

# Electricity in New England: Market Imperfections or Failure?

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# Expectations in 1997

“...abuse of market power in generation may become common and significant, both in local load pockets ... and broadly in the regional market.”

–Synapse Energy Economics, June, 1997, report for the New England Conference of Public Utility Commissioners.

# Expectations in 1997 (continued)

Simulation results show that NE market is concentrated, and that “optimal” pricing by generators will result in additional costs to consumers of about 30% (or nearly \$1 billion per year).

–Bruce speaking at NASUCA’s November, 1997, meeting in Boston.

# Is the NE Electricity Market Working?



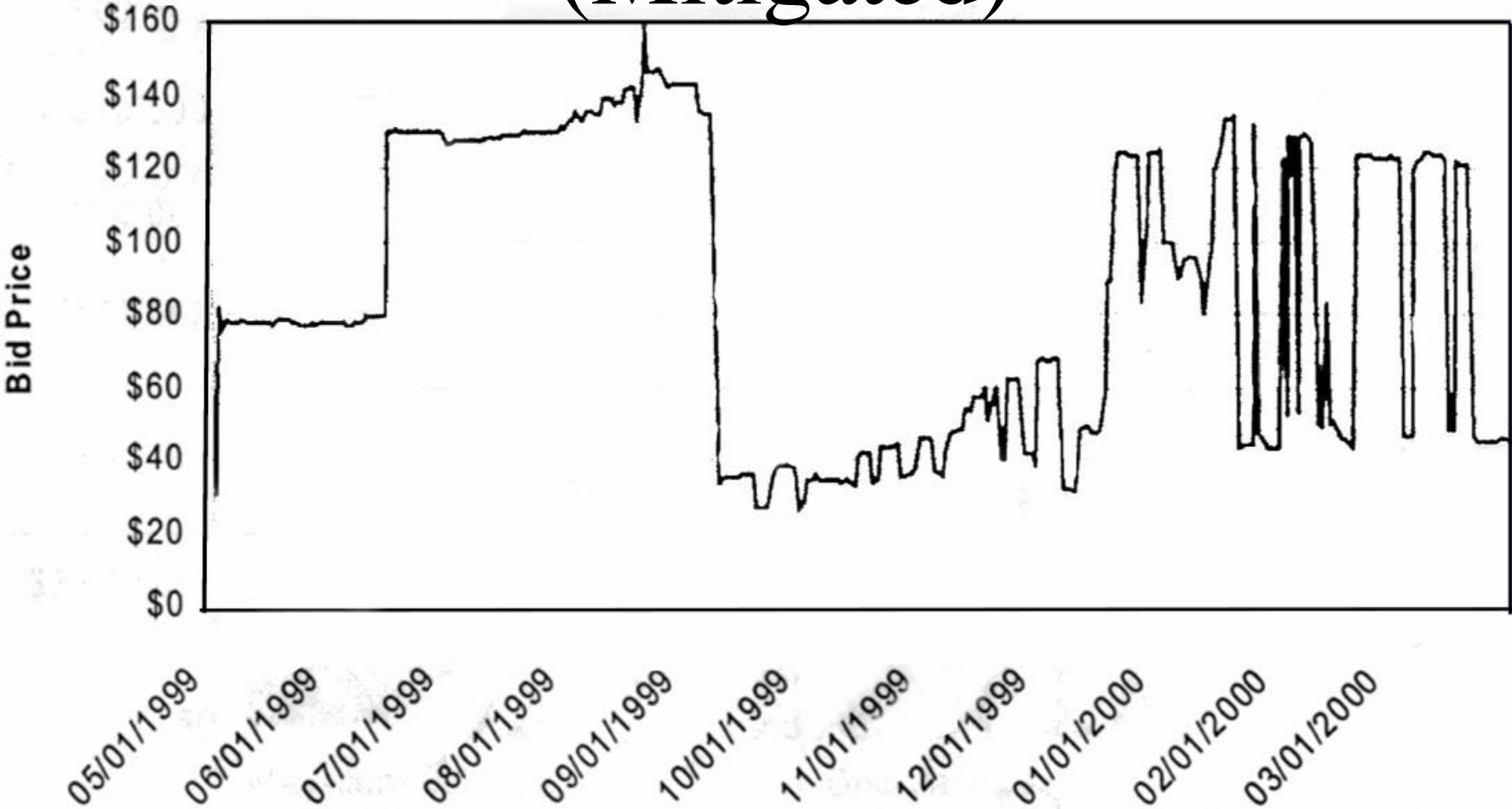
Market participants are price takers? No.

Generator bids are based on marginal costs? No.

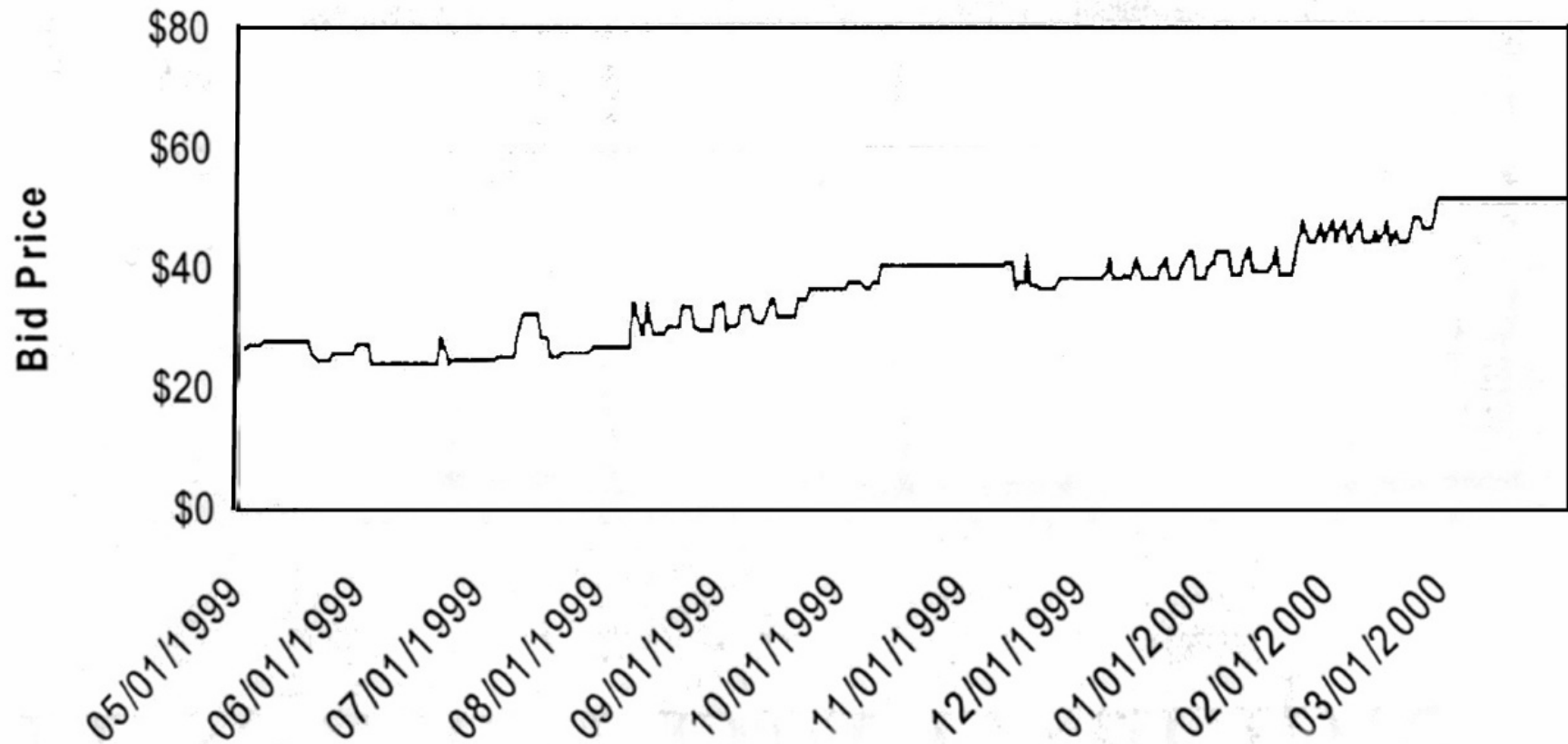
Adequate customer response to price spikes? No.

Prices support market entry? Yes.

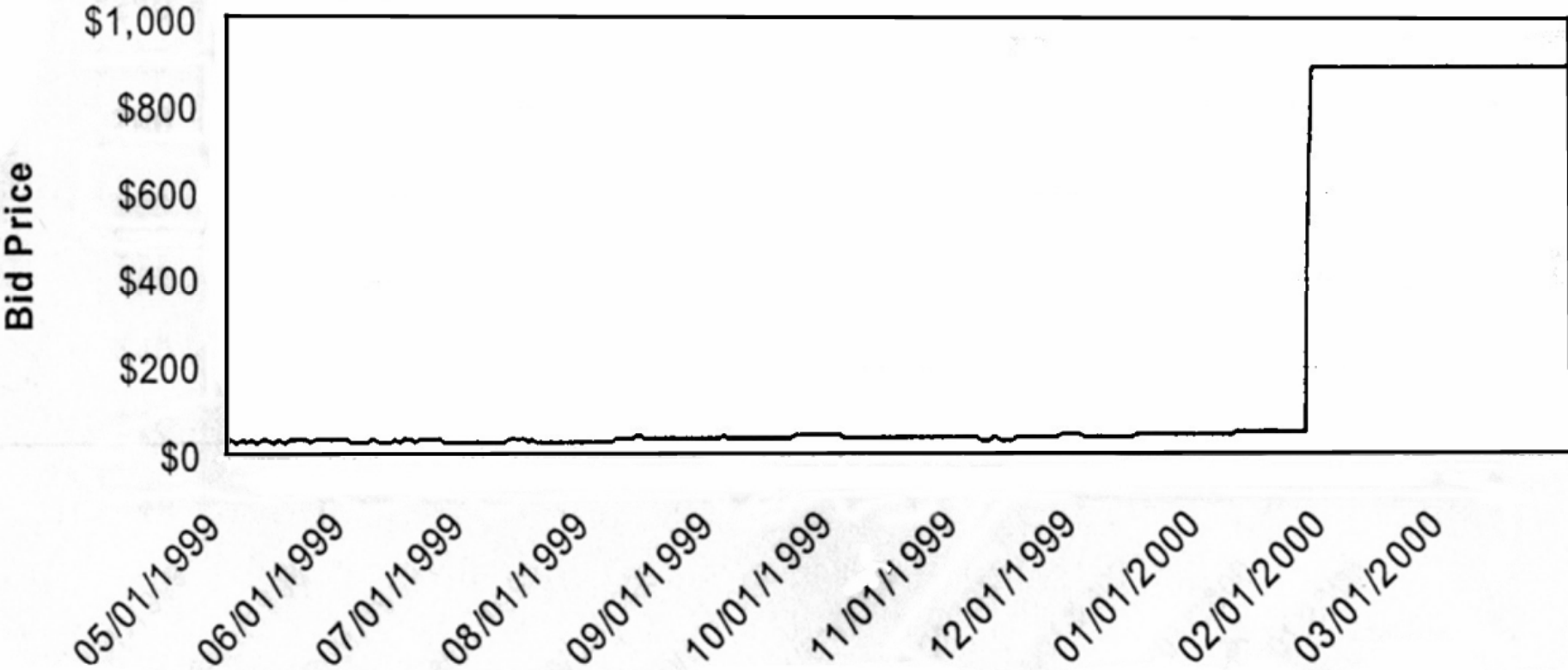
# Generator #1 Bids (Mitigated)



# Generator #2 Bids (Not Mitigated)

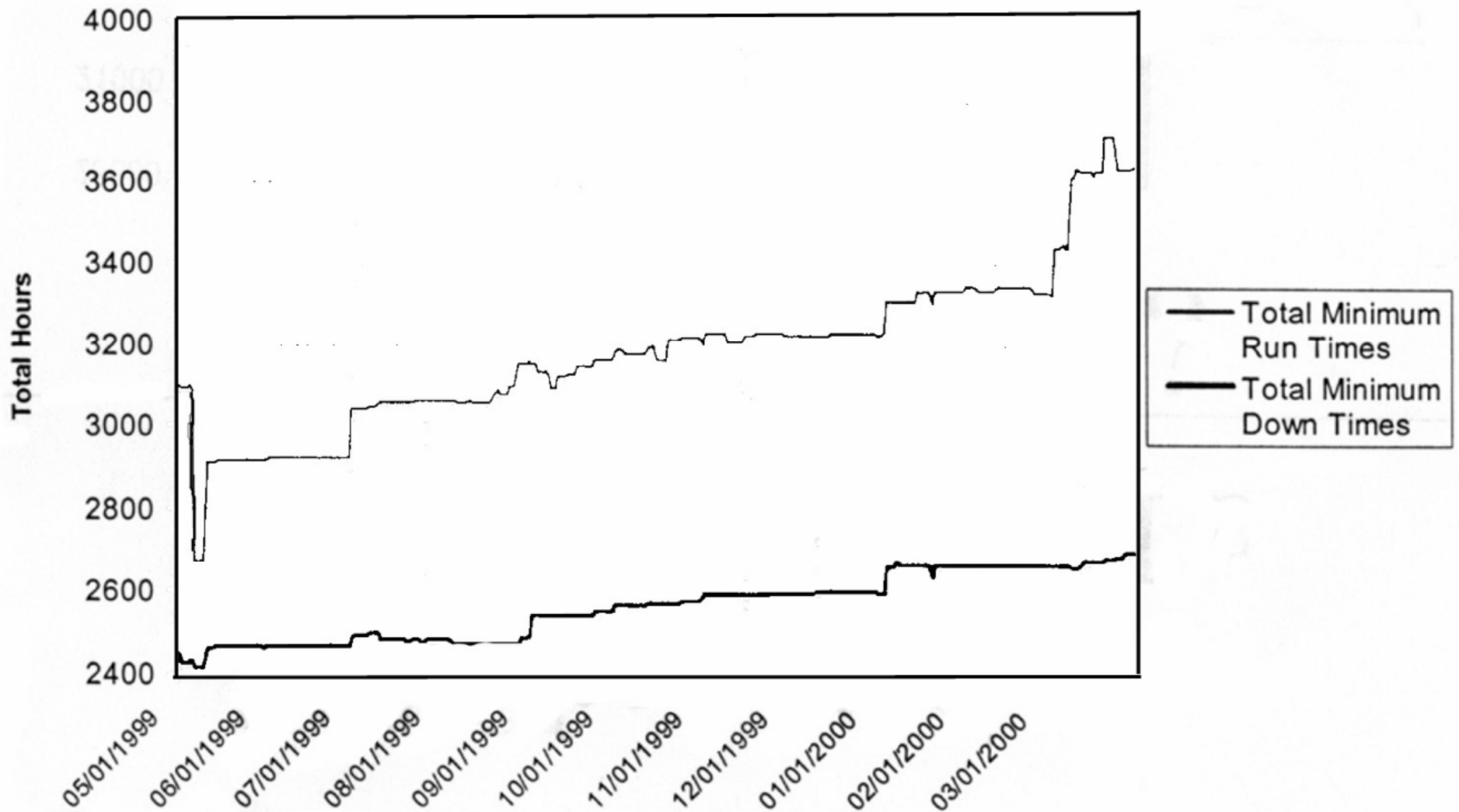


# Generator #3 Bids (Mitigated)



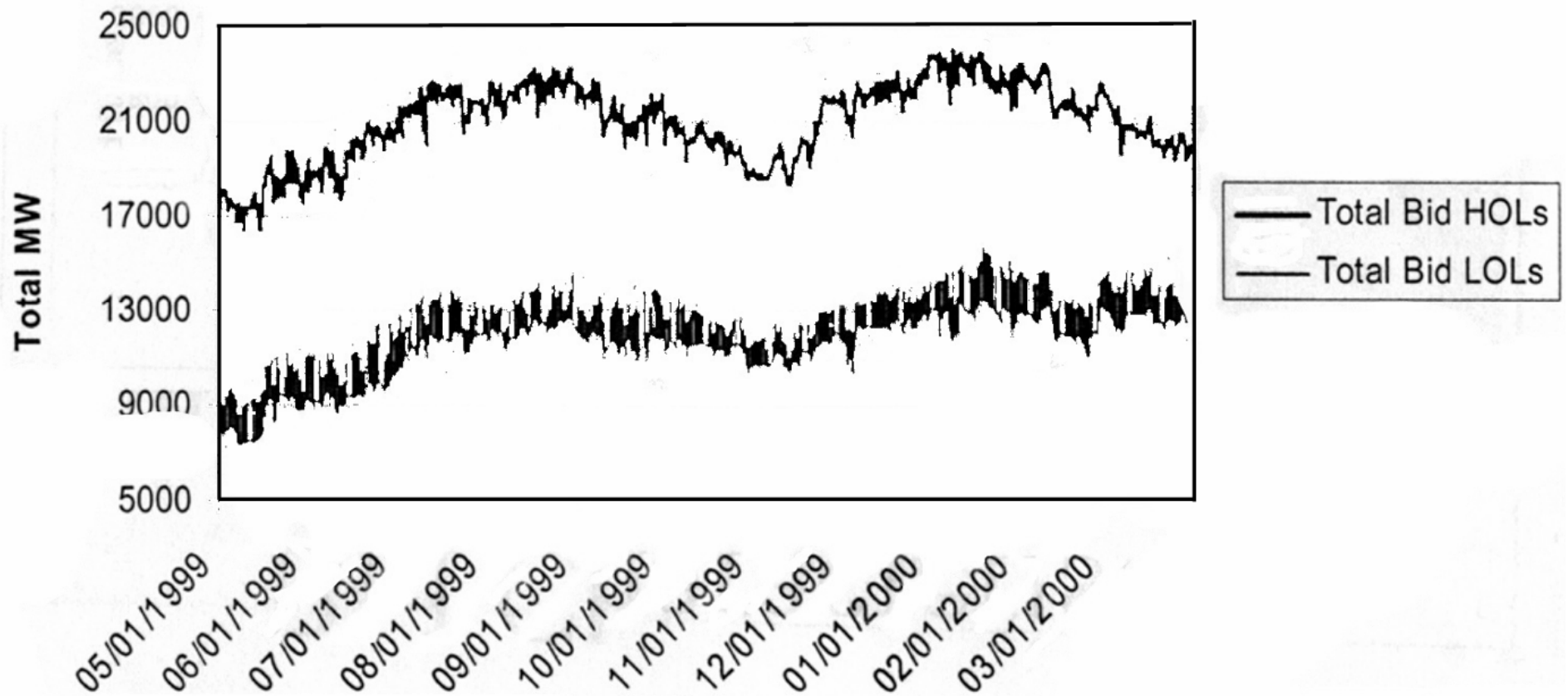
# NE Generator Constraints

## Minimum Run and Down Times





# NE Generator Constraints High and Low Limits

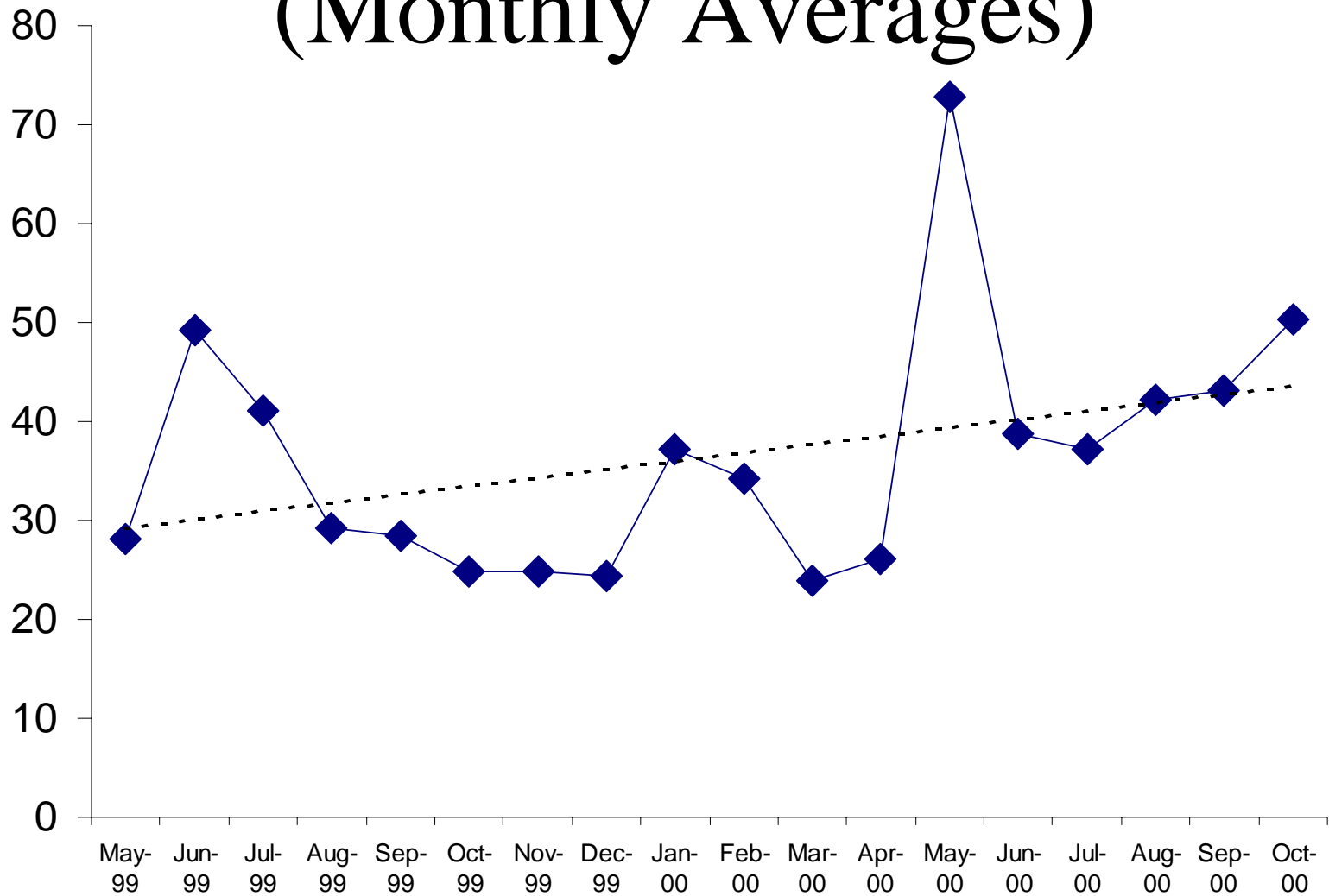


# NE Generator Outages

Fossil Steam Plant Equivalent Forced Outage  
Rates Doubled:

- Before market = 11.4% (1/97 to 4/99)
- After market = 23.6% (5/99 to 12/99)

# NE Energy Market Prices (Monthly Averages)



# Remedies

- Increased load response
- Congestion management
- Market monitoring and mitigation
- Price caps
- Reduce concentration of generation control