

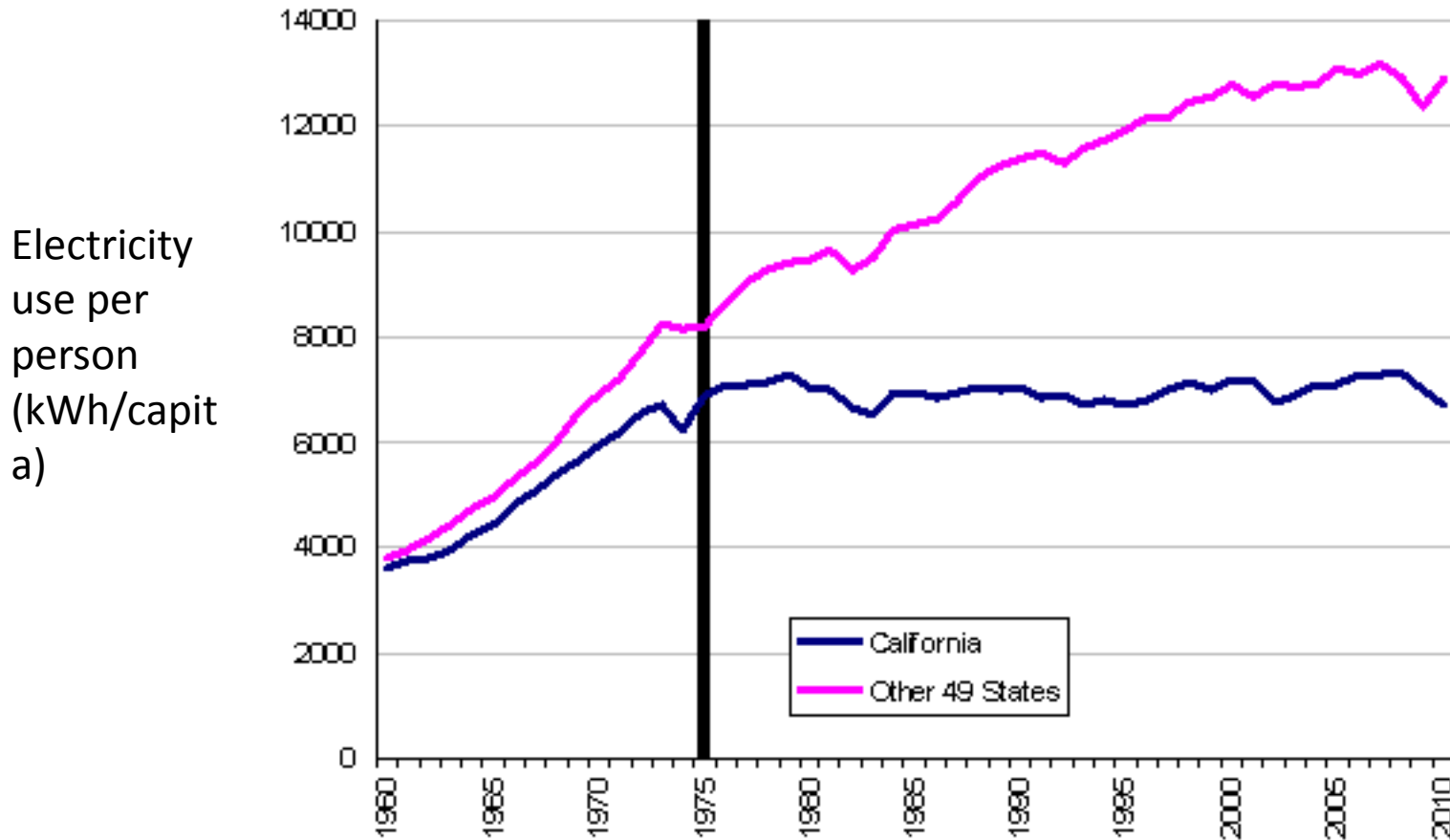
# How California Survived the 2001 Electricity Crisis: Shortfall Mitigation the California Way

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# Per-Capita Electricity Use, California vs the Other 49 States



The electricity use per person in California has not grown in 40 years!

# Many Causes for California Crisis

- Increased natural gas prices, reduced supply for power plants
- Market manipulation by major suppliers (Enron and others)
- Reduced hydroelectric supplies
- Increased electrical demand in neighboring states
- No new capacity added in California
- Other restrictions by federal agencies

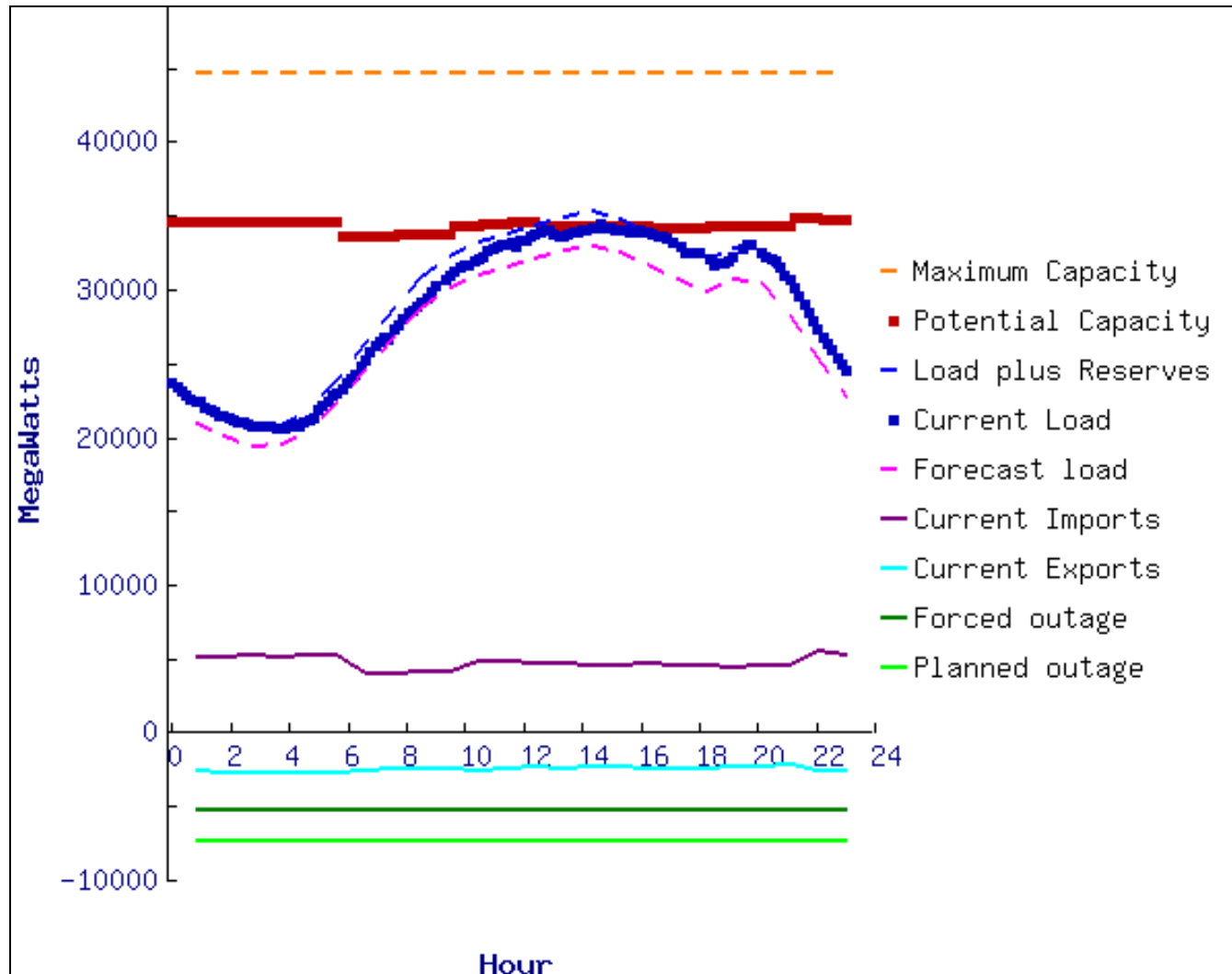
# People Blamed the Governor

- They also blamed the utilities, the regulatory authorities, Enron, and the federal government
- Blackouts, higher prices first appeared in 2000 in southern California
- Shortages appeared in non-peak periods due to market manipulation
- Was this problem caused by increased demand or decreased supply?



# A Blackout Shown in Real-Time

from [currentenergy.lbl.gov](http://currentenergy.lbl.gov)

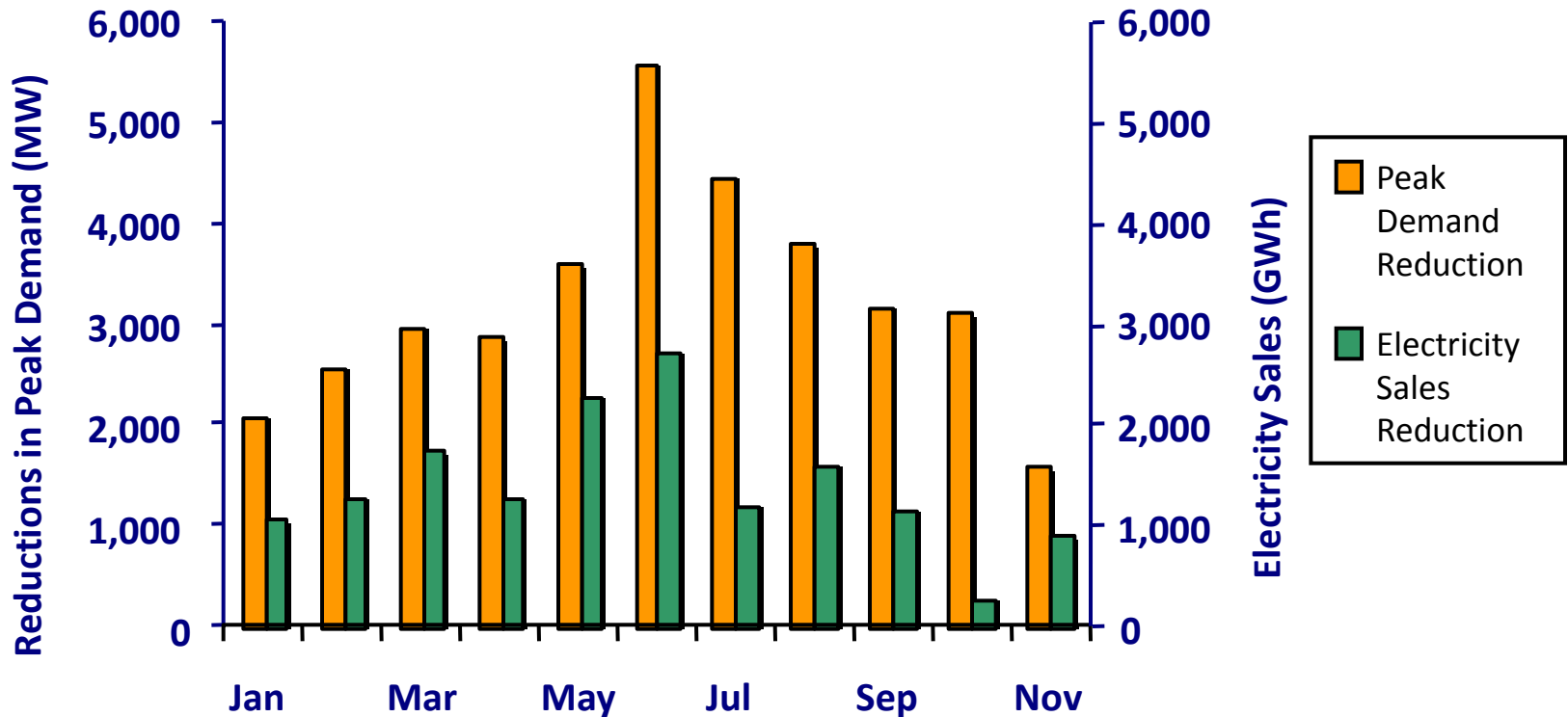


# Actions Taken to Reduce Demand

- Huge media campaign on TV, newspapers, radio
  - Switch off lights
  - Raise summer time temperatures in offices and homes
  - Switch off consumer electronics
- Statewide: “Flex your Power” education campaign
  - Explain to consumer the need to save peak power
  - Recommend specific conservation measures
- Rebates for electricity savings compared to previous year “20/20 program”
- Additional rebates for purchase of efficient lights & appliances
- Currentenergy site

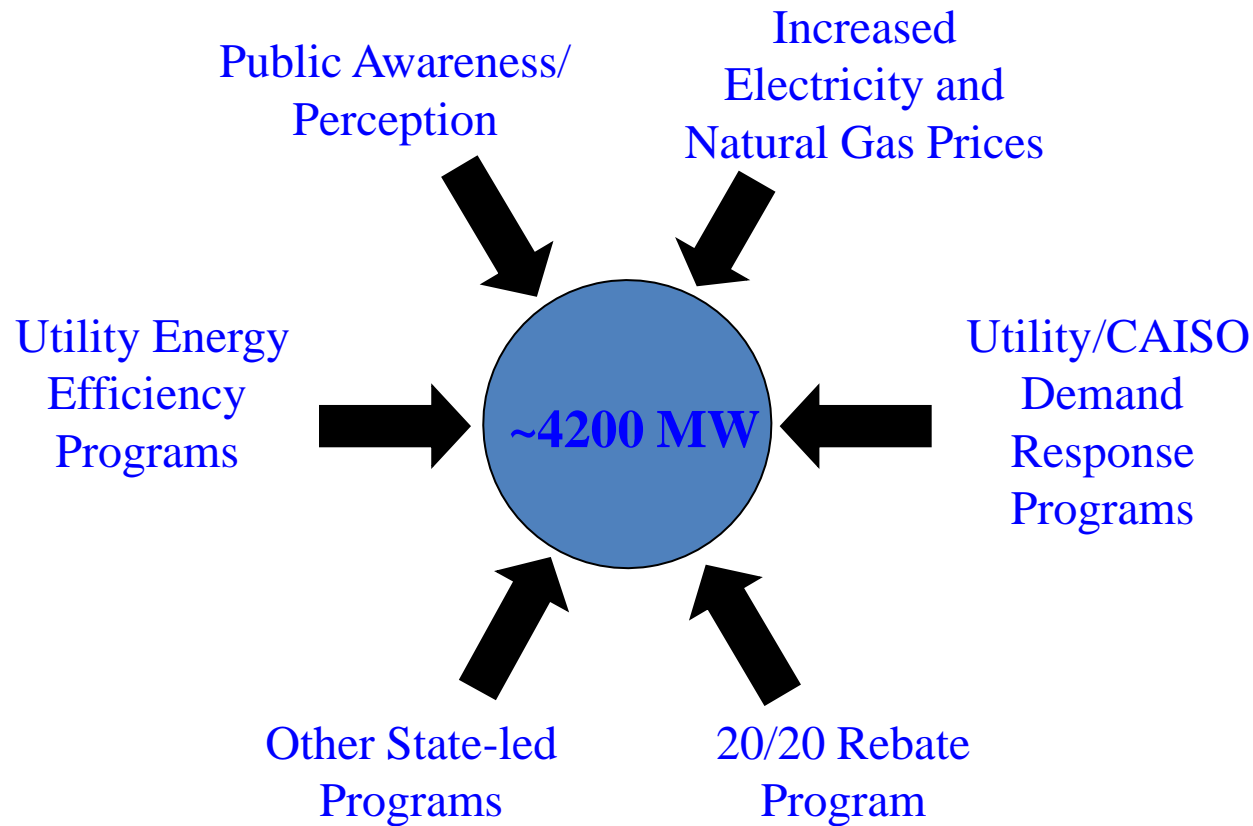


# Customer Load Reductions Rescued CA during 2001 Crisis



- 7% reduction in annual electricity sales; 10% average reduction in summer monthly peak demand
- Exact savings are difficult to estimate because weather and economic activity were different in the two years.

# Customer Load Reductions Rescued California during 2001 Crisis





# Results

- Electricity use fell ~ 7% but peak fell ~10%
- No blackouts!
  - Demand reductions avoided 10- 50 days of blackouts
- Economy was not seriously damaged
- Conservation continued after the crisis (~7% savings)
- The governor was replaced in a special election (very unusual)
- California's budget surplus vanished
- The major utilities went bankrupt
- Enron leaders went to jail
- De-regulation was reversed

End

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# Customer Load Reductions Rescued CA during 2001 Crisis

