

**Utility Industry Structure for a Competitive Market:
Independent System Operator and
the Power Exchange**

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California Experience – Overview

Milestones

Yellow Book – 1993


Blue Book – April 1994

Alternative Decisions – May 1995

MOU – September 1995

CPUC Decision – December 20, 1995

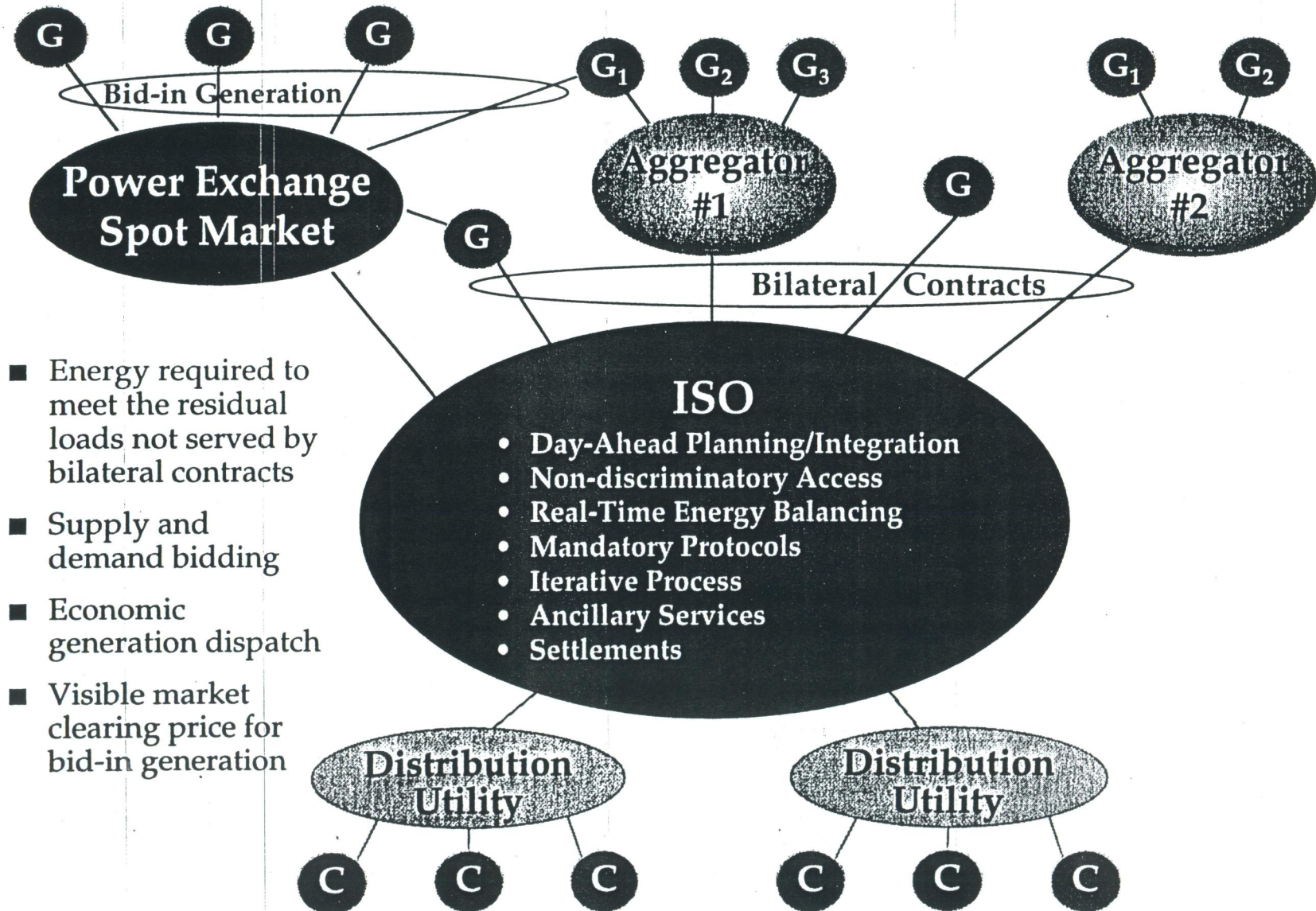
Issues

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- Competition Wholesale or Retail
 - Prices – Regulated or Competitive
 - Customer Choice – Virtual or Direct
 - Stranded Cost Recovery – All or None
 - Generation Divestiture – All or None
 - Market Structure – POOLCO or Bilateral
 - Public Policy Programs – Commitment and Funding
 - Who Wins – Big or Small Consumers
 - Jurisdiction, Reciprocity, Level Playing Field

California CPUC Decision

- **California CPUC Decision**
 - 100% cost recovery
 - Implement new market structure by 1/98 with Independent System Operator, Power Exchange, and start of Direct Access
 - Phase-in of Direct Access – no more than 5 years
 - 50% fossil generation divestiture
 - All customers have choice, flexibility, and benefits of competition
 - Public Policy Programs funded by non-bypassable charge
 - Competitive Transition Charge – un-bypassable
 - No cost shifting

CPUC Decision Market Structure



Function of the ISO and Power Exchange

ISO

- Manages reliability of transmission grid
- Controls dispatch of transmission grid
- Provides non-discriminatory, open access to transmission grid
- Procures ancillary services
- Coordinates day-ahead power scheduling and real-time power balancing
- Performs settlement function for unscheduled transactions and ancillary services
- Administers Congestion Management Protocols for Transmission Grid/ Network

Power Exchange

- Runs the day-ahead spot market auction
- Voluntary participation by producers
- Power producers compete based on non-discriminatory and transparent bidding rules
- Submits proposed power delivery schedule to the ISO
- Establishes visible market clearing price
- Performs settlement function for day-ahead scheduled transactions

ISO and Power Exchange Separation

- Functionally separates operating and commercial auction functions
- Assigns focused responsibility to ISO and Power Exchange
- Provides transparent information about system operations and congestion
- Aids in eliminating any perception of discriminatory decision making
- Sets up ISO to treat bilateral and power exchange schedules on a comparable basis
- Eliminates the potential and perception of conflict between ISO's operating role and procurement role with incentives for financial gain by preferring exchange supplier over others in dispatching generation and scheduling transmission

Utility Structure In Transition

Integrated Structure – Existing

Generation

Transmission

Distribution

Existing Functions

Generation

Prescheduling

Dispatch

Transmission

Distribution

Functional Unbundling – New

Generation

Power
Exchange

Independent
System Operator

Transmission/
Grid

Distribution

Retailing

Market Structure Comparison

Market Structure Objectives	Separate ISO/PX	Integrated ISO/PX
Functional Separation	Yes	No
Reliability	Yes	Yes
Efficiency	Yes	Yes
Transparency	Yes	No
Focus	Yes	No
Unbundled Prices	Yes	No
Practicality/Current Practice	Yes	No