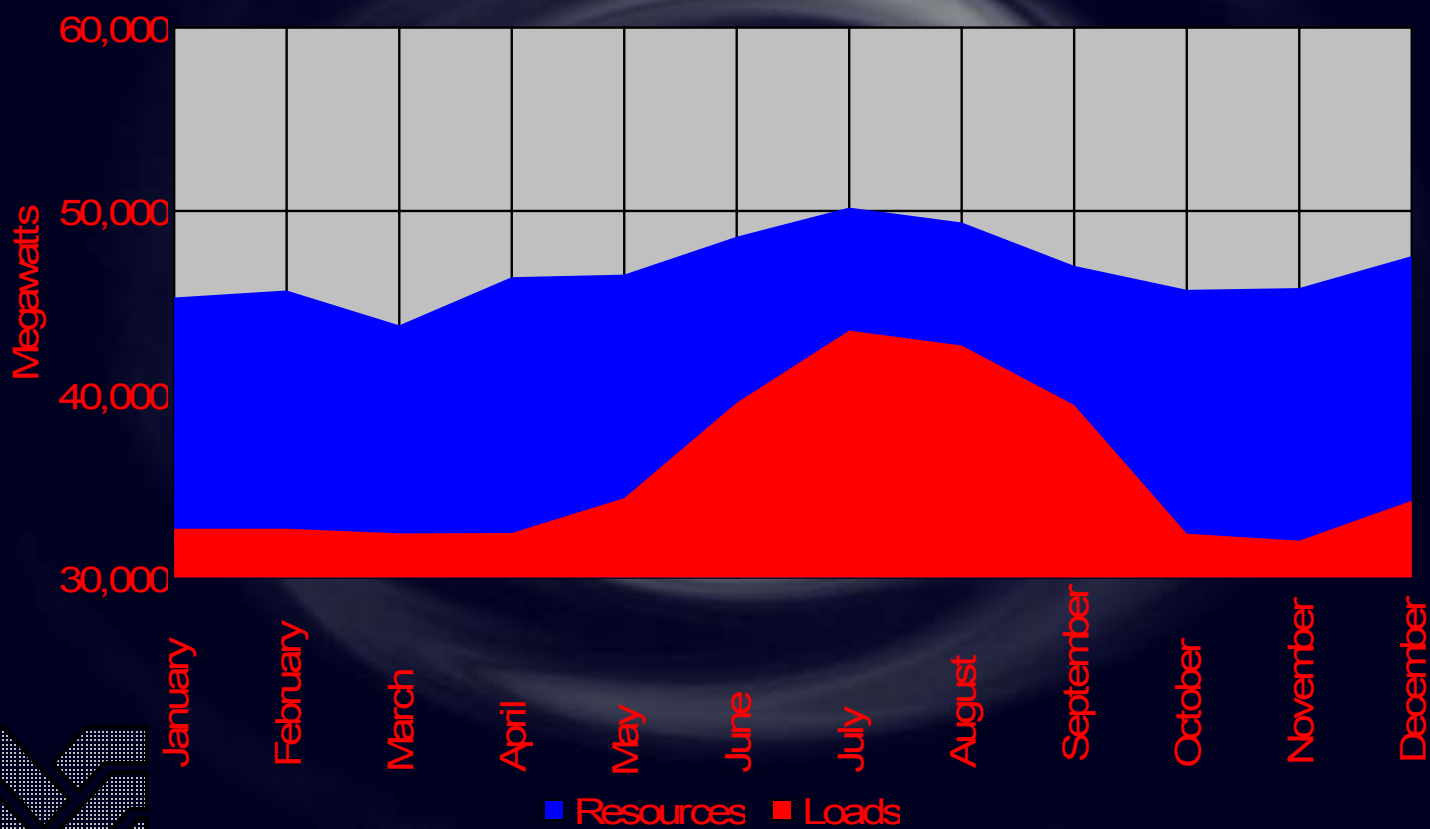
- California imports power in the summer
- The Pacific Northwest imports power in the summer
- Overall, the capacity surplus is large
- Energy surplus floats with regional hydro



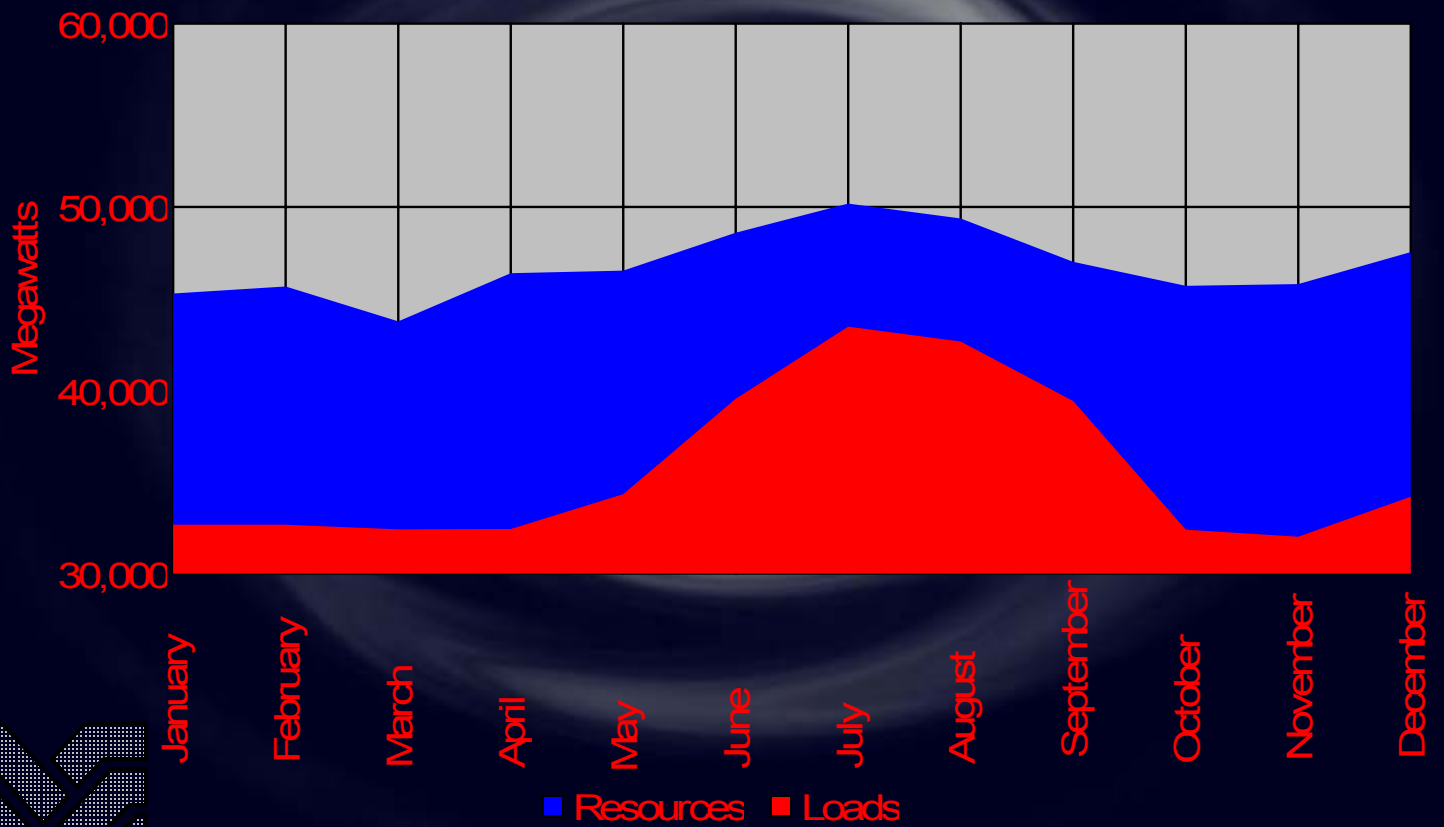
WSCC Capacity Balance



California Capacity Balance

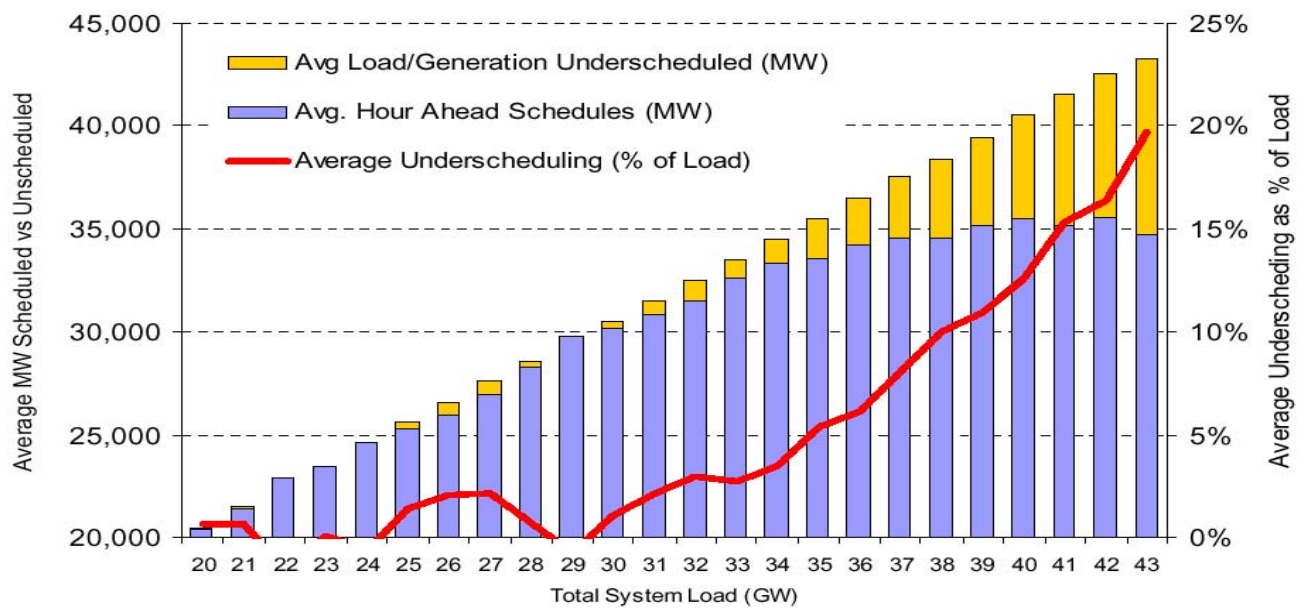


ISO Capacity Balance



Undergeneration

Figure 13. Average Underscheduling of Loads and Generation by System Load Level (June, 2000)



Report on California Energy Market Issues and Performance: May-June, 2000

AB 1890

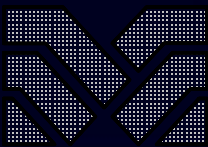
- Senator Peace's brilliant compromise
- May a hundred provisions bloom, may a hundred agencies contend
- Purportedly the creation of competition, the law brought into place one of the most comprehensive interventions of government into business in U.S. history



California's System



Prices



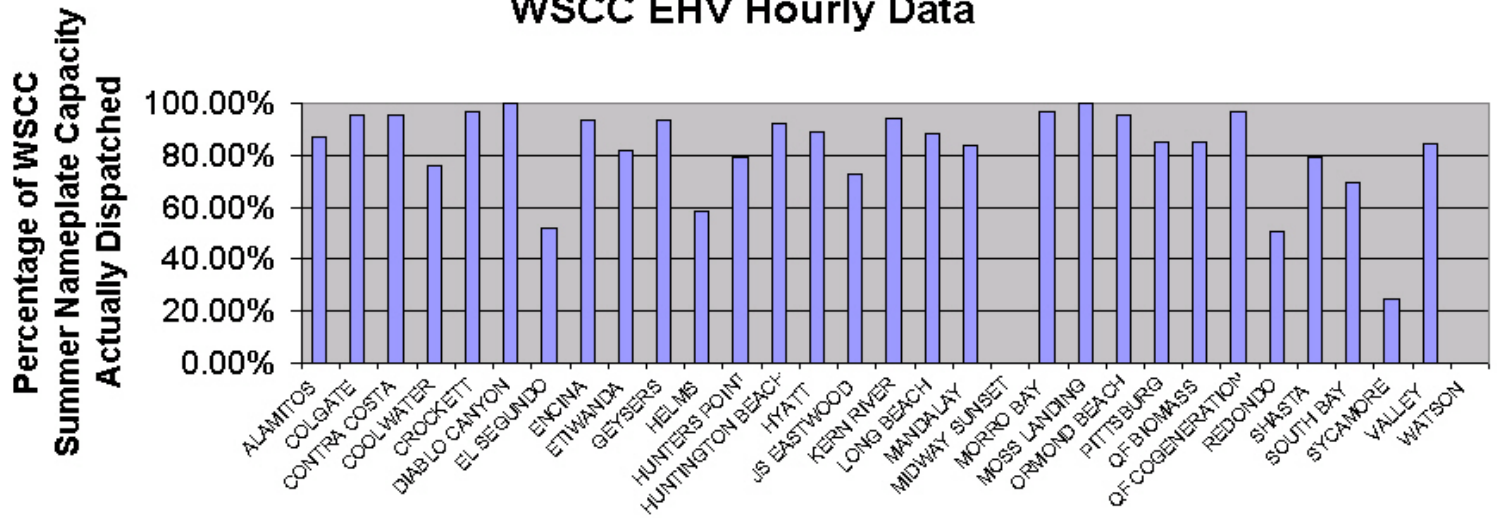
Collusion?

- Collusion remains unproved, but the investigations are ongoing
- Substantial evidence exists of market sharing agreements



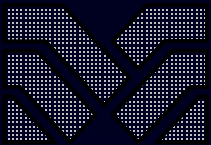
An ISO Emergency

July 24, 2000 ISO Emergency
WSCC EHV Hourly Data

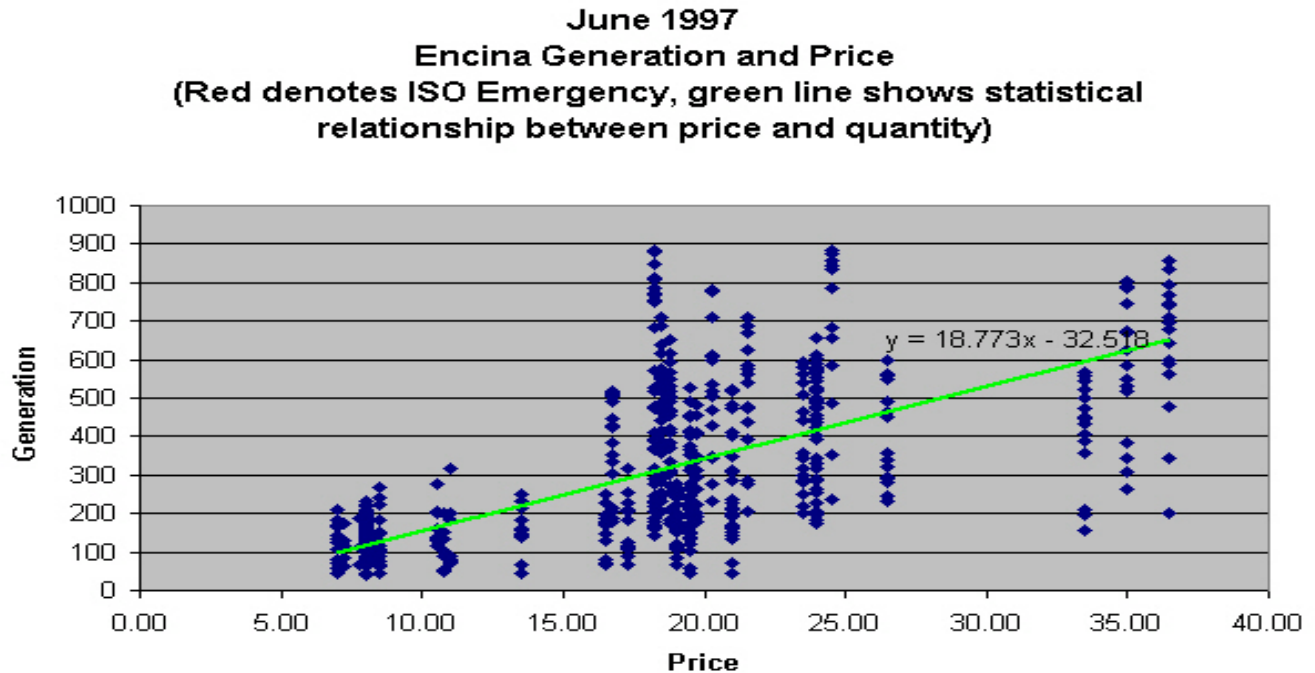


Inefficient Peak Dispatch

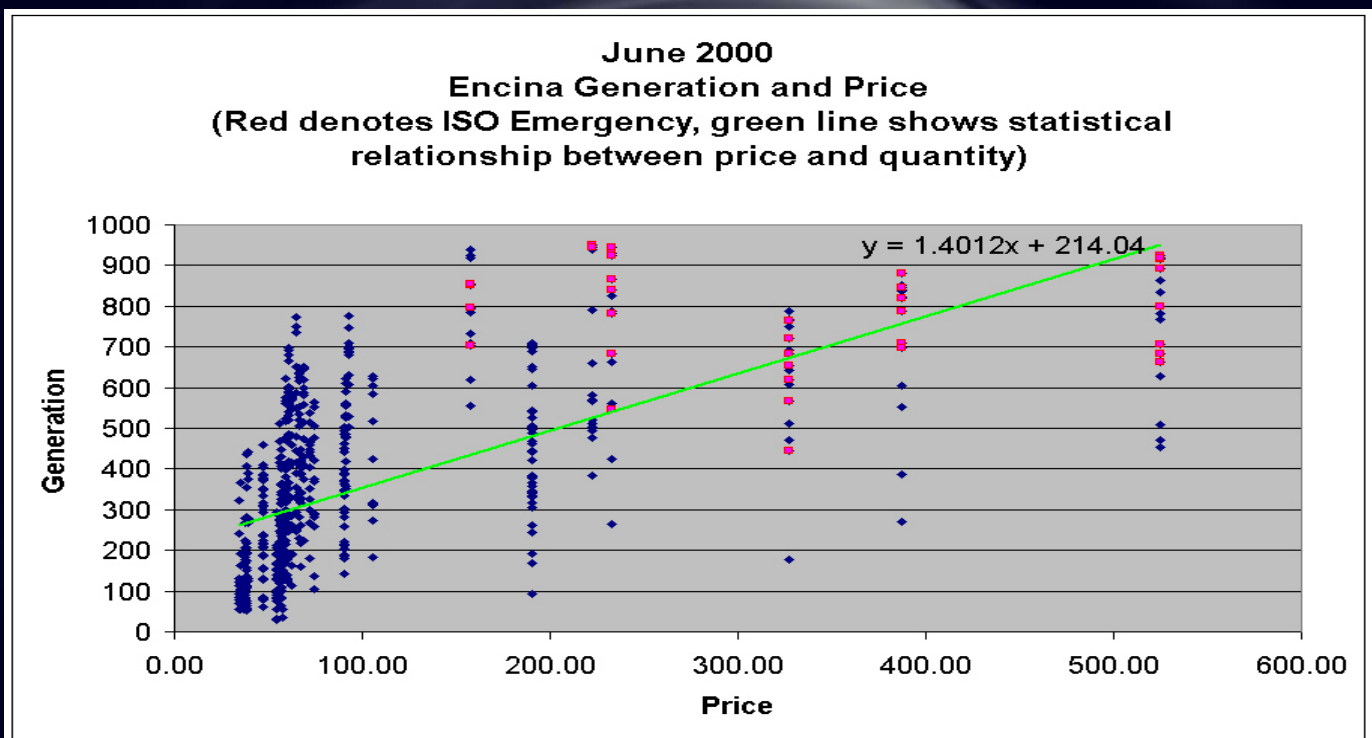
- ISO plants dispatch erratically
- Although total capacity equals nameplate, actual dispatch averages only 50% of nameplate
- ISO dispatch doesn't even approach nameplate during system peaks



June 1999: Encina Generation and Price



June 2000: Encina Generation and Price



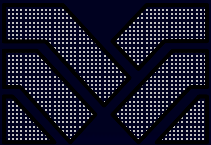
Colusion? Very Possibly.

- It now costs the market 13 times as much to raise generation levels as it did in 1997
- Substantial evidence exists for signaling -- change production levels to check the responses of other generators
- Replacing the internet with major generating units as "tom-toms"

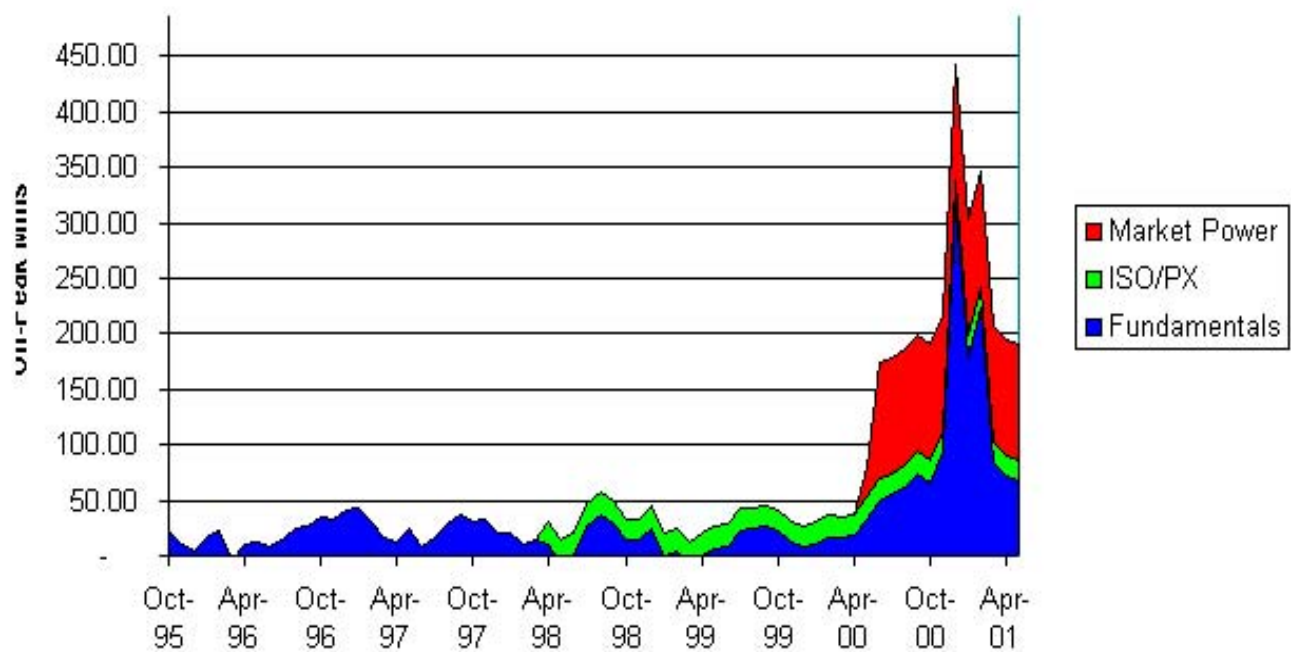


Optimal Dispatch: June 2000

- Encina 180%
- South Bay 164%
- Hermiston 100%
- Gadsby 120%
- Naughton 101%



On-Peak Impacts



Calculated Refunds

- On-Peak: 99.4 mills +/- 13.4 Mills
- Off-Peak: 32.6 mills +/- 8.4 Mills
- Refunds appropriate from May 22nd through July 31st
- Additional data will continue to refine estimates on a month by month basis

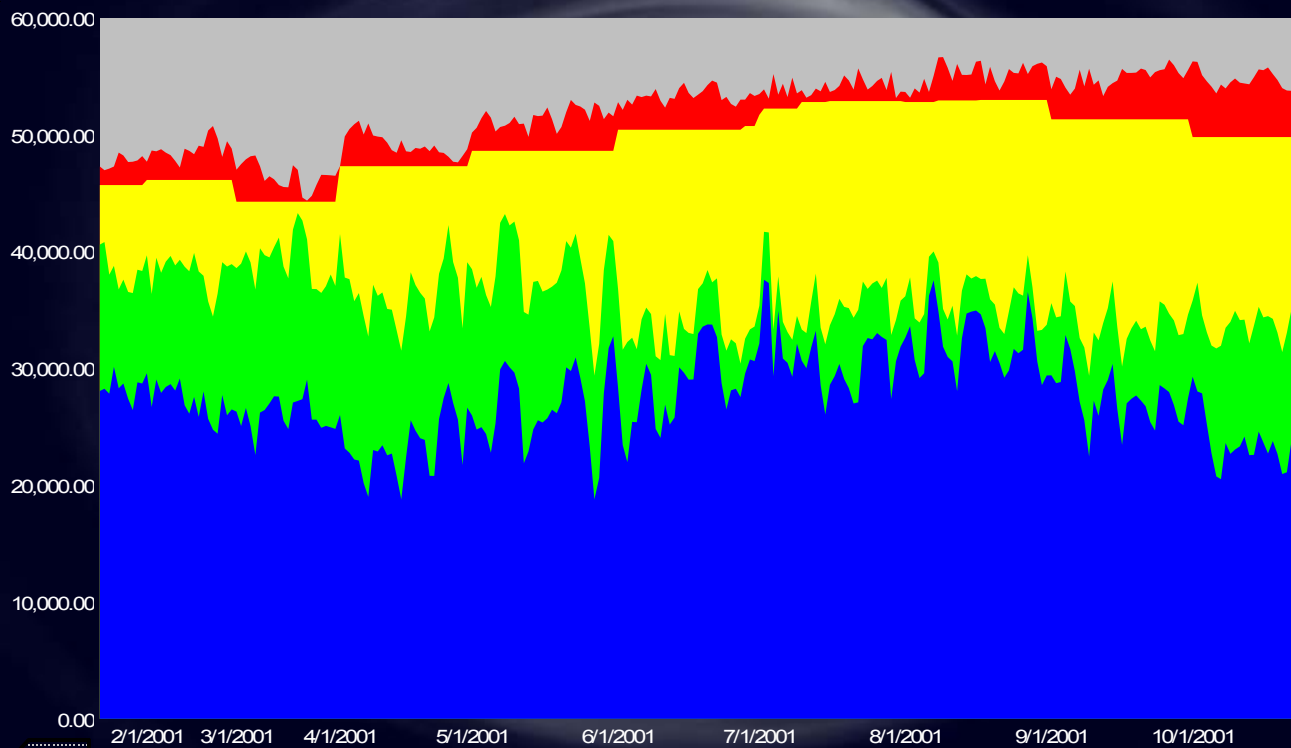


Market and Regulatory Response

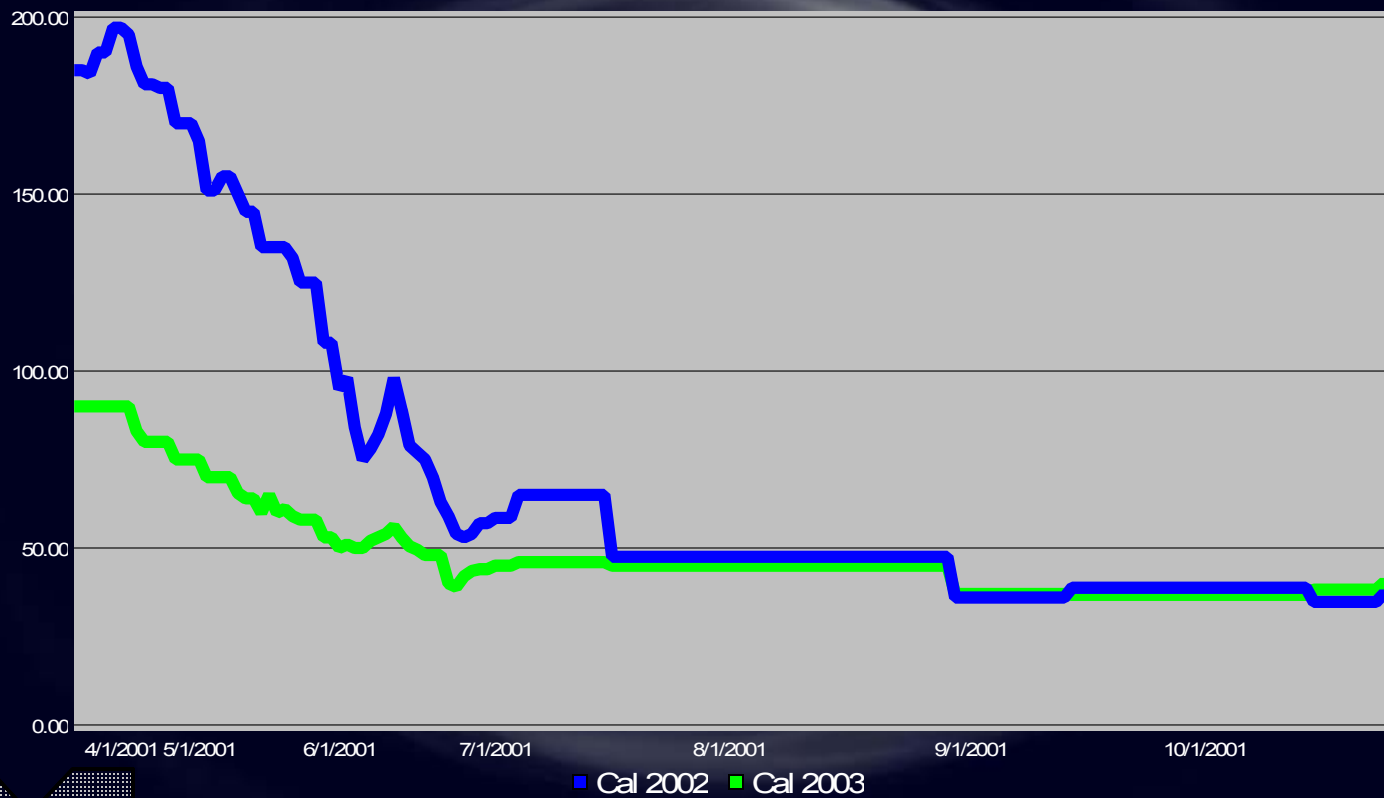
- FERC imposed working price controls on April 16th
- Outages promptly fell to historical levels
- Futures prices went back to historical levels -- even for periods beyond the price controls



Actual ISO Operations



Futures Markets



Policy Implications

- Social engineering is very, very, very expensive
- Increasing governmental intervention is on the way

