

**Summary of Testimony of
Pat Wood, III
Chairman, Federal Energy Regulatory Commission
Before the Subcommittee on Energy Policy,
Natural Resources and Regulatory Affairs
of the Committee on Government Reform
February 22, 2002**

As the electric utility industry continues to move toward the goal of a competitive wholesale electricity market, an efficient market characterized by balanced market rules and sufficient infrastructure is absolutely necessary. A solid market design can help to reduce price volatility and reduce the need for after-the-fact fixes.

A recent operational audit of the California Independent System Operator (ISO) recommended specific actions that the Commission and the ISO can take – separately or in concert – to improve the ISO's performance. Interested parties are commenting on this audit presently.

While spot prices for electricity in California and throughout the West have declined significantly in recent months, it is important to understand that certain market design flaws still remain. Commission actions have helped to improve the way the market functions, but they have not completed the restructuring that will be necessary to make the markets operate efficiently. A new market design proposal from the California ISO staff addresses some issues that must be resolved to ensure the efficient performance of wholesale markets in California.

The need for improvements in market design exists nationwide, not just in California. Market design issues are one of the Commission's highest priorities this year, and to this end we have begun a rulemaking proceeding that will standardize particular aspects of electricity market design and structure. Our goal is to create a seamless, national market for wholesale electricity, and to fulfill the vision of competitive wholesale markets that was endorsed in the Energy Policy Act of 1992.

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I. Introduction

Mr. Chairman and Members of the Subcommittee:

Thank you for the opportunity to speak today regarding the Commission's wholesale electricity market design goals for California and for the nation. Market design is among the Commission's highest priorities this year. As the electric utility industry continues to move toward the goal of a competitive wholesale electricity market endorsed in the Energy Policy Act of 1992, an efficient market characterized by balanced market rules and sufficient infrastructure is absolutely necessary.

Today I will describe the Commission-sponsored audit of the California Independent System Operator, or ISO, which is currently undergoing comment by interested parties.

I will also address certain aspects of the design of California's wholesale electricity markets. Finally, I will provide an overview of the Commission's current rulemaking initiative, which will propose greater standardization of wholesale electricity markets throughout the nation, thereby reducing costs that ultimate customers must pay.

While spot prices for electricity in California and the West have declined significantly, certain market design flaws still remain in California and much work

remains to be done. The recent ISO audit report and the comments currently being solicited will assist the Commission in moving forward to address these important issues. In addition, the Commission's generic initiative on standard market design will improve wholesale energy markets by implementing sound, tested market rules across the nation, including California, to increase competition and to allow energy transactions to take place efficiently across and between wide regions. This rulemaking initiative firmly embraces one of the most important lessons learned from the California energy crisis: A solid market design can help to prevent price volatility and reduce the need for after-the-fact fixes.

California's market design and the independence of the ISO are raised in numerous contested proceedings pending before the Commission, and I cannot discuss today the merits of any specific issues pending before the Commission. I therefore will focus my comments on informing the Subcommittee about the recent ISO audit report and the ISO market design proposals, and I will also discuss the Commission's progress in moving forward on generic issues related to market design.

II. Independence of the California ISO

Last fall, the Commission hired an independent consultant to conduct an operational audit of the ISO. We received the results of the audit from Vantage Consulting on January 25, 2002.

The purpose of the report was to have an independent entity identify any problems in the ISO's structure and operations and appropriate steps for prospective improvements

to California markets, including improvements that will help the ISO enhance its effectiveness. The report recommended 19 specific actions that the ISO and the Commission can take – jointly or separately – to improve the ISO's performance. These were discussed directly by Mr. Drabinski in his testimony.

Notice of the Operational Audit was published in the Federal Register on January 31, 2002, in Docket No. PA02-1, and the notice invited written comments on the audit report's list of specific recommendations. Commenters were asked to state which recommendations, if any, they believe should be adopted and to prioritize those recommendations. They were also asked to discuss an appropriate time frame for implementation of the recommendations that they believe should be adopted. We received the ISO's comments on the Audit on February 14, 2002. All other comments are due on March 1, 2002.

This matter is pending before the Commission. Thus, I cannot comment further on the audit or action that the Commission may take pursuant to its recommendations.

III. California Market Design

In an order issued on November 1, 2000, the Commission identified numerous flaws in the California wholesale electricity markets. The order stated that short-term market flaws included:

- the requirement that investor-owned utilities sell all their energy into, and buy all their energy from, the California Power Exchange;
- chronic underscheduling of load and generation within the ISO; and

- a lack of standard procedures to facilitate the interconnection of new generation.

For the long term, we proposed the consideration of:

- improved market rules respecting reserve requirements;
- improved market power mitigation measures;
- a better system of congestion management;
- mechanisms to elicit greater demand response; and
- development of a broader, regional transmission management organization, or RTO.

The Commission followed up these statements in a December 15, 2000 Order that described in further detail the problems with California's electricity market design. The Commission directed measures to remedy the problems.

FERC eliminated the requirement that California's investor-owned utilities – San Diego Gas & Electric, Southern California Edison, and Pacific Gas & Electric – sell all their power into, and buy all their power from, the California Power Exchange. This change allowed investor-owned utilities to mitigate their exposure to spot markets by entering into bilateral, long-term agreements to balance their portfolios of contracts and reduce price volatility. This also allowed the utilities to use their own resources without transacting through the spot markets. At the same time, we formally eliminated the Power Exchange's wholesale rate schedules for the spot markets, ending its ability to operate as a mandatory power exchange.

To help guard against continued volatility in California's spot markets, we directed Commission staff to hold a technical conference for purposes of establishing a comprehensive, systematic market monitoring and mitigation program, and ultimately, adopted a new mitigation program on a prospective basis. The plan became effective on May 29, 2001, and was extended to encompass the entire Western region in our June 19, 2001 order. The plan:

- retained the use of a single market-clearing price with must-offer and marginal cost bidding requirements for sales in the ISO's spot markets in reserve deficiency hours;
- applied that clearing price as a maximum price for sales outside the ISO's single price auctions;
- set a benchmark for the non-reserve deficiency market clearing price;
- instructed bidders to bill the ISO for the cost to comply with emissions requirements and start-up fuel costs;
- allowed sellers the opportunity to justify bids or prices above the maximum prices; and
- required sellers with participating generator agreements to offer all their available power in real time (this is called the "must-offer" requirement).

The June 19 Order also restated the Commission's belief that a demand response mechanism is crucial to establishing a robust market. Demand response mechanisms

give customers the opportunity to manage their demand, and allow allocation of scarce supplies to the users who value them most. The Commission stated its intent to hold a generic technical conference to explore how demand response can be increased. That conference took place last week. It included valuable discussion of how demand response can be used to check prices and market power, and afford customers control over their power bills; it delineated critical issues in linking demand response from retail into wholesale power markets; and it helped us to better understand how demand response has fared in wholesale markets and what market rules will be needed to support demand response going forward.

FERC's major orders in 2001 on California were affirmed and clarified in our December 19, 2001 order on rehearing.

IV. California ISO Market Design Proposal

While FERC's directives have improved the functioning of the California energy markets, they did not complete the restructuring that is necessary to make those markets operate efficiently. The ISO staff released, on January 8 of this year, a proposed new market design that is meant to address current problems in a systematic fashion and create a framework for a more sustainable, competitive energy market in California. The proposal was updated on January 28, 2002, to take into account input from market participants and the continued efforts of the California ISO's market design team. The updated proposal indicates that the ISO plans to make two filings with the Commission

concerning this proposal, and that those filings are targeted for late March and early May 2002.

The key features of the ISO staff proposal are as follows.

First, the ISO proposes to require that each load-serving entity have a specified amount of available capacity over and above the expected demand of its customers. This obligation would apply to all load-serving entities that serve end-use electric customers. It is meant to ensure that adequate capacity is available on a daily basis to meet system load and reserve requirements. The January 28 update extended the late March target for filing this proposal with the Commission, but the ISO's market design team plans to use the additional time to continue to develop the design and implementation details for this proposal.

Second, the ISO proposes day-ahead congestion management. This tool would allow the trading of energy at a few key hubs within the state, and adjust generation and load schedules, to mitigate transmission overloads and ensure local reliability.

Third, the ISO proposes a forward spot energy market that would replace the former Power Exchange day-ahead market. The proposal states that the ISO market design team is still evaluating its options with respect to creating a new hour-ahead spot market.

Fourth, the ISO proposes a mechanism giving the ISO discretion to evaluate whether day-ahead schedules include enough online resources to meet forecast demand, and to commit additional units if necessary.

Fifth, the ISO proposes real-time bid mitigation for local reliability needs. This is a before-the-fact tool that seeks to prevent suppliers from exercising locational market power. The ISO staff proposal states that the ISO intends to model this tool on successful designs other ISOs use.

Finally, the ISO proposes a “damage control” price cap on ISO markets. Similar to the mechanisms used in the Northeast ISOs, this price cap would replace the currently effective Commission market mitigation and serve as a "circuit breaker" in spot energy markets.

The ISO states that these proposals will be filed with the Commission. I cannot prejudge the merits of the ISO staff proposals, and will not comment upon them at this time. I will say, however, that the concerns and deficiencies addressed by these proposals are important to the efficient performance of the wholesale markets in California, and that many ideas the ISO staff proposal describes have been efficient as implemented in other regions of the country. Whether or not they are the right solutions for California, I am glad that they will attempt to address the problems in California's wholesale market design. These problems are very serious, and they must be solved. I

look forward to seeing the ISO's final proposal once it is filed with the Commission, and to hearing the views of all interested parties on these issues.

V. Standard Market Design

The need to develop balanced market rules is not limited to California; it is national in scope. To that end, the Commission has begun a rulemaking that will standardize particular aspects of electricity market design and structure, with the goal of creating a seamless, national market for wholesale electricity. The fundamental premise is that a well-designed market can, and will, do far more than after-the-fact fixes to protect customers from price volatility like that experienced by California. To create such a market, we will not begin with the lowest common denominator, but seek to identify best practices currently in operation across the nation and adapt these successful practices as the national standard. We need to ensure consistency between existing markets to facilitate the flow of power between and across regions and to give customers greater access to low-priced power.

Our effort began in June 2001 with an RTO “seams” conference, which focused on the issues raised by the Commission's requirement that an RTO coordinate with neighboring regions on minimizing or eliminating “seams” between regional markets. The frustration we heard during the “seams” conference prompted us to hold a week-long, Commissioner-led series of conferences in October 2001 to consider issues in the continued development of RTOs; we called these conferences “RTO Week.” Numerous

state commissioners and representatives from every sector of the electric industry participated in RTO Week. The conferences featured informative discussions of, among other things:

- the energy markets RTOs should be required to offer, and those they should have the option of offering;
- ways to make congestion management systems more efficient and flexible;
- RTO planning and expansion;
- the load, facilities and services that should be placed under RTO tariffs;
- recovery of costs associated with building transmission facilities;
- states' role in the RTO formation and market oversight processes;
- cost-benefit analyses;
- standardization of business practices; and
- market monitoring and mitigation.

To gain a more comprehensive understanding of industry views on these and other issues, we later solicited two sets of public comments: one to follow up on RTO Week, and one to address the proper allocation of functions between RTOs and other entities. We have since received many comments on these topics, and these comments are helping the Commission and its staff better understand the needs and concerns of market participants and state regulators.

At our December 19, 2001 open meeting, Commission staff presented us with a concept paper that outlined Staff's proposal for a standard electricity market design. The paper has been released to the public, and since that time has served as a starting point for discussions throughout the rulemaking process.

We are presently engaged in significant outreach efforts. We have held a number of public technical conferences and meetings with representatives from all areas of the industry to sharpen our understanding of market design issues and their impact on market participants.

Following completion of these diverse efforts, the Commission intends to propose and, later, adopt standard market design rules this year. One issue we will have to decide is how much standardization versus how much regional variation should be allowed in light of the need to eliminate "seams" problems so that markets work efficiently, yet recognize legitimate regional differences in the way the energy markets or the transmission grid operate. We have not yet made substantive decisions about any aspects of the standard market design, but we are considering numerous ideas proposed in the staff concept paper and discussed in our outreach conferences.

For example, should we require transmission providers to offer market participants access to real-time and day-ahead energy markets? The real-time market could feature locational energy prices at different points on the transmission system that accurately reflect the cost of transmission congestion and line losses. The day-ahead market could allow buyers to see energy prices a day ahead of time and to respond appropriately, for

example, by locking in those prices. This feature could also facilitate the grid operator's planning for the following day.

Should we require transmission providers to operate a day-ahead transmission services market? Such a market could be bid-based and operated in conjunction with the day-ahead energy market in order to develop a day-ahead schedule for transmission rights. A day-ahead transmission services market could permit more efficient management of transmission congestion, and allow parties with voluntary bilateral energy transactions to acquire the transmission rights they need to complete the energy transactions.

Another issue before us is how to define transmission rights. Transmission rights may be defined as physical rights (the right to physically inject energy at one point of the grid while withdrawing energy from another point) or financial rights (the right to receive the transmission revenues associated with a specific transmission path or flowgate, and thereby hedge against congestion costs). Both models are in use today, in different regions of the country, and we must address that reality.

The Commission is also considering the need for some market or regulatory mechanism to assure that adequate generation and demand-side resources exists, relative to demand, over the long term. Having a healthy excess of capacity over demand provides long-term market stability and reduces price levels and volatility in short-term electric markets.

Finally, minimizing the costs of implementing a new market design will require a special focus on software. Any software used under the new market design must be transparent and testable. There are significant questions as to who should develop this software, at what cost, and whether and how the software can accommodate evolutions in standard market design.

Already, we see some consensus developing from the written comments we have received and the statements that have been made at our outreach conferences. There seems to be widespread, although not universal, support for implementation of day-ahead and real-time energy markets. Many parties also support a day-ahead transmission services market and implementation of financial transmission rights. We will continue to work to achieve consensus in as many areas as possible as we move forward with this important rulemaking. The Commission is committed to developing a standard market design and will be making some substantive decisions on these matters in the near future.

VI. Conclusion

The Commission has pending before it a number of important issues to decide with respect to both the independence of the California ISO as well as a market design for the California wholesale marketplace for electric energy that will bring greater efficiencies and ensure customer protection. The Commission also is moving ahead on a generic basis to achieve the vision of competitive wholesale markets that the Congress endorsed in the Energy Policy Act of 1992. We will seek to act in both of these areas with careful deliberation. A solid, well-thought out market design will encourage

competition and help ensure stable prices, both in California and elsewhere, and we remain committed to creating and implementing such a design for the benefit of the nation's energy customers. Thank you.