

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

San Diego Gas & Electric Company,)	
Complainant,)	
)	
v.)	Docket Nos. EL00-95-000
)	EL00-95-045
Sellers of Energy and Ancillary Services into)	EL00-95-075
Markets Operated by the California)	
Independent System Operator Corporation)	
and the California Power Exchange,)	
Respondents.)	
)	
)	
Investigation of Practices of the California)	EL00-98-000
Independent System Operator Corporation)	EL00-98-042
and the California Power Exchange)	EL00-98-063
)	

THE CALIFORNIA PARTIES' REPLY COMMENTS

The People of the State of California, *ex rel.* Bill Lockyer, Attorney General, the California Electricity Oversight Board (EOB), the Public Utilities Commission of the State of California (CPUC), Pacific Gas and Electric Company (PG&E), and Southern California Edison Company (Edison) (collectively, the California Parties) hereby submit their reply comments.

Five different groups of sellers submitted evidence purporting to show that there was little or no market manipulation in the California wholesale market between January

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1, 2000 and June 20, 2001.¹ As the California Parties explain below, these presentations are contrary to established fact and must be rejected.

I. INTRODUCTION AND OVERVIEW

The California Parties' March 3 Filing presented compelling evidence of the widespread market manipulation that occurred in the California wholesale markets between May 1, 2000 and June 20, 2001. The evidence adduced by the California Parties demonstrated that, while market conditions provided sellers with the opportunity to manipulate California's power markets, it was seller misconduct that directly caused prices to rise to extraordinary levels. These price increases bore no relationship to the prices that would have resulted if the applicable tariffs and market rules had been observed and, therefore, cannot be explained as the natural result of market conditions.

By contrast, the five seller presentations that were submitted to the Commission on March 3 failed entirely to address the growing body of evidence of seller misconduct or to analyze any of the evidence produced during the 100-day period. Instead, they repeat the tired mantra that the high prices were solely the product of market

¹ See, e.g., Proposed Findings of the City of Burbank, California, the City of Glendale, California, Imperial Irrigation District and Turlock Irrigation District, dated March 3, 2003 (BGIT Filing); Letter from Ms. Andrea Chambers, Troutman Sanders LLP. to the Honorable Magalie R. Salas, dated March 3, 2003 (Mirant Filing); Initial Proposed Findings of Fact and Supporting Testimony and Exhibits of Powerex Corp., dated March 3, 2003 (Powerex Filing); Reliant's Submission of Evidence Counter-Indicative of Market Manipulation, dated March 3, 2003 (Reliant Filing); Prepared Testimony of Charles J. Cicchetti on behalf of Avista Energy, Inc., BP Energy Company, IDACORP Energy L.P., Puget Sound Energy, Inc., TransAlta Energy Marketing (U.S.) Inc., TransAlta Energy Marketing (California) Inc., and TransCanada Energy, Ltd., Exh. No. MAR-1 (Cicchetti Testimony). Additional filings were made on March 3 by the City of Seattle and by the EOB and the CPUC. The California Parties are not responding to these latter filings.

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fundamentals. Through the testimony of Dr. John W. Wilson (BGIT), Drs. Scott M. Harvey and William W. Hogan (Mirant), Drs. Richard D. Tabors and Frederick H. Pickel (Powerex), Mr. Cliff W. Hamal (Reliant), Dr. Charles J. Cicchetti (Avista, *et al.*) and others, the sellers allege that economic forces and market design flaws caused the high prices. In taking this position, they have largely avoided any consideration of the individual behavior of their own clients or of the multitude of other evidence produced in this proceeding. Thus, after more than 100 days of discovery, the sellers produced theoretical hypotheses that are divorced from fact.

Through the sworn testimony of six expert witnesses and the sixteen exhibits that accompany this filing, the California Parties hereby respond to the sellers' theoretical arguments. The California Parties show that:

- The emphasis of the sellers' witnesses on fundamentals ignores both the historical behavioral patterns that the California Parties described in the March 3 Filing and their clients' own conduct. This failure to even consider the impact of market manipulation on the high prices highlights the lack of seriousness the sellers brought to their analyses. In response to the sellers' arguments that market fundamentals readily explain the high prices between May 2000 and June 2001, Dr. Peter Fox-Penner explains why such arguments are wrong.² Dr. Fox-Penner shows that none of the sellers' witnesses provided evidence counter-indicative of his conclusion from his March 3 Testimony, Exh. No. CA-1, that tight market conditions during this time made it that much easier for sellers to manipulate the market, but that it was the market manipulation that caused the crisis.

² See, e.g., Prepared Rebuttal Testimony of Dr. Peter Fox-Penner, Exh. No. CA-349 (Fox-Penner Rebuttal Testimony) and Fox-Penner Appendices, Exh. No. CA-350; Prepared Rebuttal Testimony of Robert J. Reynolds Ph.D., Exh. No. CA-352 (Reynolds Rebuttal Testimony) and Reynolds Appendices, Exh. CA-353; Prepared Rebuttal Testimony of Arthur Lewbel, Ph. D., Exh. No. CA-356 (Lewbel Rebuttal Testimony) and Lewbel Appendices, Exh. No. CA-357.

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- The California Parties' recommendation for the Commission to apply the mitigated market-clearing price (MMCP) methodology that was adopted in the Commission's Refund Proceeding in Docket Nos. EL00-95-045, *et al.* reflects the scarcity conditions that the sellers argue otherwise prevailed in 2000-2001. The prices that are derived from the application of the MMCP methodology reflect both the actual availability of power (based on the units that were actually dispatched in the ISO imbalance energy market) and a calculation of the cost of producing that power (factoring in fundamental inputs such as the cost of gas). In contrast to the sellers' willful disregard for the effects of market manipulation, the California Parties have sought to capture economic scarcity and other fundamentals in their request for relief. The fact that the California Parties are seeking billions of dollars in relief reflects the fact that prices charged from May 2000 through June 2001 far exceeded the levels that could possibly be explained by the fundamentals.
- The sellers' quantitative effort to justify the pricing patterns that existed between January 1, 2000 and June 20, 2001 is riddled with flaws. Drs. Robert J. Reynolds, and Arthur Lewbel³ reveal the serious flaws in Dr. Cicchetti's econometric conclusion that ninety-five percent of the price differences in the California wholesale markets can be traced to "benign economic and market forces." As a result, Dr. Cicchetti's analysis is useless for demonstrating what went wrong in the California markets. Dr. Cicchetti relies on a variety of statistical chicanery, including the creation of arbitrary dummy variables to reflect "market flaws," the apparent sole purpose of which is to provide an alternative explanation to price increases that cannot be explained by the fundamentals.
- The sellers' reliance on an untested study conducted by Dr. Reishus and Mr. Wang purporting to show the reasonableness of California border gas price indices is specious. The Reishus-Wang study is unsound and biased. In rebuttal testimony, Dr. Harris identifies at least eight critical flaws and points to additional evidence already adduced showing that the California border indices for natural gas are not reliable, are not representative of

³ Prepared Rebuttal Testimony of Robert J. Reynolds Ph.D., Exh. No. CA-352 (Reynolds Rebuttal Testimony) and Reynolds Appendices, Exh. CA-353; Prepared Rebuttal Testimony of Arthur Lewbel, Ph. D., Exh. No. CA-356 (Lewbel Rebuttal Testimony) and Lewbel Appendices, Exh. No. CA-357.

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generators' gas costs, and, therefore, should not be used as part of the refund calculation.⁴

- The sellers' arguments that market rules did not apply to them, despite tariff requirements, Commission orders, and public market monitoring reports that identified objectionable practices, are disingenuous. The California Parties' March 3 Filing discussed numerous rules and requirements that the sellers were obliged to follow. In particular, the claim by Mirant and Reliant that hockey-stick bidding practices reflected legitimate behavior is rebutted by Mr. Hanser.⁵ Mr. Hanser explains that such behavior was not only unnecessary for the generators to recover their unit costs, it also constituted an anti-competitive exercise of market power.
- In response to the seller allegations that any consideration of their behavior must take into account "IOU underscheduling," Dr. Gary A. Stern⁶ demonstrates that their "blame the victim" approach is without merit. As Dr. Stern showed in his March 3, 2003 testimony, the entire underscheduling issue was engineered by sellers who engaged in numerous withholding strategies intended to force buyers into the more easily manipulated real-time market. The sellers have presented nothing new, and Dr. Stern explains that the problem was seller withdrawal from the PX day-ahead market.
- Seller claims that buyers are to blame for high prices due to the alleged conduct of the California Energy Resources Scheduling Division (CERS), are also misplaced. As the California Parties explain, such arguments are simply an effort to divert the Commission's attention away from the true bad actors that caused the extraordinary price increases in California from May 2000 to June 2001.

When evaluated against the insubstantial evidentiary showing that the sellers have made with respect to findings that are counter-indicative of market manipulation, the

⁴ Prepared Rebuttal Testimony of Dr. Michael Harris, Exh. No. CA-358 (Harris Rebuttal Testimony).

⁵ Prepared Rebuttal Testimony of Philip Hanser, Exh. No. CA-354 (Hanser Rebuttal Testimony) and Hanser Appendices, Exh. No. CA-355.

⁶ Rebuttal Testimony of Dr. Gary A. Stern on Behalf of California Parties, Exh. No. CA-351 (Stern Rebuttal Testimony).

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California Parties submit that there are no issues of material fact in dispute that would warrant a hearing. The Commission should adopt the California Parties' proposed findings on the basis of both this filing and the March 3 Filing. However, if the Commission determines that there are material issues that require an evidentiary hearing, the California Parties request the opportunity to cross-examine each of the sellers' witnesses that sponsored testimony on March 3, as well to cross-examine any additional, yet unidentified, witnesses who sponsor testimony on March 20, and such other additional procedures as may be appropriate.

II. THE SELLERS' ATTEMPTS TO EXPLAIN EXCESSIVE PRICES ARE CONTRARY TO THE EVIDENCE

A. The Sellers' Focus on "Fundamentals" Is Intended to Distract Attention from the Effects of Their Behavior on Prices

Sellers' experts offer testimony notable for what it fails to address: the practices in which the sellers actually engaged. The witnesses purposely evade or ignore those practices, reaching skewed and inaccurate conclusions based on abstract theories. There is no review and application of real data and facts. Instead, the witnesses espouse a uniform theme: the California markets were flawed, and the resulting market inefficiencies should not be attributed to the sellers. However, the California Parties' March 3 Filing tells a very different story, backed by facts and overwhelming evidence, showing pervasive market manipulation and fraudulent acts in direct violation of the ISO

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and PX tariffs and filed rate schedules, sellers' market-based rate authorizations, Commission orders, and other requirements.⁷

1. Reliant

Testifying on behalf of Reliant, Mr. Hamal states that market rules define the bounds of acceptable practices and should be the basis for evaluating participant behavior.⁸ He asserts that when "bad market design and unfortunate circumstances result in undesirable outcomes, the solution lies in fixing the market, not in penalizing select participants that followed the rules."⁹ Indeed, Mr. Hamal lowers the bar still further: "It seems completely inappropriate to conclude today that certain practices were in violation of market rules if market monitors at the time were aware of those practices and their consequences, but did not challenge them."¹⁰

⁷ The California Parties have identified two data errors that affect Dr. Fox-Penner's testimony in Exh. No. CA-1 and CA-2. First, due to an error in an underlying ISO data set, the screening test for the scheduling of false load, summarized in Table I-1 of Appendix I in Exh. No. CA-2 at 167-68, incorrectly identifies the following entities as having scheduled false load during the following periods. (1) the Cities of Anaheim and Pasadena in the May 1 through October 1, 2000 period; (2) the Cities of Anaheim, Riverside, and Pasadena, as well as Duke Energy and Puget Sound in the October 2, 2000 through January 17, 2001 period; and (3) the Cities of Anaheim and Pasadena, and El Paso Power Services in the January 18 through June 19, 2001 period. Exh. No. CA-349 at 62-63. Second, Dr. Fox-Penner's screening analysis regarding the double-selling of Ancillary Services, Exh. No. CA-2, Appendix H, Table H-1 at 165, incorrectly identified Edison as having engaged in double-selling during one month in the summer of 2000. This too is incorrect and results from an error by the ISO in treating the Ellwood plant as being owned by Edison, when in fact, it was owned by Reliant. Thus, the results presented regarding Edison on Table H-1 should have been attributed to Reliant.

⁸ Hamal Testimony at 2:17-21.

⁹ Hamal Testimony at 4:8-10.

¹⁰ Hamal Testimony at 5:3-6.

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None of these rationalizations is effective, because Mr. Hamal's client did not "follow the rules." The Commission has already found that Reliant intentionally withheld power from the PX in a "market power play" to increase prices on June 21-22, 2000.¹¹ Reliant withheld power from the PX to increase PX spot and forward prices; bid to buy power from the PX day-ahead market in order to raise prices; and misrepresented its behavior to the ISO, the Commission, and Congress.¹²

As the California Parties have shown, Reliant's misconduct was not limited to the two days already identified by the Commission. Dr. Berry's testimony demonstrates that Reliant exercised market power throughout the summer of 2000. It was one of many sellers that used periods of no bidding followed by elevated bids during ISO-declared emergencies or high demand periods.¹³ Dr. Hanser confirms that Reliant falsely reported some of its units as being unavailable, even during ISO-declared emergencies, when Reliant's own records showed that those units were available.¹⁴ Dr. Reynolds' analysis showed that even if Reliant's reported outages were treated as legitimate, Reliant

¹¹ See Order Approving Stipulation and Consent Agreement, 102 FERC ¶ 61,108 (2003). The order provides that Reliant's commitment to pay \$13.8 million to purchasers in the PX market under the Consent Agreement does not limit the ability of buyers to pursue remedies in this proceeding for those two days. In fact, the \$13.8 million will not come close to making the buyers whole, as it does not reflect the impact of Reliant's misdeeds on ancillary services markets and the ISO markets for those two days. Nor did the calculation reflect the fact that at the same time that Reliant reduced supply into the PX day-ahead market, it also submitted a price taker demand curve into the PX day-ahead market on both June 21 and 22, 2000, further reducing day-ahead supply into the PX.

¹² Exh. No. CA-3 at 22:2-5.

¹³ Exh No. CA-7 at 27-47 (summer of 2000).

¹⁴ Exh. No. CA-9 at 26-34.

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engaged in significant levels of withholding in the ISO real-time market over substantial periods of time during May 1, 2000 through June 20, 2001.¹⁵ Dr. Fox-Penner (1) reported that Reliant engaged in “double-selling” of ancillary services; (2) found Reliant to be one of the major generators bypassing the ISO auction markets with significant uninstructed generation; (3) identified evidence showing that Reliant arranged “camouflage” transactions to hide its megawatt laundering; and (4) showed that Reliant shared market information with competitors so that they could collectively profit from their conduct.¹⁶ The California parties also submitted documents demonstrating that Reliant refused ISO dispatch instructions and intentionally did not follow ISO rules.¹⁷

And Reliant’s market manipulation was not limited to electric markets. Dr. Harris has provided evidence that Reliant engaged in a pattern of high-priced natural gas wash trades in the winter of 2000 -- the period when the daily index prices for California reached unheard-of levels.¹⁸ Indeed, transactions between Reliant and Enron at Southern California delivery points accounted for a significant proportion of high-priced wash trades in December 2000, at the peak of the California spot price spikes.

In Mr. Hamal’s words, “market manipulation” is:

¹⁵ Exh. No. CA-5 at 9:13-10:12.

¹⁶ Exh. No. CA-1 at 86:32-87:8.

¹⁷ Exh. No. CA-349 at 66:10-72:10.

¹⁸ Exh. No. CA-15 at 11: 6-12:2.

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the willful action of a market participant to materially distort prices in anticipation of increased profits by violating market rules, regulations, tariffs or laws in effect at the time.¹⁹

Reliant's actions meet this definition. It deliberately engaged in significant levels of withholding and employed a wide range of manipulation strategies to subvert the ISO's rules for bidding and RMR dispatch in order to divert its units from the day-ahead market to the real-time market so as to maximize profits in violation of the market rules, applicable tariffs, and Commission orders. In light of the evidence, it is no wonder that Mr. Hamal limits his analysis to market fundamentals and does not address Reliant's actual practices.

2. Mirant

Like Mr. Hamal, Drs. Hogan and Harvey, on behalf of Mirant, blame the inefficient design of the markets coordinated by the ISO and PX for the incredible prices. They argue that one must separate the effects of market design, bidding under uncertainty, environmental restrictions, energy limits, dispatch constraints, and shortages from the exercise of market power.²⁰ They do not claim to address all price influences, acknowledging that there are circumstances in which particular entities might find it profitable to exercise market power. Rather, they attempt to raise the bar for any finding of market manipulation, challenging "those who assert that there were strong incentives to exercise market power or that a material amount of economic withholding occurred . . .

¹⁹ Hamal Testimony at 8:4-7.

²⁰ Exh. No. MIR-1 at 109:4-7.

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to provide concrete evidence that the exercise of market power was a constant material factor that accounts for a large portion of the price changes during 2000 and 2001.”²¹

The California Parties have met this challenge, nullifying the abstract presentations and theoretical conclusions of the sellers’ experts. Dr. Berry’s analysis of Mirant’s bidding behavior shows that throughout the May-September 2000 period, Mirant bid far in excess of its costs in order to inflate prices.²² She also shows that Mirant exercised market power during the same period.²³ Its bidding patterns reflected a strategy to withhold supply for the purpose of increasing prices.²⁴

Dr. Hanser demonstrated that Mirant continued to report its units as unavailable after the end of outages, even as the ISO issued Stage 1, Stage 2, and Stage 3 alerts.²⁵ Dr. Reynolds’ analysis showed that Mirant engaged in significant levels of withholding in the ISO real-time market.²⁶ Further, as discussed by Dr. Fox-Penner, Mirant actively engaged in Ricochet transactions, Death Star, Double-Selling Ancillary Services, Fat Boy, and Uninstructed Generation Games.²⁷ Among other strategies, Mirant used

²¹ Exh. No. MIR-1 at 163:4-11.

²² Exh. No. CA-7 at 48:8-18.

²³ Exh. No. CA-7 at 48-63.

²⁴ Exh. No. CA-7 at 54:6-9.

²⁵ Exh. No. CA-9 at 23; 28.

²⁶ Exh. No. CA-5 at 9:13-10:12.

²⁷ For instance, Table I-1 of Dr. Fox-Penner’s testimony shows that Mirant, along with other importing sellers, persistently overscheduled load in order to evade ISO rules. Exh. No. CA-1 at 167:8-37.

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intentional uninstructed generation, exceeding metered generation by between thirteen and twenty-three percent on a portfolio basis during the Summer of 2000.²⁸ It also participated in multi-party Ricochets and frequently “flipped” transactions, purchasing power from one marketer and immediately reselling it at a significant markup.²⁹

Drs. Hogan and Harvey address none of these practices in their testimony. The only reasonable conclusion from the evidence and data is that Mirant violated applicable tariffs, regulations, orders, and statutory requirements by engaging in a pattern of systematic market manipulation.

3. Powerex

Dr. Fred Pickle for Powerex focuses on explaining high prices through an analysis of hydro levels in the West.³⁰ However, he ignores Powerex’s contemporary press releases, showing that hydro conditions were not unusual during much of the period.³¹

Dr. Richard D. Tabors defends Powerex’s widespread and prolonged use of the Fat Boy strategy as a “rational economic response” to so-called underscheduling by the California IOUs.³² Dr. Tabors apparently neither reviewed nor analyzed data from Powerex which shows that Powerex deliberately and knowingly engaged in withholding

²⁸ Exh. No. CA-1 at 179:34-180:7.

²⁹ Exh. No. CA-1 at 122:1-38.

³⁰ Exh. No. PWX-1.

³¹ Exh. No. CA-1 at 115:4-40.

³² Exh. No. PWX-24 at 3:11-12.

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and market manipulation strategies. Dr. Berry shows that Powerex used hockey stick bidding and spiked its bids into the ISO real-time market during ISO-declared emergencies and other periods when supply was perceived as tight.³³ The ISO found that Powerex manipulated the ISO's target price for real-time energy through its bidding strategies.³⁴ Powerex has admitted that it used its bids to send "signals" to other market participants. And when other sellers did not respect Powerex's market dominance, such as its efforts to "own NOB," Powerex used bids to "discipline" its competitors.³⁵

In addition, Dr. Fox-Penner demonstrates that Powerex was a persistent user of the Ricochet strategy, exporting power and re-selling it back to California at prices as high as \$1400/MWh. As a result of Ricochet trading, Powerex reported trading profits in excess of \$1 billion a year.³⁶ Powerex e-mails show that the Ricochet transactions were part of a concerted strategy to buy out of the day-ahead markets in California and resell in real time -- notwithstanding Powerex's denials in its responses to the Commission in Docket PA02-2. Significantly, Powerex appears to have violated its export license under Section 202(e) of the FPA by exporting power to Canada during ISO-declared emergencies.

³³ Exh. No. CA-7 at 103-115.

³⁴ Exh. No. CA-7 at 112-113. Powerex would submit false load information in conjunction with the "target price" game. In essence, Powerex was submitting price-taker bids, but at the same time engaging in bidding practices that would manipulate the payment that a price taker would receive. Exh. No. CA-349 at 57:3-19; Exh. No. CA-176 at 296.

³⁵ Exh. No. CA-349 at 62:18-64:8.

³⁶ Exh. No. CA-196 at 1.

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Powerex was a prolific user of Fat Boy, scheduling false load and withdrawing supplies from the day-ahead market in order to benefit from high, manipulated prices in the ISO real-time market. Dr. Fox-Penner notes that discovery yielded so many documents concerning Powerex's use of Fat Boy that he was unable to quote them all.³⁷ Dr. Fox-Penner also discusses documents showing that Powerex engaged in other games, such as Death Star and Cut Schedules, receiving payments for relieving transmission congestion even though no congestion was actually relieved and no power actually flowed.³⁸ Powerex also was a major seller of OOM power.³⁹ The ISO concluded that Powerex intentionally declined to bid power into the ISO real-time market during a high-price, high-load episode and instead waited until the ISO was forced to call it for an OOM purchase at a much higher price.⁴⁰ Powerex's strategy was to buy day-ahead to create scarcity, avoid the organized real-time markets, and make a significant profit in the OOM market.

The evidence shows that Powerex had the incentive and ability to manipulate the price of power and, in fact, exercised market power to do so. This evidence simply cannot be ignored or explained away as reflecting "market fundamentals."

³⁷ Exh. No. CA-349 at 65:5-18

³⁸ Exh. No. CA-1 at 5-8.

³⁹ Exh. No. CA-1 at 111:1-25.

⁴⁰ Exh. No. CA- 237 at 2.

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4. Burbank, Glendale, IID, and Turlock

According to Dr. Wilson, testifying on behalf of Burbank, Glendale, Imperial Irrigation District (IID), and Turlock Irrigation District (Turlock), market manipulation:

generally involves an attempt to interfere with the normal operation of a market through conduct that is deliberately intended to interfere with free play of supply and demand typically forcing price to an artificial level. It often involves the dissemination of false and misleading information or the implementation of contrived and artificial trading practices that are intended to mislead other market participants about value and thus create a fabricated opportunity for the perpetrator to exploit the market.⁴¹

Dr. Wilson asserts that Burbank, Glendale, IID, and Turlock did not engage in market manipulation because they were unable to influence market prices, and thus did not cause artificially high prices.⁴² Witness Paul G. Scheuerman contends that Burbank, Glendale, and Turlock never engaged in the strategies outlined in the Enron Memoranda.⁴³

The evidence presented by the California Parties shows that these sellers did just that. Dr. Wilson's purely theoretical objection has no force: as Dr. Fox-Penner explains, any seller could become "pivotal," *i.e.*, could unilaterally profitably raise prices by withdrawing capacity.⁴⁴ And neither Dr. Wilson nor Mr. Scheuerman can contradict the data and documents made available through discovery regarding the activities of these entities. The documents show that Glendale cooperated with Enron in implementing the

⁴¹ Exh. No. BGT-2 at 7:18-8:6.

⁴² Exh. No. BGT-2 at 51:19-21.

⁴³ Exh. No. BGT-1 at 11:16-12:8.

⁴⁴ Exh. No. CA-1 at 25:9-25.

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Enron strategies, even training its traders with tests of their ability to implement Fat Boy strategies.⁴⁵ Glendale similarly worked with Coral and developed schemes to market “phantom ancillary services.”⁴⁶ Burbank used Sempra as its Scheduling Coordinator, and Sempra, in turn, used Enron strategies, including Fat Boy.⁴⁷ Turlock entered into parking arrangements with other suppliers, allowing them to engage in megawatt laundering without detection.⁴⁸ Dr. Wilson and Mr. Scheuerman simply ignore this evidence.

5. Avista, BP, IDACORP, Puget, TransAlta, and TransCanada

Dr. Cicchetti testifies for Avista, BP Energy, IDACORP Energy, Puget Sound Energy, TransAlta, and TransCanada (collectively, Marketers). Like the other suppliers’ experts, Dr. Cicchetti asserts that fundamental economic factors, not market manipulation, are to blame for the incredible prices.⁴⁹ Without performing any analysis of the Marketers’ behavior, Dr. Cicchetti states that virtually all pricing during the discovery period is explained by fundamental economic forces.⁵⁰

Of course, Dr. Cicchetti did not examine the data and documents that have come to light regarding the Marketers.⁵¹ For instance, Puget Sound Energy was one of the top

⁴⁵ Exh. No. CA-170 at 1-6.

⁴⁶ Exh. No. CA-1 at 45:1-10.

⁴⁷ Exh. No. CA-1 at 166:32-37

⁴⁸ Exh. No. CA-1 at 46:1-10.

⁴⁹ Exh. No. MAR-1 at 10:18-21.

⁵⁰ Exh No. MAR-1 at 69-70.

⁵¹ Exh. No. MAR-1 at 69:21-70:2.

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users of Ricochet strategies.⁵² Avista used parking agreements to enable such Ricochet transactions, including arrangements with Chelan, Riverside, and Turlock.⁵³ The latter two agreements raise serious additional concerns, because they call for strategic collaborations and extensive sharing of information between competitors.⁵⁴ Avista also coordinated with other suppliers to withhold supply from the ISO⁵⁵ and engaged in other market manipulation strategies, including Death Star and Get Shorty.⁵⁶

These trading strategies were not simply permissible arbitrage. They were used to facilitate the exercise of market power and to enhance the impact of other strategies. The harm from these strategies is not theoretical: their impact was a significant detriment to system costs and reliability.⁵⁷ Applying Dr. Cicchetti's own definition of market manipulation, these entities were engaged in manipulative trading strategies for the purpose of economic gain at the expense of other market participants.

B. True Scarcity, the Impact of Fundamentals, and Other Purported Beneficial Aspects of Seller Behavior Are Already Reflected in the Commission's MMCP Methodology

⁵² Table D-1 in Dr. Fox-Penner's testimony shows that from May 1, 2000 through June 19, 2001, of the 17 Scheduling Coordinators with matching exports and imports, Puget Sound Energy accounted for 14 percent of such transactions by volume (275,000 MW during 1958 hours), second only to Powerex. Exh. No. CA-2 at 65.

⁵³ Exh. Nos. CA-100, CA-103, and CA-104 respectively.

⁵⁴ Exh. No. CA-1 at 46:1-47:40.

⁵⁵ Exh. No. CA-349 at 69:12-71.

⁵⁶ Exh. No. CA-1 at 132:22-133:32.

⁵⁷ Exh. No. CA-349 at 48:5-53:2.

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Mirant, Powerex, Reliant, the Competitive Supplier Group (CSG), and BGIT collectively devote hundreds of pages to fundamentals and scarcity. Their respective presentations fail for an important reason: the California Parties' requested relief -- recalculating prices based on the Commission's Mitigated Market Clearing Prices (MMCP) for the May 1 to October 1, 2000 period (in addition to the October 2, 2000 through June 20, 2001 period already covered by the Commission (Refund Period)) -- already takes scarcity and fundamentals into account.

The prices to be derived under the Commission's MMCP methodology reflect both the real availability of power (based on the units that were actually dispatched in the ISO imbalance market) and a calculation of the cost of producing that power (factoring in the fundamentals such as gas pricing). In announcing the MMCP methodology, the Commission held that the calculation of the appropriate MMCP would "require that the ISO determine the last unit dispatched (the marginal unit) by selecting from the actual units dispatched in real-time" ⁵⁸ Thus, by determining the marginal cost of the least efficient unit running, the MMCP methodology already reflects the scarcity principles that are discussed in the sellers' presentations.

During periods of tight supply, whether because of seller withholding, high demand, low hydro, nuclear outages, or some other reason, the ISO would have had to call upon less efficient, more expensive units. In such instances, the unit with the highest

⁵⁸ *San Diego Gas & Elec. Co.*, 96 FERC ¶ 61, 120 at 61,517 (2001) (*July 25 Order*); see also December 19 Rehearing Order, 97 FERC at 62,178 (under the MMCP Methodology "[h]ourly mitigated prices . . . [are] developed using the marginal costs of the last unit dispatched to meet load in the ISO's real-time market").

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marginal cost would necessarily establish the MMCP for the interval in question. For example, if supply conditions required the ISO to call on less efficient units with a 12,000 Btu/kWh heat rate rather than a 10,000 Btu/kWh heat rate, the need to call on a twenty percent less efficient unit will be automatically factored into the MMCP calculation. Sellers do not support such an approach, as the actual heat rate numbers give the lie to their claims with respect to scarcity. Nonetheless, this does not change the fact that the effect of scarcity is already factored into the MMCP calculation. To the extent that prices exceeded the MMCP, the explanation simply cannot be scarcity no matter how frequently the sellers repeat this mantra.

Not only does the MMCP approach capture scarcity, it overstates its impact, and thus benefits sellers. The MMCP methodology reflects the marginal cost of the least efficient unit that was running; it does not reflect the marginal cost of the least efficient unit that could have been running.⁵⁹ The analyses performed by Dr. Reynolds and Mr. Hanser in the March 3 Filing⁶⁰ demonstrate that a substantial amount of economic generation was not made available during high-priced periods between May 1, 2000 and June 20, 2001. MMCPs that reflect those units that could have been dispatched, but were not, would produce a more competitive result, and would dampen the effects of seller

⁵⁹ As Dr. Stern noted in his March 3 Testimony, “the MMCP methodology *assumes* that a competitive market would have cleared at the marginal cost of the least efficient unit running. . . .”⁵⁹

⁶⁰ Exh. No. CA-5; Exh. No. CA-9.

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withholding. However, the MMCPs proposed by the California Parties,⁶¹ consistent with the approach taken by the Commission in fashioning the MMCP methodology for the Refund Period, do not account for the effects of such withholding.⁶² By ignoring the effects of seller withholding, the California Parties' suggested remedy overstates scarcity and thereby understates the remedy.

In addition to capturing scarcity, the MMCP methodology also captures the other fundamentals so beloved by the sellers. The MMCP methodology, as proposed to be revised by the Commission Staff and the California Parties, incorporates a reasonable measure of gas prices, and allows for full recovery of legitimate emissions costs. Any seller who experienced costs higher than those incorporated into the MMCP is permitted to make a portfolio cost-of-service filing for the period.⁶³ Sellers do not favor the use of the MMCP methodology because, outside of the abstract realm of their economic experts, the fundamentals do not -- and cannot -- explain the prices that the sellers charged. But to the extent that the fundamentals do justify relatively higher prices, such prices are already reflected in a higher MMCP and sellers are authorized to keep that increase under the MMCP methodology.

⁶¹ Nothing herein is intended to waive any claim either at the Commission or on appeal that the MMCP methodology adopted by the Commission should have reflected those units that could have been dispatched, but were not.

⁶² July 25 Order, 96 FERC at 61,517.

⁶³ *Id.* at 61,518 (“[i]f sellers in California . . . do not believe that these prices sufficiently cover their costs, they can file for cost-of-service rates covering all of their generating units in the WSCC for the duration of the mitigation period and including the refund period”).

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As the Commission has held, units that are “actually dispatched in the markets . . . have specific marginal costs that are reasonably recovered under [the MMCP] methodology.”⁶⁴ By ensuring the reasonable recovery of marginal costs of units that were known to be actually running during the May 1, 2000 to October 1, 2000 period, the MMCP methodology incorporates market fundamentals and scarcity, thus capping prices at an approximation of the maximum price that would have prevailed absent seller market abuse.

C. The Sellers’ Quantitative Analyses of Market Fundamentals and Design Flaws are Invalid

Drs. Harvey and Hogan and Dr. Cicchetti present quantitative analyses that that purport to show that market fundamentals and design flaws explain the high prices. These analyses, however, in addition to being contrary to fact, are so riddled with analytical flaws and biases as to render them completely invalid.

Drs. Hogan and Harvey, testifying for Mirant, contend that market forces and policy decisions in California “can account for both the increase in prices beginning in the spring of 2000 and the decline in prices in the summer of 2001.”⁶⁵ But, as Dr. Fox-Penner shows, their own data system actually contradicts their conclusions. In fact, prices fail to track the purported drivers. For example, prices did not track changes in demand, nor did price increases coincide with periods when load levels rose above normal levels. Moreover, Drs. Hogan’s and Harvey’s own data as to hydro conditions

⁶⁴ July 25 Order, 96 FERC at 61,517.

⁶⁵ Exh. CA-349-17.

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show that shortfalls in hydro generation were just as large, or larger, in months with low prices as in months with higher prices. Indeed, demand net of hydro generation -- a key fundamental proffered by Drs. Hogan and Harvey -- remained high in the summer of 2001 even when prices were much lower than they had been.⁶⁶ Using the data submitted by Drs. Hogan and Harvey, Dr. Fox-Penner shows, with respect to each fundamental, that there is no meaningful correlation with the price levels actually attained in the market.

Drs. Hogan and Harvey also fail to acknowledge that some of their claimed “fundamentals” may themselves have been tools for the exercise of market power. For example, Dr. Fox-Penner cites growing evidence that NOx emissions prices may have been manipulated by sellers to drive up marginal electricity costs.⁶⁷ And the natural gas price indices that Drs. Hogan and Harvey rely upon have been shown to be the product of manipulation as well. On this latter point, Drs. Hogan and Harvey seek to support the use of the California border gas indices by relying on a paper that Mirant previously submitted to the Commission that was prepared by Dr. Reishus and Mr. Wang. As Dr. Harris shows, however, that paper is entirely self-serving and invalid, suffering from at least eight fatal flaws.⁶⁸

Dr. Cicchetti, testifying for Marketers, also presents a quantitative analyses that purports to show that California’s excessive prices were the result of market

⁶⁶ Exh. No. MIR-1 at 6:15-18.

⁶⁷ Exh No. CA-350.

⁶⁸ Exh. No. CA-358 at 4-10.

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fundamentals. His testimony attributes ninety-five percent or more of the price variation in the California markets to benign economic and market forces. As Dr. Lewbel explains, however, Dr. Cicchetti's analysis is fundamentally illogical and has no analytical validity because his conclusions assume, without evidence, that all of the variation in his variables is due to market forces and is uncorrelated with any market manipulation.⁶⁹ For example, Dr. Cicchetti created a dummy variable for his study, called "com_flaw" which purportedly measured market design flaws. Dr. Cicchetti then arbitrarily assigned large portions of the price of electricity to this variable during high-price periods. By creating a dummy variable to explain high prices, he preordained the result -- that his asserted fundamentals including his arbitrary assignment of responsibility to "design flaws" -- would explain the high prices. The Cicchetti analysis deserves no credence.

III. THE SELLERS' ARGUMENT THAT THEY WERE FREE TO EMPLOY ANY AND ALL STRATEGIES TO INCREASE THEIR PROFITS IS CONTRADICTED BY THE ISO AND PX TARIFFS AND OTHER LEGAL REQUIREMENTS

A. The ISO and PX Tariffs, Scheduling Coordinator Agreements, Participating Generator Agreements, and Other Agreements Impose Binding Legal Obligations on the Sellers

Mirant, Powerex, Reliant, CSG, and BGIT claim that there were few rules that governed the sellers' ability to maximize their profits during the January 1, 2000 to June

⁶⁹ Exh. No. CA-356 at 4-5.

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20, 2001 period.⁷⁰ To adopt this line of reasoning, one would have to accept that the ISO and PX spot markets were not governed by Commission-jurisdictional tariffs, contractual agreements authorizing market participants to transact in such markets, reliability requirements imposed across the entire Western United States, Commission orders, and provisions of the Federal Power Act. If the Commission were to agree with sellers and accept this reasoning, it would effectively nullify seven decades of federal electric power regulation with one fell swoop.

In their March 3 Filing, the California Parties explained that there were rules that governed market behavior, and that the sellers repeatedly violated these rules. Some of the rules identified by the California Parties in their March 3 Filing that were violated by the sellers include:

- Section 2.1.1 of the ISO Market Monitoring and Information Protocols (MMIPs); Section 2.1.1 of the PX Market Monitoring rules (MMRs). These provisions define “anomalous market behavior” as “behavior that significantly departs from the normal behavior in competitive markets.”⁷¹ Withholding of generation, unexplained reductions in generator availability, Ricochet transactions, and congestion games are examples of “anomalous market behavior” identified by the California Parties.⁷² Generators were on notice prior to the January 1, 2000 - June 20, 2001

⁷⁰ See, e.g., Reliant Filing at 27 (stating that Reliant's penalized withholding of generation on June 20-21, 2000 was “not a violation of the FPA or of tariffs or regulations in effect at the time the incident occurred. ”); Powerex Filing, at 26-27 (stating that Powerex's trading practices “did not contravene the CAISO or CalPX tariffs, market rules or the Commission's orders... ”); Mirant Filing, at 42-44 (arguing that retroactive refunds are not available where a public utility has complied with all of the Commissions rules, regulations and tariff provisions); BGIT Filing, at 53-54.

⁷¹ March 3 Filing at 44.

⁷² *Id.* at 37, 44, 60-61, 53.

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period that such behavior would be subject to scrutiny for possible remedial action.

- Section 2.1.3 of the ISO MMIPs; Section 2.1 of the PX MMRs. These provisions define “gaming” as “taking unfair advantage of the rules and procedures set forth in the PX or ISO Tariffs, Protocols or Activity Rules, or of . . . other conditions that may affect the availability of transmission and generation capacity . . . or actions or behaviors that may otherwise render the system and the ISO markets vulnerable to price manipulation to the detriment of their efficiency.”⁷³ The March 3 Filing identified generator withholding, high bid strategies of the sellers, as well as several manipulation games, such as the submission of false load schedules, megawatt laundering, Death Star and its variants, the double selling of Ancillary Services, and uninstructed generation, as examples of gaming. As with anomalous market behavior, the sellers cannot be heard to argue that they were unaware that such practices could constitute gaming under the ISO and PX Tariffs.
- Sections 5.5.1, 5.5.3, and 5.3 of the ISO Tariff. These provisions require requirements that Participating Generators report outage information to the ISO.⁷⁴ The March 3 Filing documented numerous instances where the five largest generators did not fully comply with these provisions.
- Section 5.4 of the ISO Tariff. This provision requires sellers to meet all applicable Western Systems Coordinating Council (WSCC)⁷⁵ standards, and to comply with the requirements of the WSCC Reliability Criteria.⁷⁶ The WSCC Reliability Criteria establishes Minimum Operating Reliability Criteria (MORC) that require all system participants to maintain system reliability.⁷⁷ The March 3 Filing explained how these requirements were evaded by strategies that included withholding tactics, submitting either no bids or high bids during system emergencies, placing generation on reserve

⁷³ MMIP 2.1.3.

⁷⁴ March 3 Filing at 36 n. 109.

⁷⁵ The WSCC is now the Western Electricity Coordinating Council (WECC).

⁷⁶ ISO Tariff, §§ 5.4.1-5.4.3.

⁷⁷ March 3 Filing at 36-37, 45-46.

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shutdown during system emergencies, and by not bringing generation back on-line in a timely fashion after outages.⁷⁸

- Section 2.2.7.2 of the ISO Tariff. This tariff provision requires a Scheduling Coordinator to submit schedules relying on “forecast demand” to the ISO in the day-ahead and hour-ahead markets.⁷⁹ Section 2B of the ISO Scheduling Coordinator Agreement provides that Scheduling Coordinators agree to be bound by the terms and conditions of the ISO Tariff.⁸⁰ The March 3 Filing detailed how the scheme of submitting false load schedules, based on phantom load in excess of “forecast demand” as part of the Fat Boy strategy, violated this requirement.
- Section 2.5.22.11 of the ISO Tariff. This provision entitled, Failure to Conform to Energy Dispatch Instructions, provides that those Scheduling Coordinators that are providing Ancillary Services to the ISO shall “be available and capable of doing so. . .”⁸¹ This requirement is echoed in Section 4.3.1 of the ISO Participating Generator Agreement that directs the Participating Generators that submit ancillary service bids to “warrant” that they are capable of providing the service in accordance with the ISO Tariff.⁸² As the California Parties noted in the March 3 Filing, violations of these rules were triggered by the Get Shorty strategy of selling Ancillary Services in the day-ahead market when the seller actually had no Ancillary Services capacity to offer.
- Section 20.3 of the ISO Tariff. This provision requires market participants to keep certain types of information confidential. One such category of confidential information is individual generator outage information. The

⁷⁸ *Id.* at 37. In addition, one seller, Powerex, violated its Section 202(e) export authorization which, by its terms, limits such authorization to the extent that “a continuation of those exports would impair or tend to impair the reliability of the U.S. electric power supply system.” *See* Exh. No. CA-63, Ordering Paragraph (K). Powerex is currently operating under a five year export authorization that was granted on February 23, 2000.

⁷⁹ *Id.* at 47-48.

⁸⁰ *Id.* at 47-48.

⁸¹ *Id.* at 63-64.

⁸² *Id.* at 64.

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March 3 Filing explains how this rule was violated by the sharing of such information through IIR.⁸³

- Violation of the Commission's "No Pay" Orders. These orders accepted Amendment No. 26 to the ISO Tariff. The purpose of Amendment No. 26 was to eliminate payments for uninstructed double-selling by internal resources, and is otherwise known as the "No Pay" policy. In approving the ISO's proposal, the Commission noted that the No Pay policy would "ensure that Ancillary Service providers will have no economic incentive to dishonor their commitments and a strong incentive to honor them."⁸⁴ The March 3 Filing showed how three of the five largest generators consistently violated the No Pay policy.⁸⁵
- Section 203 of the Federal Power Act (16 U.S.C. § 824a (2000)). The March 3 Filing detailed numerous contractual and profit sharing arrangements among sellers. These extensive arrangements should have been made known to the Commission and the public in public filings under Section 203 of the FPA, but were not.

While these rules were violated by different groups of sellers, the totality of the transgressions documented by the California Parties reveals that, at virtually every turn, the sellers exploited and evaded the prevailing rules for financial advantage.⁸⁶ Several of these infractions involved lies, plain and simple, including providing false and misleading information to the ISO and PX for the purpose of financial gain. Such behavior cannot

⁸³ March 3 Filing at 69-75.

⁸⁴ *California Independent System Operator Corp.*, 86 FERC ¶ 61,122 (1999), *reh'g denied*, 101 FERC ¶ 61,021 (2002).

⁸⁵ March 3 Filing at 61-62.

⁸⁶ BGIT further asserts that as municipalities they are not subject to the ISO's rules. In the July 25 Order, however, the Commission expressly found that municipalities are subject to the ISO's rules. July 25 Order, 96 FERC at 61,512-13. Thus, BGIT's argument is without merit.

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be countenanced in a regulated market in which sellers' violations of the rules have billions of dollars in consequences.

That these behaviors were not permissible is shown by the fact that such behavior has caused two former Enron traders, Timothy Belden and Jeffrey Richter, to plead guilty to criminal charges. The traders have admitted that they engaged in a "series of fraudulent schemes" including the submission of "false information to the PX and the ISO."⁸⁷ For example, they filed energy schedules that "misrepresented the nature of the electricity" that Enron was to supply and the load that it intended to serve, and they intentionally filed schedules "designed to artificially increase congestion on California transmission lines."⁸⁸ As the California Parties demonstrated in their March 3 Filing, other sellers also engaged in the kinds of activities for which Messrs. Belden and Richter have pled guilty to criminal charges.⁸⁹

Both Mirant and Reliant attempt to justify their bidding schemes as consistent with competitive behavior.⁹⁰ However, their explanations are belied by the Commission's own orders and the related strategies that each entity adopted during the relevant period.

⁸⁷ Exh. No. CA-229 at 3; Exh. No. CA-206 at 3.

⁸⁸ *Id.*

⁸⁹ *See* Exh. No. CA-205; Exh. No. CA-207.

⁹⁰ Mirant Filing at 23-28 (arguing that bidding above incremental production costs does not demonstrate an illegal exercise of market power through economic withholding and can be consistent with perfectly competitive behavior); Reliant Filing at 15 (claiming that there was no requirement in any of the applicable tariffs during the relevant period that sellers bid in any particular fashion, and that the April 26th Order preventing "hockey stick" bids has not even been adopted or clearly defined).

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The Commission ruled in April 2001 that “hockey stick” bids and bids that were not supported by marginal costs were “anticompetitive”.⁹¹ Two months later, in its June 19, 2001 Order, the Commission affirmed its prohibition on such bidding practices, holding that it “w[ould] not tolerate abuse of market power or anticompetitive bidding or behavior.”⁹²

When considered in conjunction with other behavior, such as providing false information to the ISO and the PX, the sellers’ bidding patterns during the relevant period plainly reflect behavior designed to “tak[e] unfair advantage” of the ISO and the PX rules. As such, their bidding behavior was part of a pattern of gaming as defined in Section 2.1.3 of the ISO MMIPs and Section 2.1.4 of the PX MM. This behavior also was inconsistent with the obligations of honesty in fact and fair dealing that are incorporated in ISO and PX tariffs.⁹³ As Scheduling Coordinators and Participating Generators under the ISO and PX Tariffs, and Participants under the PX Tariff, Mirant and Reliant were obligated to follow the ISO and PX Tariffs. The argument that their bidding practices during the relevant period were legitimate because the Commission did

⁹¹ Order Establishing Prospective Mitigation and Monitoring Plan for the California Wholesale Electric Markets and Establishing an Investigation of Public Utility Rates in Wholesale Western Energy Markets. *San Diego Gas & Elec. Co., et al.*, 95 FERC ¶ 61,115 at 61,360 (2001) (*April 26th Order*).

⁹² Order on Rehearing of Monitoring and Mitigation Plan for the California Wholesale Electric Markets, Establishing West-Wide Mitigation, and Establishing Settlement Conference, *San Diego Gas & Elec. Co., et al.*, 95 FERC ¶ 61,418, at 61,565 (2001) (*June 19th Order*).

⁹³ March 3 Filing at 12-14 (discussing duty of good faith).

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not expressly prohibit until them in the Spring of 2001 is simply wrong.⁹⁴ The same rationale that prompted the Commission to disallow, and to propose possible remedies for, such bidding behavior for the post-June 20, 2001 period compels a similar result for the May 1, 2000 to June 20, 2001 period.

In short, by devising schemes to submit false information to the ISO and the PX for the purpose of: (1) obtaining prices above the prevailing price caps; (2) obtaining excess congestion payments; and (3) obtaining increased revenues, the sellers behaved as if there were no applicable rule. Even now they maintain this position and have put forward highly technical rationalizations as to why the rules did not apply. In light of the physical and financial hardship caused by the events of 2000-2001, this position is incomprehensible. Simply put, the evidence is clear that the sellers' behavior was unlawful and in violation of applicable tariffs.

B. Sellers Have Long Been On Notice that Their Conduct Was Being Evaluated and Was Subject to Sanctions

Sellers have long been on notice that their actions would be scrutinized by market monitors and by the Commission.⁹⁵ The potential for scrutiny was also recognized by the sellers themselves, when they submitted pleadings in early 2000 seeking the elimination of the market monitoring protocols in hopes of clearing the way for their behavior later

⁹⁴ Cf. Peter H. King, *Paper Trail Points to Roots of Energy Crisis*, LA TIMES at A27 (June 16, 2002) (quoting Jan Smutney-Jones concerning the strategies outlined in the Enron Memoranda: "This window doesn't have a sign on it that says do not throw a rock through it, but most people have common sense that you don't throw rocks through windows").

⁹⁵ See, e.g., *Pacific Gas and Electric Co., et al.*, 81 FERC ¶ 61,122, at pp. 61,435-36 (1997).

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that year.⁹⁶ The California Parties' March 3 Filing included many of the studies by the market monitors and others, detailing, even before the summer of 2000, the potential for exercises of market power.⁹⁷ These reports and studies identify specific examples of market manipulation, misbehavior, and exercises of market power, thus providing sellers with ample notice of improper conduct subject to sanction.

IV. THE BUYERS' APPROPRIATE ACTIONS TO REDUCE THEIR EXCESSIVE COSTS DO NOT JUSTIFY MARKET MANIPULATION BY SELLERS

A. The California Parties Have Shown that IOU "Underscheduling" Was a Symptom, Not a Cause, of the Problems in the California Markets

Predictably, the sellers protest that the market manipulation detailed in the California Parties' March 3 Filing was the sellers' reaction to the "underscheduling" tactics of the buyers -- particularly the three investor-owned utilities (IOUs). Coming from those who profited so vastly from the Western energy crisis, these claims are as offensive as they are baseless. To date, none of the sellers' experts has addressed what actually happened in the markets, and several of them have made obvious and fundamental errors in their analyses.

By contrast, Dr. Stern's testimony establishes the facts beyond dispute: it was not buyer underscheduling, but seller withholding, that shifted energy from the PX day-ahead

⁹⁶ See, e.g., Joint Initial Brief of The Western Power Trading Forum, Enron Power Marketing, Inc. and Dynegy Power Marketing, Inc on Market Monitoring Issues, dated February 14, 2000 in Docket No. ER98-3760, *et al.* (the "unresolved issues" proceeding) (arguing, among other things, that the ISO should not be permitted to review or sanction "anomalous market behavior").

⁹⁷ See, Section IV of the California Parties March 3 Filing at pages 108-13.

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market to the ISO real-time market. Sellers in the California markets, as a group, offered far less power in the PX market in the summer of 2000 than they had in the corresponding months in 1999. The gap, which opened in June 2000, grew to 6,000 MW per day in July 2000, then 8,000 MW per day in August, and again 6,000 MW per day in September.⁹⁸ As a result, IOU buyers could not have satisfied their demand in the day-ahead market, even if they had been willing to pay the maximum price for every MW they purchased. Moreover, such a bidding curve, which would have violated the PX's bidding rules, would have produced little additional supply, and far higher costs for consumers.⁹⁹

Nor are these circumstances the result of underlying “fundamental factors” or “market design.” Quite plainly, they are the product of conscious decisions by sellers to withhold supply from the day-ahead market in order to reap greater profits in the real-time market.¹⁰⁰ The strategies detailed in the Enron memos were not exclusively Enron's, and were pursued, often more vigorously, by many of the sellers.

In the past, the sellers have argued that it was the buyers' “underscheduling” that caused high prices in the California markets. The market monitors at the ISO and PX

⁹⁸ See Prepared Testimony of Dr. Gary A. Stern on Behalf of the California Parties (Stern Testimony), Exh. No. CA-3 at 25. Dr. Stern analyzed May through September 2000 in detail to focus on the period before the refund effective date established by the Commission; however, he noted that the sellers' pattern of withdrawal of supply continued beyond the summer. *Id.* at 29-30.

⁹⁹ See *id.* at 67-70.

¹⁰⁰ See *id.* at 31.

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recognized as early as 1998 that it was the sellers' "underoffering," not the buyers underscheduling, that was responsible for high prices and for the buyers need to purchase power in the real-time market.¹⁰¹

In the face of these facts, the sellers' witnesses rely largely on assertion and ill-founded analyses. Dr. Tabors, for example, concedes from the outset, that "all load is bid in" to the PX day-ahead market,¹⁰² suggesting that there is no underscheduling of load by buyers in that market. However, he indicts the IOUs for bidding "a significant component of that load . . . at a price below which suppliers will supply."¹⁰³ Notably, he does not contend that the IOUs bid below a price at which it would have been profitable for the sellers to supply the day-ahead market. As Dr. Stern has shown, "the issue of underscheduling by load essentially evaporates if supply had been offered at reasonable prices."¹⁰⁴ The problem, which Dr. Tabors does not acknowledge, is that sellers were not willing to supply the day-ahead market at reasonable prices.¹⁰⁵

¹⁰¹ See, e.g., ISO/PX market monitors' joint memorandum to CEOs of ISO and PX at 1 (Nov. 10, 1998), Exh. No. CA-107 at 1; *Second Report on Market Issues in the California Power Exchange Energy Markets* at 47 (March 9, 1999), Exh. No. CA-148 at 6.

¹⁰² Testimony of Dr. Richard D. Tabors on Behalf of Powerex Corporation (Tabors Testimony), Exh. No. PWX-24 at 21.

¹⁰³ *Id.*

¹⁰⁴ Stern Testimony, Exh. No. CA-3 at 65.

¹⁰⁵ See Rebuttal Testimony of Dr. Gary A. Stern on Behalf of California Parties (Stern Rebuttal Testimony), Exh. No. CA-351 at 3-4.

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If the market were competitive, as Dr. Tabors assumes in his testimony,¹⁰⁶ then sellers should not expect to succeed when bidding above their marginal operating costs. Under such an assumption, buyers bidding to buy at the prices at which suppliers are willing to supply should have bid to buy at prices approximating the sellers' expected marginal operating costs. As described in the submissions referenced in Dr. Stern's prior testimony, both Edison and PG&E bid so as to buy less than their full forecasted demand from the PX precisely when the price at which suppliers were willing to supply exceeded prices consistent with a competitive.¹⁰⁷

Dr. Tabors futilely attempts to buttress his claims by focusing on PG&E's bidding behavior for Hour Ending 15 on April 11, 2000 -- an hour not representative of the many higher-priced hours in the summer of 2000 when sellers engaged in significant market manipulation. In his analysis, he fails to account for the ISO congestion markets that affected the prices and quantities he cites, and he relies on gross cost measures rather than net cost measures, such that his analysis of the economic incentives for PG&E is completely skewed.¹⁰⁸ Further, his analysis uses solely the Unconstrained Market

¹⁰⁶ See Tabors Testimony, Exh. No. PWX-24 at 24.

¹⁰⁷ Stern Testimony, Exh. No. CA-3 at 42-44; *see also*, Response of Southern California Edison Company to Requests for Admission, Production of Documents, and Other Requests for Information; Affidavit, FERC Dkt. No. PA02-2-000 (May 22, 2002), Exh. No. CA-293 at 9-10; PG&E Annual Transition Cost Proceeding Testimony, Chapter 1 at 17-20, Exh. No. CA-240 at 20-23.

¹⁰⁸ See Stern Rebuttal Testimony at 5. See *id* at 4-5. Dr. Tabors later in his testimony does consider congestion, arguing that PG&E underscheduled its demand in NP15 to create false congestion in the PX or ISO market. Exh. No. PWX-24 at 30:12-20. This appears to be a reference to a practice PG&E described in its responses to the May 8, 2002 data requests in

(continued)

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Clearing Price (UMCP), not the price that buyers actually paid and that sellers actually received after the ISO ran its congestion models. Likewise, Dr. Tabors focuses only on quantities in the unconstrained market in order to calculate the percentage that were “underscheduled” by PG&E. But he neglects to take into account that the final quantities awarded to PG&E, after congestion, were higher by 275 MW than the numbers that he stated to be PG&E’s final quantities in the PX market.¹⁰⁹

Dr. Tabors shows no more than that the IOUs had an incentive not to submit vertical demand bids into the PX market. Vertical demand bidding during the May through September 2000 period would have cost the IOUs over \$6.7 billion in additional costs on their net purchases.¹¹⁰

Next, Dr. Tabors attempts to explain supplier behavior by asserting that “well before the prices ran up in the summer of 2000, the strategy resulted in Real Time prices

Docket No. PA02-2-000, attached hereto as Exhibit No. CA-373. As explained there, PG&E was often confronted with phantom congestion and submitted bids to the PX that attempted to minimize the impact of that phantom congestion. This was perfectly appropriate and consistent with all ISO and PX rules. PG&E purchased power from the PX to serve actual PG&E load. PG&E's purchases were intended to reduce the total costs of the power that could be physically delivered and consumed by PG&E's load. PG&E's purchases did not promote congestion. PG&E's efforts to reduce the cost of serving PG&E's load do not justify Powerex's efforts to exacerbate and create artificial price increases. Recent ISO testimony describes the impact of selling practices, such as those practiced by PowerEx and other sellers, which created phantom congestion. The testimony, attached as Exhibit No. CA-372, documents that hundreds of millions of dollars of artificial costs were imposed by the phenomenon.

¹⁰⁹ *Id.* In examining the cost drivers for PG&E, Dr. Tabors also neglected to include the costs of replacement reserves -- which were purchased by the ISO and charged to load that could not be served in the PX market. While the price and quantity of replacement reserves procured by the ISO on Hour Ending 15 on April 11, 2000 were insignificant, that was not the case by June of 2000. *Id.* at 5-6.

¹¹⁰ Stern Testimony, Exh. No. CA-3 at 69.

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[that] were significantly and quite consistently higher than Day Ahead prices.”¹¹¹ As Dr. Stern shows in his Rebuttal Testimony, the price differential before the Summer of 2000 neither “significantly” nor “consistently” favored the real-time market prices.¹¹² These elementary errors simply underscore Dr. Tabor’s failure to come to grips with the markets as they were and not as he theorizes them to be. This is most obvious when Dr. Tabors asserts that “the supply curve represents the outcome of a competitive process -- one in which the individual players competitively bid their supply portfolio.”¹¹³

Dr. Tabors likewise characterizes the increase in purchasing from the ISO real-time market as a movement by IOUs from the PX to the ISO real-time market.¹¹⁴ Not so. As Dr. Stern demonstrated, the sellers withdrew thousands of MWs of power offers from the PX day-ahead market between 1999 and 2000, making it impossible for the buyers to acquire sufficient power to meet their needs on a day-ahead basis and forcing their purchases into the real-time market.¹¹⁵ In his Rebuttal Testimony, Dr. Stern further shows that the three IOUs, on an aggregate net basis, bid to buy substantially more power in 2000 than in 1999 and were willing to pay substantially higher prices for that power.¹¹⁶

¹¹¹ Tabors Testimony, Exh. No. PWX-24 at 29.

¹¹² Stern Rebuttal Testimony, Exh. No. CA-351 at 7.

¹¹³ Tabors Testimony, Exh. No. PWX-24 at 24.

¹¹⁴ *Id.* at 21.

¹¹⁵ *See* Stern Testimony, Exh. No. CA-3 at 8-26.

¹¹⁶ Stern Rebuttal Testimony, Exh. No. CA-351 at 8-12. Dr. Stern analyzes bidding behavior for the months of May through September 2000 for hour ending 16, on weekdays (the same set of bids considered for the supply analysis contained in his prior testimony).

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In summary, buyers tried to buy more, sellers offered to sell less, and less was purchased. Underscheduling was caused by sellers.

Dr. Tabors incorrectly argues that the Fat Boy strategy -- submission of a false load schedule to balance the power such that the ISO is unaware that there will be generation available -- is beneficial to the market.¹¹⁷ But overscheduling to load is only a “planned event” from the seller’s perspective. Because the ISO does not know that the load schedule is false, it must assume that the balanced schedule submitted by the Scheduling Coordinator is, in fact, balanced; there is no benefit to the market in the provision of false information.¹¹⁸

Further, a seller could readily “unschedule” Fat Boy load scheduled in the day-ahead market in order to leverage its profits elsewhere. Thus, Powerex contemplated using Fat Boy in the day-ahead market to schedule power into the ISO grid, and then export that same power in the hour-ahead market to collect congestion revenues.¹¹⁹ The ISO had no way to know that power scheduled to fictional demand would physically materialize in the real-time market.

¹¹⁷ Tabors Testimony, Exh. No. PWX-24 at 35: “Overscheduling to load is a planned event that assists in reliability of the system.”

¹¹⁸ See Stern Rebuttal Testimony, Exh. No. CA-351 at 12-16. See also Deposition of Terry Winter at 62, Exh. No. CA-362 at 3; Deposition of James Detmers at 136, 139, Exh. No. CA-363 at 3, 6. By contrast, unlike overscheduled load, the underscheduled load forced into the ISO market was known to the ISO in advance, as IOUs provided forecasts of actual daily demands to the grid operators. Stern Rebuttal Testimony at 13.

¹¹⁹ E-mail from Thomas Bechard to Murray Margolis and others, with attached memorandum explaining Powerex deal with PGES, Exh. No. CA-46 at 2.

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The testimony of other seller witnesses who discuss “underscheduling” suffers from similar infirmities. Mr. Hamal, for example, asserts that it was “reasonable for sellers to target the real-time market for some of their sales . . . particularly in light of the chronic underpurchasing of energy by buyers.”¹²⁰ He assumes, without support, that “chronic underpurchasing” was the problem, when in fact it was seller withdrawal from the day-ahead market that forced buyers to resort to the real-time market.¹²¹

Mr. Hamal also attempts to excuse seller manipulations where “monitors at the time were aware of those practices and their consequences, but did not challenge them.”¹²² He ignores the MMC and MSC reports that specifically identified concerns over the exercise of market power and the economic and physical withholding of power as early as 1998,¹²³ and that the ISO’s Department of Market Analysis (DMA) made it clear, well before the summer of 2000, that such behavior was not appropriate.¹²⁴

¹²⁰ Prepared Direct Testimony of Cliff W. Hamal (Hamal Testimony), Exh. No. REL-1 at 22.

¹²¹ See Stern Rebuttal Testimony, Exh. No. CA-351 at 16-17.

¹²² Hamal Testimony, Exh. No. REL-1 at 5.

¹²³ See, e.g., ISO/PX market monitors’ joint memorandum to CEOs of ISO and PX at 1 (Nov. 10, 1998), Exh. No. CA-107 at 1; *Second Report on Market Issues in the California Power Exchange Energy Markets* at 47 (March 9, 1999), Exh. No. CA-148 at 6.

¹²⁴ See, e.g., California ISO, *Annual Report on Market Issues and Performance* at 1-25 through 1-32 (June 1999), Exh. No. CA-286 at 308-15; Frank A. Wolak, Chairman MSC, *Report on Redesign of California Real-Time Energy and Ancillary Services Markets* at 63-66, 97-100 (Oct. 18, 1999), Exh. No. CA-286 at 543-46; 577-80; DMA, *Price Cap Policy for Summer 2000* at 4-5, Exh. No. CA-287 at 4-5; MSC, *The Competitiveness of the California Energy and Ancillary Services Markets*, Exh. No. CA-287 at 54-62; Anjali Sheffrin, Director, DMA, *Market Analysis Report* at 3, 9, Exh. No. CA-287 at 65, 71 (May 2000).

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Reliant's attitude is better exemplified by comparing John Stout's attempts to blame buyers¹²⁵ with this exchange from transcripts of Reliant trader conversations:

PERSON 2: Hey guys, you know when we might follow rules? When there's a penalty, that's when.

PERSON 1: That's right.¹²⁶

Dr. John W. Wilson's testimony on behalf of BGIT demonstrates his lack of familiarity with the ISO rules. In his testimony, Dr. Wilson asserts that load-serving entities such as the IOUs were required to submit balanced schedules in the day-ahead market¹²⁷ when, in fact, it is Scheduling Coordinators that are required to submit balanced schedules to the ISO. The PX was Edison's and PG&E's Scheduling Coordinator and the PX did submit balanced schedules to the ISO.¹²⁸

Although Dr. Wilson admits that there was supply side manipulation of the real-time market, he asserts that the IOUs "contributed to the magnitude of their injury through their own attempted demand-side manipulation of the day-ahead market."¹²⁹ As Dr. Stern has shown, it was the sellers who withdrew load from the PX day-ahead

¹²⁵ See Stern Testimony, Exh. No. CA-3 at 6-8 (discussing Mr. Stout's Congressional testimony).

¹²⁶ Transcripts of Reliant trader conversations, Exh. No. CA-239 at 8.

¹²⁷ Initial Testimony of John W. Wilson on Behalf of the City of Burbank, California, City of Glendale, California, Imperial Irrigation District, and Turlock Irrigation District (Wilson Testimony), Exh. No. BGT-2 at 12.

¹²⁸ See Stern Rebuttal Testimony, Exh. No. CA-351 at 18-19.

¹²⁹ Wilson Testimony, Exh. No. BGT-2 at 13.

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market, and then victimized buyers in the ISO's real-time market through a variety of manipulative games.¹³⁰

Finally, Drs. Harvey and Hogan, on behalf of Mirant, also assume that buyer behavior results in large real-time volumes, when they try to argue that Fat Boy was beneficial to the ISO to counter the load underscheduling.¹³¹ As noted previously, Fat Boy was not a reliability solution -- it was a reliability problem, as the power was withheld from the PX auction, causing a false perception of scarcity in order to create a crisis atmosphere and drive up prices.¹³²

Drs. Harvey and Hogan expressly set "aside the legal or policy issues regarding misrepresentations to the CalISO," as well as any effort to defend "Enron's actions;"¹³³ evidently, they have not been asked to examine their own client's behavior, or have not cared to do so.¹³⁴

¹³⁰ See Stern Rebuttal Testimony, Exh. No. CA-351 at 19. Dr. Charles J. Cicchetti also assumes, incorrectly, the IOUs underscheduled their load and that these actions contributed to high energy prices in the California markets. Testimony of Charles J. Cicchetti (Cicchetti Testimony), Exh. No. MAR-1 at 60. This incorrect premise leads him to the further error of blaming underscheduled load for problems in the sequential markets, rather than correctly assigning responsibility to the sellers' manipulations. See Stern Rebuttal Testimony at 20.

¹³¹ Prepared Direct Testimony of Scott M. Harvey and William W. Hogan on Behalf of Mirant Americas Energy Marketing, L.P., Mirant California, LLC, Mirant Delta, LLC and Mirant Potrero, LLC (Harvey/Hogan Testimony), Exh. No. MIR-1 at 250.

¹³² Stern Rebuttal Testimony at 21-22.

¹³³ Harvey/Hogan Testimony at 249.

¹³⁴ As noted in Dr. Fox-Penner's testimony, Mirant is among the participants who engaged in overscheduling generation, particularly with their units under RMR contract. See Prepared Testimony of Dr. Peter Fox-Penner on Behalf of the California Parties (Fox-Penner Testimony), Exh. No. CA-1 at 170-74.

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This Commission, however, cannot set aside “legal or policy issues.” As Chairman Wood made clear in his testimony to the Senate last year, many of the Enron strategies, involving the provision of false information to the ISO, either were illegal or should be.¹³⁵ He also characterized those strategies as “market manipulation” which could not ever be just and reasonable or in the public interest.¹³⁶

B. CERS’ Buying Behavior Was Not the Cause of the High Prices Charged By Sellers

Marketer witness Dr. Cicchetti asserts that the sellers have discovered new evidence that “manipulative” conduct by California Energy Resources Scheduling Division (CERS) during the Refund Period contributed to high energy prices.¹³⁷ The evidence he cites, however, is not new, does not demonstrate market manipulation, does not relate to the refund period, and does not establish that CERS’ conduct caused higher prices or any other market ill. Moreover, it was the intentional market manipulation of sellers -- now well documented in the California Parties’ March 3 Filing -- that drove the IOUs to insolvency, necessitated the creation of CERS, and compelled the very

¹³⁵ *Hearing to Examine Manipulation in W. Markets During 2000-2001 as Revealed in Recent Documents Made Pub. In the Course of Investigation Underway at FERC: Hearing before the Senate Comm. On Energy & Natural Res., 107th Cong. 187 (May 15, 2002), Tr. at 49:6-14.*

¹³⁶ *Id.* at 64:2-18. *See also id.* at 113 (former Enron senior counsel Christian Yoder testifying that “any practice that involves false information should be illegal and have civil and possibly criminal sanctions. If there is false information that is being submitted to a public agency, that is wrong”).

¹³⁷ Prepared Testimony of Charles J. Cicchetti on behalf of Avista Energy, Inc., BP Energy Company, IDACORP Energy L.P., Puget Sound Energy, Inc., TransAlta Energy Marketing (U.S.) Inc., TransAlta Energy Marketing (California) Inc., and TransCanada Energy, Ltd., Exh. No. MAR-1 at 63-66.

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purchasing behavior (large bilateral OOM purchases) that Dr. Cicchetti now disingenuously identifies as a “cause” of the crisis.

Dr. Cicchetti argues first that materials contained in his Exh. No. MAR-14 show that CERS obtained extensive access “during the refund period” to non-public ISO data.¹³⁸ The ISO materials that Dr. Cicchetti relies on however, reveal only that the ISO provided CERS with certain limited non-public information after the close of the Refund Period, on and after June 25, 2001. Specifically, the document identified as CAISO 1893-1897¹³⁹ is a table prepared by the ISO that summarizes information requested by CERS and the date that the requested information was delivered. With two exceptions, both of which relate to public information, the table indicates that all of the information was provided by the ISO to CERS on or after June 25, 2001 -- five days after the close of the Refund Period. Further, none of the references to other documents in Exh. MAR-14 indicate that CERS had “extensive access” to non-public ISO data at any time before the close of the Refund Period.¹⁴⁰ As the ISO’s Mr. Detmers confirmed in a deposition taken by CSG, CERS did not condition its credit support on the ISO’s provision to it of non-public information until “later in 2001.”¹⁴¹ Moreover, as Mr. Detmers explained, the

¹³⁸ Exh. No. MAR-1 at 64.

¹³⁹ Exh. No. MAR-14 at 1-5, *cited in* Exh. No. MAR-1 at 64.

¹⁴⁰ Of course, even after the close of the refund period, CERS’ access to non-public information was never extensive, as revealed in the very documents Dr. Cicchetti cites, and as discussed *infra*.

¹⁴¹ Exh. No. CA-375 at 4 (Excerpts of deposition of James Detmers, February 4, 2003). Mr. Detmers went on to explain that such information was not provided until at least June 2001. *Id.* at 7-10.

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information in question (that was not provided until some time in June 2001) involved only aggregated seller bid information, not individual seller bids, because the ISO from the outset was very cautious about the types and quantity of information regarding markets or operating conditions that it provided to CERS.¹⁴²

That CERS' staff were present on the ISO's trading floor during the refund period is a fact that the Commission has known for over two years, and Dr. Cicchetti's testimony sheds no new light on it. What the Commission in the past has failed to appreciate, however, and what the California Parties' March 3 Filing proves, is that it was the sellers who necessitated CERS' presence on the ISO trading floor so that real-time purchases could be made from sellers who demanded a credit-worthy counterparty.¹⁴³ CERS was fulfilling the role previously played by the ISO and PX. CERS needed to be on the ISO trading floor in order to do its job -- to provide financial backing for ISO BEEP stack purchases and OOM purchases, and to make its own bilateral purchases because the sellers refused to sell to the ISO. As former ISO real-time generation dispatcher Terry Dennis has explained in this case, it was necessary for CERS personnel to be physically present at the ISO during the early period of CERS' operation because the minute-to-minute decision-making that was needed to keep the grid operating required instant communication.¹⁴⁴ CERS' presence on the ISO's trading floor during the

¹⁴² *Id.* at 9-10.

¹⁴³ March 3 Filing at 153-158.

¹⁴⁴ Exh. No. CA-376 (Declaration of Terry P. Dennis, attached as Exhibit "A" to the request of the EOB for expedited rehearing of the July 25th Order establishing evidentiary hearing procedures, filed July 30, 2001, at ¶¶ 9-10. As Mr. Dennis explained:

(continued)

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chaotic months in question -- January-June 2001 -- was thus an unavoidable consequence of the dire situation created by the sellers.

Dr. Cicchetti's second point is that CERS' purchasing protocols during the Refund Period "artificially inflated BEEP stack prices."¹⁴⁵ He bases this claim on an ISO statement to the Dunn Committee in December 2001, to the effect that, during 2001, CERS' practice of purchasing OOM energy before BEEP stack energy inverted the ISO's usual approach and could have resulted in bids in the BEEP stack from only higher cost energy resources.¹⁴⁶ Here again, Dr. Cicchetti has his time frames wrong. As a review of the ISO report reveals, the ISO was not referring to CERS' practices during the Refund Period, but rather was referring to later events that occurred during the second half of 2001. In the same report, the ISO concludes the discussion of CERS' buying behavior quoted by Dr. Cicchetti by placing it in context: non-compliance by generators with ISO dispatch instructions during the second half of 2001:

The ISO hopes that a return to normal market structures will stabilize both prices in and reliability of the BEEP stack, and encourage out-of-state suppliers to participate actively in the real-time imbalance energy market.

[T]his period was characterized by mass confusion, minute-to-minute decision making, and an overall frantic attempt to obtain sufficient power supplies to keep the grid up. During this period, it was not unusual for CERS' two Energy Traders, who have a total of six incoming lines (three each side) to have all lines busy, with both traders engaged in bilateral transactions in real- and hour-ahead deals. As before, it was necessary for CERS personnel to be physically present during this period of chaos in order for the CAISO to communicate its needs to CERS.

¹⁴⁵ Exh. No. MAR-1 at 64-65.

¹⁴⁶ Exh. No. MAR-14 at 19.

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In making this observation, the ISO in no way excuses or understates the seriousness of the generators' failure to comply when energy bid into the BEEP stack is dispatched. As detailed in ISO reports to FERC, non-compliance in the past six months with dispatch has threatened reliability of the grid. . . . ¹⁴⁷

Mr. Detmers confirmed this point in his recent deposition. He explained that, at least during the Refund Period, CERS purchased OOM and BEEP energy in exactly the same order as did the ISO. Under the emergency conditions that prevailed during the Refund Period, when it was apparent that BEEP stack bids would not be sufficient to meet shortfalls, both the ISO and CERS purchased OOM energy in advance of BEEP stack operation. As Mr. Detmers explained very clearly, CERS did not change the sequence in which OOM purchases and BEEP stack energy were purchased when it assumed that function during the Refund Period from the ISO¹⁴⁸ -- it carried on exactly as the ISO had been doing during the crisis situation.¹⁴⁹

It is not surprising, of course, that first the ISO, and then CERS, was forced to make out-of-market purchases in advance of the BEEP operation: this is the outcome that the sellers, through their manipulative behavior, intentionally created. Indeed, another ISO report relied on by Dr. Cicchetti confirms this fact. In 2000, sellers sharply reduced their participation in the BEEP real-time market, forcing the ISO to make large

¹⁴⁷ Exh. No. MAR-14 at 20-21 (emphasis supplied).

¹⁴⁸ Exh. No. CA-375 at 2-6.

¹⁴⁹ Dr. Cicchetti's claim is also directly contradicted by the March 3rd testimony of Drs. Hogan and Harvey, who have opined that CERS' purchasing activities during the refund period had the effect of depressing the ISO's market clearing prices. Exh. No. MIR-1 at 271-272.

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amounts of expensive OOM purchases.¹⁵⁰ As credit problems mounted and CERS was created, the problem continued into 2001, when bids into the BEEP stack continued to be so few and so small in quantity that it was not possible to acquire sufficient power through the ISO's markets.¹⁵¹ Moreover, as revealed in the first-hand accounts of several witnesses in this case, the sellers intentionally exacerbated the problem about which Dr. Cicchetti now complains by refusing to sell energy to the ISO (even though CERS was in existence and could have provided credit backing) and instead insisted upon selling bilaterally to CERS in real time.¹⁵²

Dr. Cicchetti's third claim is that CERS interfered with the ability of the ISO to perform under its Tariff during the Refund Period.¹⁵³ The examples he cites, however, either did not occur during the Refund Period or are the natural consequence of the ISO's need to rely on a third party for credit backing in order to continue with its operations. Necessarily, the ISO's Tariff did not contemplate the existence of a third party needed to back the ISO's purchases. The ISO itself expressed this best in a document also relied upon by Dr. Cicchetti:

Not surprisingly, nothing in the ISO Tariff directly addresses the circumstance that has confronted the ISO through much of the year: a state

¹⁵⁰ Exh. MAR-14 at 33-34 (ISO Operations Economic Report 2001).

¹⁵¹ Exh. No. CA-376 at ¶¶ 5-7.

¹⁵² Exh. No. CA-13 at 9-10 (Green Testimony); Exh. No. CA-377 (Declaration of James Detmers, attached as Exhibit "A" to the Request of the California Electricity Oversight Board for Expedited Rehearing of the July 25th Order, filed July 30, 2001) at ¶ 8; Exh. No. CA-342 (Detmers Deposition); Exh. No. CA-376 (Dennis Declaration) at ¶ 6.

¹⁵³ Exh. No. MAR-1 at 65-66.

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agency, operating under authority of and constraints defined by state legislation, stepping in to purchase power in place of insolvent utilities.¹⁵⁴

CERS unavoidably created an additional layer of complication that did not exist when the ISO was able to function without CERS. It is thus to be expected that CERS' existence affected in some respects the ISO's ability to carry out its functions under a tariff that did not contemplate the existence of CERS or the crisis which necessitated it.

Two points are relevant here. First, Dr. Cicchetti does not identify any instances in which the ISO's interaction with CERS constituted market manipulation, drove up market prices, or otherwise adversely affected the market. Second, even if the existence of CERS had such effects, CERS was created because market manipulation engaged in by sellers drove energy prices to extremely high levels and forced insolvencies that had to be managed if California was not to go dark. CERS was a compelled reaction to a crisis created by the sellers.

The Commission must revisit its previous finding that short-term bilateral sales to CERS should not be mitigated. The equities clearly weigh in favor of mitigation. Moreover, the evidence presented on March 3 Filing by the California Parties demonstrates overwhelmingly that CERS' short-term purchases were of exactly the same nature as ISO spot market purchases, that sellers manipulated the market intentionally to sell to CERS instead of the ISO, and that the same manipulative games that drove prices to unheard of levels in the ISO markets dictated the prices of sales to CERS. CERS purchases were not "voluntary" bilateral contracts "outside of the ISO and PX." Indeed,

¹⁵⁴ Exh. No. MAR-14 at 16.

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by the time that CERS was making purchases during the Refund Period, the PX no longer existed, and the sellers were refusing to sell to the ISO. Nothing in Dr. Cicchetti's March 3 testimony supports a finding to the contrary. The evidence he cites is not new, certainly is not evidence of market manipulation by CERS, appears to be drawn largely from events that occurred after the Refund Period, and does not establish that CERS' conduct caused higher prices or any other problems that the ISO markets experienced. The problems were caused by the purposeful manipulation of the sellers.

C. IOU Hydro Bids Were Efficient and Appropriate

In another attempt to justify sellers' own high-bid strategies, Mirant asserts that "[t]he California Parties themselves [*i.e.*, PG&E and Edison] offered capacity from generating units at prices that exceeded the unit's incremental production costs."¹⁵⁵

However, the bids criticized by Mirant's witnesses, Drs. Harvey and Hogan, were bids for the non-must run portions of PG&E's and Edison's hydroelectric generating units.¹⁵⁶

Bids by PG&E and Edison for sales of power to themselves pose different issues than bids by net sellers into the market. It was sensible for PG&E and Edison, as net buyers, to offer their limited hydropower supplies when prices were highest -- in hopes of counter-balancing some of the high-priced power to be purchased from third parties. In

¹⁵⁵ Mirant's Executive Summary and Index of Relevant Material, proposed findings associated with Exhibits MIR-3 (PG&E data response), MIR-4 (PG&E data response), and MIR-6 (Edison data response (excerpted)); *see, also*, Harvey and Hogan Testimony, Exh. No. MIR-1 at 122 n.92 (PG&E hydro bids), 125 n. 96 (same), 134 n.104 (same) and 135 n.105 (Edison hydro bids).

¹⁵⁶ *Id.*

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any event, the California Parties concur that the prices received for hydropower were excessive in many hours, and have endorsed the Commission's approach of mitigating all sales into the ISO/PX and running the revised prices through the ISO/PX settlement system; this will mitigate PG&E's and Edison's hydropower sales as well as other sales.¹⁵⁷

V. ADDITIONAL PROCEDURES

The Commission required in its February 10, 2003 Order on Clarification and Rehearing that "to the extent the parties believe that there is a need for cross-examination, the parties should so inform the Commission in their reply comments, and identify any disputed issues of material fact."¹⁵⁸

Through the instant filing and the March 3 Filing, the California Parties have presented compelling evidence of market manipulation and tariff violations. The facts are undisputed, relying on ISO and PX data and the admissions of the sellers themselves - by virtue of their responses to the discovery conducted by the California Parties. The sellers have been provided an opportunity to offer evidence themselves, but that evidence, which consists of abstract theorizing by economists who ignore the ISO and PX data and the admissions obtained in discovery, does not create any material issue of fact

¹⁵⁷ Stern Testimony, Exh. No CA-3 at 73-76; California Parties Supplemental Evidence Of Market Manipulation By Sellers, Proposed Findings Of Fact, And Request For Refunds And Other Relief, at 139-150 (March 3, 2003).

¹⁵⁸ *San Diego Gas & Electric Co.*, 102 FERC ¶ 61,164 at P 4 (2003).

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as to the existence of market manipulation by sellers.¹⁵⁹ Moreover, there is sufficient evidence in the record enabling the Commission to find that there was significant market manipulation and a pervasive pattern of tariff violation without instituting formal hearing procedures.

Alternatively, if the Commission makes the determination that there are issues of material fact necessitating the establishment of hearing procedures, the California Parties respectfully request that the Commission allow the issues to be addressed in one hearing proceeding, rather than splinter these issues into separate, company-specific investigations. As the California Parties have shown, the tariff violations and market manipulations were interrelated and worked together to create the incredibly high rates charged during the electricity crisis. Additionally, sellers acted in concert with one another in order to manipulate the market. As previously explained by the California Parties in the March 3 Filing,¹⁶⁰ as well as by Dr. Fox-Penner,¹⁶¹ in the single-price auctions run by the ISO and PX, it is impossible to isolate the harmful effects of any one violation or of any one bad actor. One seller's action invariably impacted the actions of other sellers. Therefore, the actions of various sellers must be examined in conjunction with one another in order to see the complete picture, and the effects of, the market

¹⁵⁹ In the November 20, 2002 Order, the Commission directed parties to "submit directly to the Commission additional evidence and proposed new and/or modified findings of fact based upon proffered evidence that is either indicative or **counter-indicative** of market manipulation" by the original filing date of February 28. 101 FERC ¶ 61,186, at P 27 (2002). (emphasis added).

¹⁶⁰ March 3 Filing, at 9, 143-44.

¹⁶¹ Exh. No. CA-1 at 37-39.

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manipulation. As the evidence shows, the scope of the manipulation was market-wide, and only a proceeding that takes into account the systematic abuses of market rules by various entities would provide a fair remedy to the market abuses that occurred between May 2000 and June 2001.¹⁶²

In the event that the Commission institutes hearing procedures, the California Parties request that they be permitted to cross-examine all of the various witnesses that file testimony on behalf of the Sellers in this proceeding and engage in such other procedures as may be appropriate. These witnesses include: Dr. Scott M. Harvey (Mirant); Dr. William W. Hogan (Mirant); Mr. Paul G. Scheuerman (Cities of Burbank and Glendale/TID); Dr. John W. Wilson (Cities of Burbank and Glendale/TID/IID); Mr. Keith R. Saline (IID); Dr. Charles J. Cicchetti (Avista, et al.); Mr. Cliff W. Hamal (Reliant); Dr. Frederick H. Pickel (Powerex); and Dr. Richard D. Tabors (Powerex).

¹⁶² In August 2002, the Commission initiated several investigations relating to the California power markets. *See El Paso Electric Co., et al.*, 100 FERC ¶ 61,188 (2002); *Portland General Electric Co., et al.*, 100 FERC ¶ 61,186 (2002); *Avista Corp. et al.*, 100 FERC ¶ 61,187 (2002). The Commission has entered into various settlements to date with sellers who engaged in misconduct in those markets. *See, e.g.*, "Agreement in Resolution of Section 206 Proceeding" filed by Avista and Commission Staff on January 30, 2003. To the extent the Commission wants to determine punishment for those sellers, it may want to continue those proceedings. However, the instant proceeding is one in which the remedy to buyers for the period should be determined. The institution of individual proceedings in order to punish sellers should not be permitted to delay or hinder the remedy for the buyers, which is appropriately determined in this proceeding on a market-wide basis, as proposed in the March 3 Filing and in the instant filing. These issues can only be properly viewed in context as part of the larger picture. In fact, FERC Staff, in its testimonies in EL02-113 and EL02-114, arrived at the same conclusion and recommended in both cases that the proceedings be broadened or delayed to allow for further exposition of the whole story. Exh. No. CA-105 at 37-38, Exh. No. CA-106 at 1273-4, 1280.

VI. CONCLUSION

WHEREFORE, for the reasons stated herein, and as explained in the California Parties' March 3 Filing, the Commission should adopt the California Parties' proposed findings of fact, and suggested remedies.

Respectfully submitted,

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March 20, 2003