

1998).<sup>44</sup> Accordingly, the MMIP has been part of the ISO's and PX's filed tariffs since 1998, which includes the period January 1, 2000 to June 20, 2001 at issue here.

27. With respect to tariff provisions besides the MMIP cited by the California Parties: (1) The WSCC requirements cited by the California Parties make no reference to gaming strategies or anomalous market behavior (as does the MMIP), and therefore, those provisions do not provide a basis for finding gaming and/or anomalous market behavior; and (2) conduct involving arbitrage, underscheduling and confidentiality of certain data is addressed below in the discussion of Gaming Practices and California Practices. We are also currently investigating alleged violations related to physical withholding.

### C. Overview of PX and ISO Operations

28. The Staff Final Report provides an overview of the ISO and PX operations and trading rules in order to put the alleged practices in the context of Western energy markets.<sup>45</sup> This overview is recited below.

29. The ISO operates much of the transmission grid in California and is responsible for real-time operations, such as continually balancing generation and load and managing congestion on the transmission system it controls. In California, a certified scheduling coordinator is the intermediary between the ISO and the ultimate customer. Under California's restructuring legislation, the PX was created primarily to operate two markets in which energy was traded on an hourly basis. These were the day-ahead and day-of markets. These markets established a single clearing price for each hour across the entire ISO control area, provided there were no transmission constraints. Where transmission congestion existed, a separate clearing price was established for each transmission constrained area or zone in California. Each zonal clearing price was based on adjustment bids submitted by sellers and buyers. The adjustment bids represented the value to an entity of increasing or decreasing (*i.e.*, adjusting) its use of the system. In essence, this is a redispatch of the system to deal with congestion.<sup>46</sup>

30. The ISO operates a variety of markets in order to procure the

resources necessary to reliably operate the transmission system, including a day-ahead market and an hour-ahead market for relieving transmission congestion and an energy market to continuously balance the system's energy needs in real time. The latter real-time market is the final energy market to clear chronologically, after all other markets in the region clear. Bilateral spot markets at trading hubs outside California generally operated in the time period between the close of the PX market and the ISO real-time market.<sup>47</sup>

31. As the Staff Final Report notes, understanding the interaction of the PX and ISO spot markets with all their complexities, together with the different market operations outside of California, is crucial to understanding and analyzing the impact of the various conduct discussed below. An example of these complexities is the transmission congestion management system. A transmission path is "congested" when total schedules exceed the available transmission capacity of the facilities. The ISO used, as suggested above, a zone-based approach to alleviate congestion. Sellers and buyers submitted adjustment bids identifying the prices they were willing to use to increase or decrease their generation on demand to relieve congestion in a particular zone. However, the software used by the ISO to evaluate adjustment bids did not accept prices that were higher than the ISO price cap. These and other complexities created an opportunity for the market participants to engage in the conduct described below.<sup>48</sup>

32. In addition, it is important to remember that California's restructuring plan required the three California public utilities (Southern California Edison Company (SoCal Edison), San Diego Gas & Electric Company (SDG&E), and Pacific Gas and Electric Company (PG&E)) to sell all of their generation resources into the PX and to buy all of their energy needs from the PX. This made the PX by far the largest scheduling coordinator in California, representing at times close to 90 percent of the load served by the ISO grid. This requirement that the three public utilities exclusively use the PX was critical in the restructuring program, since this was how the three public utilities were to calculate savings from using the new market structure and apply those savings to recover their stranded costs.<sup>49</sup>

33. Thus, under the California restructuring rules, the three California public utilities were both buyers and sellers in the PX. The prices paid for buying back their own resources through the PX served to value those resources for stranded cost purposes. As long as the three public utilities paid less than the frozen retail rates, they used the difference to write off stranded costs. This formula broke down, however, when the public utilities had to buy back their resources at more than the frozen retail rates.<sup>50</sup>

### D. Gaming Practices and California Practices

34. Since the inception of the Commission's investigation into whether any entity manipulated prices in the electricity and gas markets in the West and the release of the first Enron memorandum in May 2002 discussing its trading strategies, there have been a multitude of studies and reports written about the alleged inappropriate conduct in California by market participants during 2000 and 2001. In addition to the Staff Final Report that addresses these issues, we have reviewed the ISO Report and the several studies and testimony by witnesses submitted in the 100 Days Evidence. Most notable among the testimony submitted with respect to alleging gaming conduct by market participants are the testimony and studies conducted by Dr. Peter Fox-Penner.<sup>51</sup>

35. As a result of our review and analysis of this material, the Commission has determined that some of these alleged gaming practices violated the MMIP. As to those practices that violated the MMIP (hereafter collectively referred to as the Gaming Practices), we found two categories of violations: (1) Gaming Practices that violated the MMIP and for which we are seeking disgorgement of all unjust profits received as a result of those violations; and (2) Gaming Practices that violated the MMIP, but for which there were no unjust profits earned or other countervailing and mitigating circumstances existed that caused the market participants to engage in the

<sup>50</sup> *Id.* at 4–5. As noted in the Commission's December 15, 2000 Order, 93 FERC at 62,002 & n.54, stranded cost estimates showed that by then PG&E had collected \$8.3 billion, and SoCal Edison had collected \$9.3 billion; SDG&E had fully recovered its stranded costs earlier in 2000. Staff Final Report, ch. VI at 5.

<sup>51</sup> See Prepared Testimony of Dr. Peter Fox-Penner on Behalf of California Parties, Exhibit No. CA-1, and Appendices to Prepared Testimony of Dr. Peter Fox-Penner on Behalf of California Parties, Exhibit No. CA-2 attached to California Parties' Supplemental Evidence Filing in Docket No. EL00-95-075, *et al.* (filed March 3, 2003).

<sup>44</sup> *Id.* The ISO (in Docket No. EC96-19-029, *et al.*) and PX (in Docket No. EC96-19-28, *et al.*) each made that compliance filing on June 1, 1998.

<sup>45</sup> See Staff Final Report, ch. VI at 4–6.

<sup>46</sup> For a more detailed description of the day-ahead auction process, see the Staff Final Report, ch. VI at 5.

<sup>47</sup> *Id.* at 5–6.

<sup>48</sup> *Id.* at 6.

<sup>49</sup> *Id.* at 4.