

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Enron Power Marketing, Inc.	)	Docket No. EL03-180-000
and Enron Energy Services Inc.)	
)	
Enron Power Marketing, Inc.	)	Docket No. EL03-154-000
and Enron Energy Services Inc.)	
)	
Portland General Electric Company	)	Docket No. EL02-114-007
)	
Enron Power Marketing, Inc.	)	Docket No. EL02-115-008
)	
El Paso Electric Company	)	Docket No. EL02-113-000
Enron Power Marketing, Inc., and)	
Enron Capital and Trade Resources Corp.)	

(Consolidated)

**SUMMARY OF REBUTTAL TESTIMONY OF
ROBERT F. MCCULLOUGH
ON BEHALF OF PUBLIC UTILITY DISTRICT NO. 1 OF
SNOHOMISH COUNTY, WASHINGTON**

Robert F. McCullough, Managing Partner of McCullough Research, rebuts the direct testimony filed by Enron witness, Dr. Jan Paul Acton, in Docket EL03-154 involving Enron's gaming practices and profits. Mr. McCullough testifies to each of the eight gaming practices discussed in Dr. Acton's testimony: False Import (also known as Ricochet or Megawatt Laundering); Cutting Non-Firm (also known as Non-Firm Export); Circular Scheduling (also known as Death Star); Scheduling Counterflows on Out-of-Service Lines (also known as Wheel Out); Load Shift, Paper Trading (also known as Get Shorty); Double Selling; and Selling Non-Firm as Firm. Mr. McCullough demonstrates that Dr. Acton's claim that fraudulent gaming practices increased, rather than decreased, the efficiency of the markets is preposterous. Rather than increasing

efficiency of the markets, Mr. McCullough shows how each of the gaming practices had a detrimental effect on market efficiency and consumers.

Mr. McCullough also rebuts Dr. Acton's direct testimony in Docket EL03-180 involving Enron's business arrangements, alliances or partnerships with other entities and profits analysis of Enron's gaming practices, partnerships, or profits. Mr. McCullough demonstrates that Dr. Acton simply missed the vast majority of evidence regarding Enron's unreported relationships with partnership entities discussed in Dr. Acton's testimony.

Additionally, Mr. McCullough rebuts the position taken by the California Parties' witness, Jeffrey Merola, regarding the amount of profits derived by Enron from transactions in California versus the amount of profits derived by Enron from transactions in other parts of the West. The distribution of Enron's profits among regions in the Western Interconnect is a subject matter that is best-suited for analysis in the second phase of this proceeding involving the distribution of proceeds.

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		(CONSOLIDATED)

**REBUTTAL TESTIMONY OF ROBERT F. MCCULLOUGH
ON BEHALF OF PUBLIC UTILITY DISTRICT NO. 1 OF
SNOHOMISH COUNTY, WASHINGTON**

Introduction

Q. Please state your name and address for the record.

**A. My name is Robert F. McCullough, Jr. I am the Managing Partner of
McCullough Research, an energy consulting firm specializing in bulk power
issues. My address is 6123 S.E. Reed College Place, Portland, Oregon 97202.**

**Q. Are you the same Robert McCullough who submitted testimony previously in
this proceeding on behalf of the Public Utility District No. 1 of Snohomish
County, Washington?**

1 A. Yes.

2 **Q. What is the purpose of your current testimony?**

3 A. This testimony rebuts the direct testimony filed by Enron's witness, Dr. Jan
4 Acton, in Docket EL03-154 involving Enron's gaming practices and profits.¹
5 This testimony also rebuts Dr. Acton's direct testimony in Docket EL03-180
6 involving Enron's business arrangements, alliances or partnerships with other
7 entities and profits.² In addition, this testimony rebuts the position taken by the
8 California Parties' witness, Mr. Jeffrey Merola, regarding the amount of profits
9 derived by Enron from transactions in California versus the amount of profits
10 derived by Enron from transactions in other parts of the West. As discussed later
11 in my testimony, the distribution of Enron's profits among regions in the Western
12 Interconnect is a subject matter that is best-suited for analysis in the second phase
13 of this proceeding involving the distribution of proceeds.

14 **Q. Please summarize Dr. Acton's conclusions in his EL03-154 testimony**
15 **regarding Enron's gaming practices and profits.**

16 A. On page 2 of Ex. ENR-42, Dr. Acton states:

17 My principal findings are these:

18 1. The FERC Show Cause Order identified eight practices for
19 investigation and potential disgorgement. Using the standard that
20 FERC cited, I find that six of the eight "gaming" practices do not meet
21 the articulated standard of harm to market efficiency and to consumers
22 in California markets.

¹ Dr. Acton's direct testimony in Docket EL03-180 is numbered as Exhibit ENR- 1. Dr. Acton's direct testimony in Docket EL03-154 was formerly numbered as Exhibit ENR-1, but Enron later renumbered that testimony as Exhibit ENR-42.

²For ease of reference, I use the term "partnership" in this testimony to collectively describe Enron's business arrangements and alliances.

2. The claim against Enron for these eight practices in the ISO's June 2003 report as updated by the ISO's July data productions where appropriate (prepared in response to a FERC directive), totals less than \$7 million. Of this amount, two practices, Circular Scheduling, and sales-plus-buy-back transactions (which is broader than the Paper Trading FERC ordered for Show Cause) account for more than 90% of the ISO claim.

3. The claim becomes even smaller once errors in data and/or methodology employed by the ISO have been corrected.

4. Six of the eight "gaming" practices generally improve economic efficiency in the California markets, and they leave consumers either unaffected or with lower prices.

5. These six strategies are consistent with the behavior of a profit maximizing firm in a competitive market and, thus, do not constitute anomalous market behavior.

6. Thus, there is no evidence of harm to economic efficiency or to consumers that could justify or support imposing the disgorgement remedy with respect to the Enron transactions for six of the eight identified practices. These six practices comprise about 95% of the ISO claim.

7. Two of the gaming practices—Cutting Non-Firm (also known as Non-Firm Export) and Scheduling Counterflows on Out-of-Service Lines (also known as Wheelout)—do not improve efficiency nor do they benefit consumers. The ISO estimates that Enron earned a total of \$304,572 from these transactions. When I correct for errors in ISO methods and data, the value subject to the disgorgement is \$279,489 for these two practices.

Q. Please summarize Dr. Acton's conclusions in his EL03-180 testimony regarding Enron's partnerships and profits.

A. On page 4 of Ex. ENR-1, Dr. Acton states:

My principal findings are as follows:

1. With regard to nine of the ten parties, I am not aware of any evidence that Enron had an "alliance" or partnership agreement that gave Enron substantial control or decision-making authority over the assets of its counterparty.

2. []

1
2 3. In all ten cases, I am not aware of any evidence that Enron's
3 agreements resulted in the parties' working in concert to engage in
4 Gaming Practices or anomalous behavior.
5

6 4. Enron's arrangements with some of the parties generally
7 benefited consumers in California markets by increasing the amount of
8 imports sold into the ISO control area, which helped to alleviate
9 upward pressure on market prices.
10

11 **Q. What level of profit has Dr. Acton calculated in EL03-180?**

12 A. Based upon an incomplete analysis, Dr. Acton identified \$2,410,956.29 in
13 revenues received during the time period January 1, 2000 to June 21, 2001. (Ex.
14 ENR-1, p. 39).

15 **Q. Do you agree with Dr. Acton's conclusions?**

16 A. No. Dr. Acton did not perform a rigorous, independent investigation and analysis
17 of Enron's gaming practices, partnerships, or profits. Dr. Acton's approach was
18 to passively rely upon a limited set of partial information provided to him by
19 Enron. As a consequence, he ignored a large volume of evidence. He also
20 adopted extreme positions, devoid of common sense or economic logic. Some of
21 his positions are so exaggerated that they are humorous. For example, Dr.
22 Acton's claim that fraudulent gaming practices increased, rather than decreased,
23 the efficiency of the markets is preposterous.

24 **Q. Do you expect Enron to attempt to file more direct testimony during the**
25 **rebuttal stage of this proceeding?**

26 A. Yes. In his direct testimony, Dr. Acton stated he and his staff had not reviewed
27 all relevant Enron documents because some documents had been seized by the

1 Department of Justice and he did not have time to review other documents when
2 he prepared his testimony. (Ex. ENR-1, p. 6). While Dr. Acton claimed he could
3 not access all relevant data at the time he prepared his testimony, in reality,
4 relevant data were readily available in Enron computer databases and files. Enron
5 simply did not produce the data in Enron's show cause responses and Dr. Acton
6 simply did not analyze the data in his testimony. Dr. Acton's direct testimony
7 was limited to, and dependent upon, a very narrow universe of data Enron chose
8 to have analyzed in that testimony. (Exs. ENR-1, p. 5 & ENR-42, pp. 54-55). As
9 a result, Dr. Acton either willingly or unknowingly allowed blinders to be placed
10 on his analysis and he reached flawed conclusions based upon that untrustworthy
11 analysis.

12 **Q. Should Enron be allowed to re-file and expand its direct testimony in the**
13 **guise of rebuttal?**

14 **A.** No. We know that at the time Dr. Acton's direct testimony was submitted,
15 Enron's files contained far more evidence on Enron's gaming practices,
16 partnerships and profits than Dr. Acton revealed in his testimony. If Enron truly
17 needed more time to comply fully with the Commission's show cause orders or to
18 submit its direct testimony, then Enron should have sought permission from
19 FERC to supplement its show cause responses and extend the deadline for the
20 submission of its direct testimony. Enron failed to do so. Moreover, if Enron
21 claimed data was unavailable, it should be forced to stand on that claim.

1 **Q. Should Enron and Dr. Acton have known that the principle gaming scheme**
2 **documents – the Inc Sheets – and the principle partnership documents – the**
3 **Service Sheets – were on Enron’s computer systems and had already been**
4 **identified as critical documents by Enron’s lawyers?**

5 A. Yes. Either Dr. Acton was not informed that the critical documents had been
6 identified two years before (Ex. SNO-899) or he failed to conduct a diligent
7 investigation.

8 **Q. Was Dr. Acton a stranger to Enron, its lawyers, and issues in California and**
9 **the West?**

10 A. No. Dr. Acton was active on Enron’s behalf as early as February of 2001 (Ex.
11 SNO-823), when Enron’s market manipulation schemes had been operating full-
12 tilt.

13 **Q. What type of work was Dr. Acton doing for Enron as early as February of**
14 **2001?**

15 A. Dr. Acton was clearly part of a litigation team that was put together to defend
16 Enron’s behavior in the Western power markets. The materials submitted as part
17 of Ex. SNO-823 indicate Dr. Acton was involved in various meetings and
18 document retrieval processes for Enron related to litigation involving Enron’s
19 trading operations in “California and the West.” In an April 17, 2001 letter
20 (included as part of Ex. SNO-823) from Dr. Acton to Gary Fergus, an attorney for
21 Enron, Dr. Acton outlined his activities for Enron during the month of March
22 2001:

1 During this period, our principal activities have been to prepare for and
2 meet with you and other attorneys and to acquire and review
3 information that is relevant to the litigation. Specifically, Bob Spann
4 and I met with you and other attorneys in your office in San Francisco
5 on March 15. We joined one of the attorneys from your office for a
6 conference on the California energy situation sponsored by the
7 University of California Energy Institute on March 16. We also
8 completed your request to download and archive materials from the
9 web sites of the Cal-PX and Cal-ISO to assure that these materials
10 would be available for future use. We performed some initial screens
11 on data sets that may be used at some point in the matter. Throughout
12 this period, we also continued to identify and acquire copies of public
13 documents that bear on the matter. At this point, we have identified
14 more than 25 public data sets and more than 150 studies that may be
15 used by various parties in the matter.

16 (Ex. SNO-823).

17 The materials submitted as part of Ex. SNO-823 also indicate that additional work
18 had been performed on behalf of Enron during earlier months in 2001. (Ex. SNO-
19 823, p. 4).

20 **Q. Is there other evidence in Dr. Acton's testimony indicating that he had**
21 **detailed access to Enron's accounting and trading materials?**

22 **A.** Yes. On page 44 of Ex. ENR-1, Dr. Acton states:

23 This information is part of the ISO's dataset in the field called
24 INTERCHG_ID, though the data are encoded. Transactions by ECT
25 desk have INTERCHG_IDs that begin with "11", "19", "20", or "22".
26 The transactions that Enron scheduled on behalf of customers in
27 Enron's role as SC include INTERCHG_IDs that begin with "02"
28 (Glendale), "04" (Seattle City Light), "05" (Plains Generation &
29 Transmission Capacity), "06" (Colorado River Commission), "07" (El
30 Paso Electric), "09" (Valley Electric Association), "16" (EWEB), or
31 "25" (Saguaro).

32
33 While the INTERCHG_ID is an ISO data element, the coding is an internal Enron
34 trading definition that is not established by the ISO. This level of knowledge
35 requires access to an internal Enron data base. Despite apparently having access

to Enron's transactional data, Dr. Acton somehow failed to locate or notice, for example, Inc Sheets, Enpower comment fields, and CAPS to Enpower Reconciliation sheets, all of which explicitly refer to Enron schemes by name and provide a starting point for calculating Enron's unjust profits.

Q. What do you conclude from all of these facts about the availability of data in Enron's files and Dr. Acton's long-standing relationship with Enron?

A. Dr. Acton could have and should have performed a more rigorous investigation and analysis of Enron's gaming practices, partnerships and profits at the time Enron submitted its direct testimony in this proceeding.

Q. How is your rebuttal testimony organized?

A. My rebuttal testimony contains five sections:

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Enron's Gaming Practices

Q. Did each of the gaming practices discussed in Dr. Acton's testimony involve fraud, deception or misrepresentation?

A. Yes. Dr. Acton discussed the following eight gaming practices in his direct testimony:

(1) False Import (also known as Ricochet or Megawatt Laundering);

(2) Cutting Non-Firm (also known as Non-Firm Export);

(3) Circular Scheduling (also known as Death Star);

(4) Scheduling Counterflows on Out-of-Service Lines (also known as Wheel Out);

(5) Load Shift;

(6) Paper Trading (also known as Get Shorty);

(7) Double Selling (also known as Get Shorty); and

(8) Selling Non-Firm as Firm.

(Ex. ENR-42 at 9)

1 The Commission has found that each of these gaming practices involved fraud,
2 deception or misrepresentation. (*American Electric Power Corp., et al.*, 103
3 FERC ¶ 61,345, at PP 39, 46, 51, 55 (2003)).

4 **Q. How does Dr. Acton defend Enron’s misrepresentations and the fraudulent**
5 **aspects common to these schemes?**

6 A. Dr. Acton argues that most of Enron’s fraudulent schemes were either neutral or
7 actually beneficial to California:

8 As discussed below in detail, I find that Enron’s activities for six of the
9 eight practices did not act to the detriment of efficiency of the
10 California markets during this period. To the contrary, I find that
11 Enron’s activities for six of the eight identified practices either did not
12 harm efficiency or, in some cases, led to improved efficiency in the
13 California markets. With regard to the other two practices, although
14 efficiency may not have been affected, ISO rates may have been
15 increased.

16 (Ex. ENR-42, p. 6, lines 13 through 19).

17 More specifically, Dr. Acton contends the following six gaming practices either
18 did not harm or were beneficial to market efficiency or consumers: (1) False
19 Import; (2) Circular Scheduling; (3) Load Shift; (4) Paper Trading; (5) Selling
20 Non-Firm as Firm; and, by implication, (6) Double Selling. But, as Dr. Acton
21 admits elsewhere in his testimony, he never even analyzed the gaming practice of
22 Double Selling and he performed an extremely limited analysis of the gaming
23 practice of Ricochet. (Ex. ENR-42, pp.21 & 65). As Dr. Acton also admits, the
24 two remaining gaming practices – namely Cutting Non-Firm and Scheduling
25 Counterflows on Out-of-Service Lines (also known as Wheel Out) – “do not
26 improve efficiency nor do they benefit consumers.” (Ex. ENR-42, p.3).

1 **Q. How does Dr. Acton square his position with the fraudulent nature of**
2 **Enron's schemes?**

3 A. Dr. Acton essentially contends that if the consumers are convinced that a product
4 actually exists, economic efficiency is improved. This argument surfaces at
5 different places in his analysis including Selling Non-Firm as Firm and Get
6 Shorty. In his non-firm as firm section, for example, Dr. Acton states:

7 Even if non-firm imports were misrepresented as firm and even if this
8 were a per se illegitimate practice, it does not follow that there would
9 be harm to efficiency of the market or to consumers. First, as noted
10 above, these imports increased the supply of energy in California, and
11 thus lowered the cost of energy relative to the next source of supply.
12 Second, the ISO saved money on the cost of operating reserves within
13 its control area. Ultimately, California consumers paid less for the
14 energy as firm imports than they would have paid if it were sold as
15 non-firm imports.

16 (Ex. ENR-42, p. 67, lines 4-11).

17 Electricity is a critical and irreplaceable commodity. Selling Non-Firm as Firm or
18 selling capacity that one does not own is a system problem even if markets can be
19 fooled in the short term.

20 **Q. In your expert opinion, are Dr. Acton's statements supported by standard**
21 **economic theory?**

22 A. No. Adulteration or counterfeiting is generally held to be a cost to society and not
23 a benefit. Dr. Acton proposes to praise counterfeiters rather than prosecute them.

24 **Q. Why is selling a product that you don't own bad for electric systems, even if**
25 **you aren't caught?**

1 A. A druggist who fraudulently dilutes antibiotics and then sells them is prosecuted
2 as a criminal even if the patient doesn't die. A counterfeiter who passes fake
3 currency is prosecuted even if the average consumer is fooled by his counterfeit
4 currency. Dr. Acton's testimony overlooks the fact that consumers actually
5 depend on electricity to operate their businesses and meet essential human needs.
6 If the product doesn't exist, no amount of innocent faith will protect the
7 consumer. Moreover, supplying inaccurate data to the electric market makes it
8 harder to operate the system safely, effectively, and efficiently.

9 **Q. Did Enron's fraudulent schemes present dangers to system reliability?**

10 A. Yes. For example, firm energy carries with it a promise of delivery. The promise
11 of firm energy is related to system planning and reserve standards and thus affects
12 system reliability. Stated metaphorically, when non-firm energy is represented to
13 be firm energy the electric power system is skating on ice that is thinner than the
14 "skater" expects. Even if the existing WECC standards are conservative, the
15 amount of energy involved is not too great, and all other loads and generation,
16 transmission and distribution components of the system work as planned, the safe
17 skater will at least want to know how thin the ice is so that an informed decision
18 can be made about whether to take a chance and continue, or to take another route
19 across thicker ice. There is simply no doubt that misrepresenting non-firm
20 resources as firm substantially increased the risk of service interruption to electric
21 consumers and that the risk was substantially greater than was expected by the

1 institutions that guard the reliability of the electric power systems in North
2 America.

3 **Q. How is firm energy related to system reliability?**

4 A. Firm energy is considered in planning as a component of all resources used to
5 assure the reliable operation of the entire system. If firm purchases are not really
6 firm, then the likelihood that an operating emergency will occur is increased
7 above the level expected by engineering planners who rely on the qualities of firm
8 purchases when assessing system reliability. The WECC standards define a Firm
9 Transaction as one that is not interruptible, and also state that the characterization
10 of a transaction should be made available to all control areas involved in the
11 transaction. Standards for the WECC can be found in several documents,
12 including "Western Electricity Coordinating Council Minimum Operating
13 Reliability Criteria,"³[mailbox://C%7C/Documents and](mailto://C%7C/Documents and Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C. McEntee/5272t6jd.slt/Mail/pop.ptld.qwest.net/Inbox?number=2079432459 -_ftn1)
14 [Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C.](mailto://C%7C/Documents and Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C. McEntee/5272t6jd.slt/Mail/pop.ptld.qwest.net/Inbox?number=2079432459 -_ftn1)
15 [McEntee/5272t6jd.slt/Mail/pop.ptld.qwest.net/Inbox?number=2079432459 -](mailto://C%7C/Documents and Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C. McEntee/5272t6jd.slt/Mail/pop.ptld.qwest.net/Inbox?number=2079432459 -_ftn1)
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17 Standards."⁴[mailbox://C%7C/Documents and](mailto://C%7C/Documents and Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C. McEntee/5272t6jd.slt/Mail/pop.ptld.qwest.net/Inbox?number=2079432459 -_ftn1)
18 [Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C.](mailto://C%7C/Documents and Settings/Administrator.MRESEARCH/Application Data/Mozilla/Profiles/Jesse C. McEntee/5272t6jd.slt/Mail/pop.ptld.qwest.net/Inbox?number=2079432459 -_ftn1)

³ http://www.wecc.biz/documents/library/procedures/operating/WECC_Reliability_Criteria_MORC_12-03-04.pdf (Ex. SNO-886)

⁴ http://www.wecc.biz/documents/library/procedures/planning/WECC-NEC_Planning%20Standards_4-10-03.pdf (Ex. SNO-888)

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fn2

Q. Should FERC accept the position that false representations about the nature of electric products should be excused?

A. No. Reliability standards are sacrosanct. If market participants provide false information to system operators, the system will not operate safely or reliably. With respect to the scheme Selling Non-Firm as Firm, FERC Staff's Final March 3, 2003 Report on Price Manipulation in Western Markets in Docket No. PA02-2-000 concludes:

This trading strategy also compromises reliability because non-firm energy improperly represented to be firm energy is not backed up with reserve generation by the supplying party. This problem is made worse when non-firm energy is imported into another control area. The receiving control area will not procure reserves for the import under the illusion that the supplying party is responsible for providing adequate generation reserves.

(Final Staff Report at VI-34).

Q. Is Dr. Acton's direct testimony on behalf of Enron in this case consistent with the Commission's prior rulings?

A. No. The Commission has already determined that the eight trading practices discussed in Dr. Acton's direct testimony constitute gaming or anomalous market behavior that violates the ISO and PX tariffs (*American Electric Power Service Corp., et al.*, 103 FERC ¶ 61,345, at PP 35, 17, 18, 25, 48, 55 (2003)). Contrary to the conclusions already reached by the Commission, Dr. Acton argues that at least six of the eight trading practices do not constitute gaming or anomalous

1 market behavior that violates the ISO and PX tariffs because, in Dr. Acton's
2 opinion, these trading practices did not pose a detriment to market efficiency or
3 consumers and did not depart significantly from the normal behavior of firms in
4 competitive markets nor lead to unusual or unexpected outcomes. (Ex. ENR-42,
5 pp.2-3). Rather than requesting rehearing of the Commission's conclusion that
6 these trading practices constitute gaming or anomalous market behavior that
7 violates the PX and ISO tariffs, Enron launched a collateral attack on the
8 Commission's prior rulings in Dr. Acton's direct testimony. Dr. Acton's direct
9 testimony also conflicts with findings already made by the Commission in the
10 Enron show cause proceeding in Docket EL03-77, wherein FERC revoked
11 Enron's market-based rate authority beginning on June 25, 2003. For example,
12 Dr. Acton purports that there was no "adverse impact" on rates as a consequence
13 of Enron's involvement in six of the eight gaming practices. (Ex. ENR-42, p. 7).
14 However, the Commission has already ruled that Enron's acts of market
15 manipulation, including the gaming schemes discussed in Dr. Acton's testimony,
16 "resulted in unjust and unreasonable rates." (*Enron Power Marketing, Inc., et al.*,
17 103 FERC ¶ 61,343, at P 56 (2003), *rehearing denied*, 106 FERC ¶ 61,024, at P
18 30 (2004)). As the Commission recognized, "[r]ates that permit exploitation,
19 abuse, overreaching or gouging are *by themselves* not 'just and reasonable.'" (106
20 FERC ¶ 61,024, at P 29 (citations omitted) (emphasis in original)).

21 **Q. Are Dr. Acton's arguments on behalf of Enron in this case consistent with**
22 **Enron's own documents and trader tapes?**

1 A. No. Enron's own attorneys concluded previously that trading practices, such as
2 Non-Firm Export, Load Shift, Get Shorty, Ricochet, and Selling Non-Firm as
3 Firm, violated the ISO tariff provisions prohibiting gaming and anomalous market
4 behavior. (Ex. SNO-64 at pp. 4-7). Moreover, Enron's own documents and
5 trader tapes acknowledge that Enron was causing detriments to market efficiency
6 and consumers. For example, in a conversation that took place on November 30,
7 2000, Enron traders not only acknowledged detriments to consumers, but
8 displayed a shockingly, callous disregard for their welfare:

15 KEVIN: So the rumor's true? They're fuckin' takin' all the money back from you guys? All
16 those money you guys stole from those poor grandmothers in California?

17 BOB: Yeah, grandma Millie, man. But she's the one who couldn't figure out how to fuckin'
18 vote on the butterfly ballot.

19 KEVIN: Yeah, now she wants her fuckin' money back for all the power you've charged
20 right up – jammed right up her ass for fuckin' 250 dollars a megawatt hour.

21 [laughter]

(Ex. SNO-224 at p.1).

11 Enron certainly knows that its schemes to increase the energy prices paid to Enron
12 for purposes of maximizing Enron's own profits were detrimental to market
13 efficiency and consumers because Enron's own documents recognize that higher
14 energy prices led to a recession in the economy of California (and other Western
15 states), resulted in industrial plant shut downs and higher unemployment, reduced
16 consumer spending, eroded the purchasing power, disposable income and
17 personal savings of consumers, and made planning and the ability to forecast

1 expenses more difficult. (Ex. SNO-908). An example of how Enron knew the
2 effects its schemes had on the market is found in Ex. SNO-233:

3
4 PAUL: Yeah. So, ah, what we need to do is to help in the cause of ah, downfall
5 of California – n – [chuckles] and I – it’s not [inaudible], it’s economic decision-
6 wise, you guys need to pull your megawatts out of California on a daily basis –

7
8 STEVE: Yeah.

9 (Ex. SNO-233).

10
11 **Q. Are the economic theories or positions espoused by Dr. Acton on behalf of**
12 **Enron in this case consistent with economic theories or positions Dr. Acton**
13 **has taken previously in other cases or publications?**

14 A. No. As stated above, Dr. Acton has taken the position here that Enron’s gaming
15 activity actually improved the efficiency of the markets in California. He makes
16 these claims without defining efficiency in his testimony. In stark contrast, Dr.
17 Acton has, in his role at the Rand Institute, prepared analyses based upon a very
18 precise and more logical economic definition of efficiency. Specifically, in his
19 monograph “The Tradeoff Between Equity and Efficiency in Electric Utility Rate
20 Structures: A Comment on the TVA Approach” (May 1993), Dr. Acton explores
21 public policy options that address the effects of rapidly rising energy prices. As
22 an advocate for efficiency, Dr. Acton defines efficiency: “If the primary objective
23 of social policy is efficiency in energy use, then price should be set equal to
24 marginal cost.” (Ex. SNO-912, p. 8). However, in Dr. Acton’s testimony, he

1 never once discusses how Enron's games move prices toward marginal cost. Dr.
2 Acton therefore fails to test his assertion about improved efficiency, and fails to
3 explain how the provision of false information can move prices closer to marginal
4 costs. His conclusion lacks analytic rigor and should be dismissed.

5 **1. False Import (also known as Ricochet or Megawatt**
6 **Laundering)**

7 **Q. What is Dr. Acton's position on Ricochet?**

8 A. Dr. Acton argues that evading price caps in California might have even benefited
9 consumers because, "California consumers are better off if the energy is returned
10 to California markets or, in this case, not exported on net, since this alternative
11 yields a greater supply of energy to meet California load." (Ex. ENR-42, p. 24).
12 This is a very strange comment. Ricochet was a fictitious scheduling choice made
13 by Enron. While Enron could have sold the power to anyone it chose, it elected
14 to schedule the power to locations outside of the California ISO and then wait
15 until real time for an anticipated emergency. However, even Enron could not
16 have forced the energy to actually leave the state. Overall Northwestern loads ran
17 approximately 1.7% less than forecast during the crisis. (EX. SNO-904, p. 36-P
18 40). If Enron had found a customer who wanted the power it was planning to
19 Ricochet, the customer's existing supply would not have disappeared – it would
20 have simply been on the market. The California customer Enron chose not to
21 serve by their export would have then had a chance to purchase the energy. This
22 standard feature of markets would not have served Enron's purposes, however,

1 since normal transactions would not have created the illusion of scarcity that
2 Enron was pursuing. Moreover, Enron would have lost the additional OOM
3 revenues it could receive by creating the illusion of scarcity. The following two
4 charts show actual reserves for the Pacific Northwest for 2000 and 2001. As is
5 clear from the actual numbers, the Pacific Northwest was not in dire straits, nor
6 did utilities in the Northwest declare capacity emergencies:
7

Table 15 - Northwest Power Pool Area Actual Loads and Resources for 2000

<u>PEAK DEMAND – MW</u>		<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Loads -	Firm	54236	51617	49395	46915	46071	47939
	Interruptible & Load Mgt	<u>768</u>	<u>815</u>	<u>826</u>	<u>782</u>	<u>771</u>	<u>877</u>
	Total	55004	52432	50221	47697	46842	48816
Forecast Deviation - %		-4.5	-3.6	-2.8	-3.3	-3.4	2.2
Generation -	Hydro	45048	44693	45174	45147	45588	46152
	Thermal	25067	25060	25497	25419	25502	25667
	Other	<u>1054</u>	<u>1054</u>	<u>1054</u>	<u>1028</u>	<u>1028</u>	<u>1042</u>
Total		71169	70807	71725	71594	72118	72861
Total Unavailable Generation *		3779	4211	4912	8655	6116	7258
Net Firm Transfers -	MAPP **	-115	-173	-126	-133	4	-94
	RMPA **	-177	-365	-175	4	-764	-1231
	AZ-NM-SNV **	-636	-338	-228	-191	20	-27
	CA-MX	<u>4070</u>	<u>3116</u>	<u>3917</u>	<u>4655</u>	<u>3578</u>	<u>4621</u>
	Total Net Firm Transfers	3142	2240	3388	4335	2838	3269
Net Generation & Firm Transfers		64248	64356	63425	58604	63164	62334
Margin Over Firm Loads - MW		10012	12739	14030	11689	17093	14395
Margin Over Firm Loads - Percent		18.5	24.7	28.4	24.9	37.1	30.0
<u>ENERGY – GWH</u>							
Total Load		33150	29597	30289	27420	28439	28284
Forecast Deviation - %		-2.1	-1.4	-1.8	-2.9	0.2	1.5
<hr/>							
<u>PEAK DEMAND – MW</u>		<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
Loads -	Firm	49494	48533	45452	46718	52630	55160
	Interruptible & Load Mgt	<u>902</u>	<u>856</u>	<u>961</u>	<u>1047</u>	<u>1066</u>	<u>1022</u>
	Total	50396	49389	46413	47765	53696	56182
Forecast Deviation - %		2.5	1.6	-1.3	-5.4	0.1	-4.8
Generation -	Hydro	46068	45888	46127	46095	45451	45124
	Thermal	25662	25660	25745	25859	25874	25997
	Other	<u>1043</u>	<u>1043</u>	<u>1043</u>	<u>1085</u>	<u>1085</u>	<u>1085</u>
Total		72773	72591	72915	73039	72410	72206
Total Unavailable Generation *		6469	9243	9789	10321	8316	5810
Net Firm Transfers -	MAPP **	-193	-193	-282	-320	-315	-325
	RMPA **	-479	-479	-695	-716	-731	-769
	AZ-NM-SNV **	-89	-89	-541	-611	-854	-673
	CA-MX**	<u>4582</u>	<u>4582</u>	<u>5278</u>	<u>2461</u>	<u>794</u>	<u>-1504</u>
	Total Net Firm Transfers	3821	3821	3760	814	-1106	-3271
Net Generation & Firm Transfers		62483	59527	59366	61904	65200	69667
Margin Over Firm Loads - MW		12989	10994	13914	15186	12570	14507
Margin Over Firm Loads - Percent		26.2	22.7	30.6	32.5	23.9	26.3
<u>ENERGY – GWH</u>							<u>TOTAL</u>
Total Load		29490	29471	27019	28142	30690	32605 354596
Forecast Deviation - %		-1.2	-3.5	-3.7	-3.4	1.0	-3.2 -1.7

* Includes Maintenance, Forced Outages, and Inoperable Capability.

** Minus (-) indicates transfer into NWPP.

Table 15 - Northwest Power Pool Area Actual Loads and Resources for 2001

<u>PEAK DEMAND – MW</u>		<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>
Loads -	Firm	52349	51882	47518	44981	44062	43683
	Interruptible & Load Mgt	<u>245</u>	<u>335</u>	<u>297</u>	<u>300</u>	<u>272</u>	<u>294</u>
	Total	52594	52217	47815	45281	44334	43977
Forecast Deviation - %		-8.1	-2.1	-5.0	-6.4	-3.3	-9.2
Generation -	Hydro	42576	42077	42091	41910	42663	42945
	Thermal	25791	25809	25796	25668	25898	26371
	Other	<u>1008</u>	<u>1007</u>	<u>1014</u>	<u>1025</u>	<u>1026</u>	<u>1034</u>
Total		69375	68893	68901	68603	69587	70350
Total Unavailable Generation *		3790	4882	6253	8519	10446	8155
Net Firm Transfers -	MAPP **	-85	15	-36	-35	-106	-138
	RMPA **	-976	-1072	-911	-876	-1011	-755
	AZ-NM-SNV **	-799	-803	-844	-901	-294	-73
	CA-MX **	<u>340</u>	<u>-1020</u>	<u>-368</u>	<u>-162</u>	<u>1757</u>	<u>4674</u>
	Total Net Firm Transfers	-1520	-2880	-2159	-1974	346	3708
Net Generation & Firm Transfers		67105	66891	64807	62058	58795	58487
Margin Over Firm Loads - MW		14756	15009	17289	17077	14733	14804
Margin Over Firm Loads - Percent		28.2	28.9	36.4	38.0	33.4	33.9
<u>ENERGY – GWH</u>							
Total Load		31328	27832	27927	25689	26100	25234
Forecast Deviation - %		-7.6	-4.8	-8.6	-8.9	-7.2	-9.3
<u>PEAK DEMAND – MW</u>		<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>
Loads -	Firm	43952	44444	42053	44770	49620	50908
	Interruptible & Load Mgt	<u>253</u>	<u>245</u>	<u>251</u>	<u>194</u>	<u>231</u>	<u>214</u>
	Total	44205	44689	42304	44964	49851	51122
Forecast Deviation - %		-10.2	-7.1	-9.5	-9.5	-6.4	-12.1
Generation -	Hydro	41223	40868	40651	40529	40413	42626
	Thermal	26713	26747	26956	27279	27586	27932
	Other	<u>1028</u>	<u>1038</u>	<u>1083</u>	<u>1091</u>	<u>1092</u>	<u>1256</u>
Total		68964	68653	68690	68899	69091	71814
Total Unavailable Generation *		7371	7583	9867	10757	9525	8187
Net Firm Transfers -	MAPP **	-59	-83	41	-36	-129	90
	RMPA **	-519	-192	-321	-556	-421	-412
	AZ-NM-SNV **	-53	-177	466	-323	-771	-462
	CA-MX	<u>4919</u>	<u>2592</u>	<u>2996</u>	<u>1413</u>	<u>2375</u>	<u>3052</u>
	Total Net Firm Transfers	4288	2140	3182	498	1054	2268
Net Generation & Firm Transfers		57305	58930	55641	57644	58512	61359
Margin Over Firm Loads - MW		13353	14486	13688	12874	8892	10451
Margin Over Firm Loads - Percent		30.4	32.6	32.3	28.8	17.9	20.5
<u>ENERGY – GWH</u>							<u>TOTAL</u>
Total Load		26006	26379	24101	26305	27039	30158
Forecast Deviation - %		-13.0	-13.4	-14.2	-11.6	-12.7	-12.5
							-10.4

* Includes Maintenance, Forced Outages, and Inoperable Capability.

** Minus (-) indicates transfer into NWPP.

(Exs. SNO-903 & 904).

Q. In your opinion, did the gaming practice of Ricochet pose detriments to efficiency or consumers?

A. Of course it was detrimental. For example, on the first day of the crisis, Enron exported power apparently purchased from the California ISO to the Pacific Northwest and then resold this same power back to the California ISO. (Ex. SNO-875). There clearly was no legitimate economic logic to this fictitious transaction. The purpose was to create the illusion of a shortage of capacity in California, evade the California price caps, and increase prices paid to Enron. Once the California ISO declared an emergency, the ISO had to pay \$750/MWh to “import” this energy back into the State. This practice was detrimental to consumers in a number of ways. It:

1. Created an illusory shortage;
2. Forced the California ISO into inefficient real time operations;
3. Degraded system reliability;
4. Moved purchases closer to real time when demand was less elastic;
5. Caused the ISO to pay artificially elevated prices; and
6. Caused the ISO’s buying behavior, in turn, to affect prices throughout the West.

Q. How was the illusion of shortage created?

1 A. The first step of the Ricochet, exporting power from California, created the
2 illusion of shortage in California. Enron was taking prescheduled power and
3 waiting until the last moment to sell it in the real time market.

4 **Q. Is creating the illusion of shortage generally-accepted, competitive market**
5 **behavior?**

6 A. No. In a competitive market, providers would not be able to profitably withhold
7 supply. In order to create the illusion of shortage a provider would either have to
8 exercise market power or collude with others.

9 **Q. Do you believe that Ricochet caused the ISO to operate less efficiently?**

10 A. Yes. I agree with California Parties witness Mr. Read's analysis that:

11 First, since the price elasticity of demand in the Real Time market is
12 close to zero, the transfer of resources from DA and HA markets to the
13 RT market facilitated the exercise of market power by sellers. Second,
14 supply reductions in the DA and HA markets may have induced the
15 ISO to make additional reserve purchases and thus incur additional
16 costs. Third, the withdrawal of capacity from the DA and HA markets
17 could distort the ISO's picture of resource balances causing it to
18 increase OOM imports at costs that exceed market clearing prices.
19 Fourth, DA and HA supply reductions associated with false import
20 create "a sense of shortage" within the ISO and increase operational
21 challenges for the ISO.

22 (Ex. CP-35, p. 17).

23 **Q. Has the ISO found that Ricochet was detrimental to system reliability and**
24 **consumers?**

25 A. Yes. Terry Winter, President and Chief Executive Officer of the CAISO, testified
26 before the United States Senate Committee on Energy and Natural Resources on
27 May 15, 2002 and submitted a chart identifying the various Enron gaming

1 strategies describing, among other things, the strategies' impacts on the market.

2 Regarding Ricochet, Mr. Winter concluded that such transactions "[e]xacerbated
3 the impact of overall market power on system reliability and costs to consumers."
4 (Ex. SNO-18).

5 **Q. Why is the fact that Enron pushed the sale of power closer to real time**
6 **important?**

7 A. The technical reason was explained by Dr. Acton in response to a Snohomish data
8 request in this proceeding:

9 Generally, demand elasticity is lower at shorter time horizons, since
10 buyers have fewer alternative ways to meet their needs as the time of
11 delivery approaches.

12 (Ex. SNO-911).

13 The lower demand elasticity enhanced Enron's ability to exercise market power
14 and squeeze higher prices out of the ISO. The ISO's purchase of power at higher
15 prices then drove prices higher throughout the West.

16 **Q. What level of profits did Dr. Acton acknowledge Enron received in**
17 **connection with the gaming practice of Ricochet?**

18 A. None. Based on his limited analysis of data produced by the ISO on July 15,
19 2003, Dr. Acton claims there is no evidence that Enron engaged in Ricochet
20 during the period May 2000 to October 1, 2000. (Ex. ENR-42, pp. 22-23).
21 Therefore, Dr. Acton concludes that Enron did not make any profits from this
22 gaming scheme.

23 **Q. Is Dr. Acton's direct testimony accurate?**

1 A. No. A transcript of an Enron trader conversation, which occurred on August 10,
2 2000 boasts of personal financial gains from Ricochet of “200 grand” for that one
3 trader alone:

4 DIANA: Yeah do you know how much overage, um, John Forney
5 gave me for the ricochet deals and all that stuff?

6 PERSON 1: How much?

7 DIANA: For actually just the ricochet deal he gave me 200 grand.

8 PERSON 1: That’s sweet.

9 DIANA: Mm hm.

10 PERSON 1: *[to someone else]* Thank you very much. *[back to*
11 *conversation]* Oh, so you gotta be way over a million now.

12 (Ex. SNO-214).

13 Furthermore, these figures fail to reflect the fact that Enron’s schemes were
14 cumulative in nature and Enron profited both directly and indirectly from its
15 schemes in the spot and forward markets. They also do not encompass the full
16 time period now at issue in this case. In my opinion, Enron should be prohibited
17 from retaining or obtaining profits under all contracts or transactions executed by
18 Enron in the Western Interconnect during the period January 16, 1997 to June 25,
19 2003.

20 **Q. What evidence have you found confirming that Enron evaded ISO price caps**
21 **by engaging in Ricochet?**

22 A. Enron’s trader tapes contain admissions that Enron was engaged in Ricochet,
23 including during the period May 2000 to October 2000, wherein Dr. Acton claims
24 no Ricochet occurred. (Ex. ENR-42, pp. 22-25). In addition to the August 10th,

1 2000 conversation about Ricochet described above, a conversation held on
2 August 8th, 2000, acknowledges that Enron was engaging in Ricochet:

3 JESSE: Yeah, 32 megawatts Four Corners. We bought from the PX.

4 PERSON 2: Right. OK, who's – who's the sink?

5 JESSE: The sink is the ISO.

6 PERSON 2: Oh, well say that's a ricochet, at Four Corners?

7 JESSE: On – yeah, on the schedule, ah – the Smith schedule that L –
8 that Leaf mentioned to you. Just takin' it back in to the ISO to serve
9 load.

10 PERSON 2: OK.

11 (Ex. SNO-167).

12 Enron documents also evidence that Enron engaged in Ricochet. For example,
13 the Inc Sheet for December 8, 2000 shows a Ping Pong transaction in which
14 Enron scheduled 17 MW out of the ISO and then back into the ISO at
15 \$800.00/MW -- at a time when the ISO price cap was \$750.00/MW. (Ex. SNO-
16 732) In his guilty plea agreement, John Forney, Enron's Real Time Manager,
17 admits "on at least one occasion, Enron improperly sold electricity for a price
18 above the California ISO's price cap...this was known within Enron as 'Ricochet'.
19 (Ex. S-75, p. 23). FERC's Final Staff Report on Price Manipulation in Western
20 Markets further finds that the first week of December 2000 was an especially
21 critical period in which several entities engaged in Ricochets that potentially
22 generated \$10 million in profits, Enron being one of them. (Final Staff Report,
23 VI-18).

24 **Q. Can you provide a few other glaring examples of evidence relating the**
25 **gaming practice of Ricochet that Dr. Acton overlooked?**

- 1 A. Yes. Materials available from Enron's own files include, for example:
- 2 • Yoder/Hall memo which describes specific Enron trading strategies that
3 are prohibited by the ISO's tariff, including Ricochet. The memo includes
4 a discussion specifically about Ricochet (Ex. SNO-64) stating, "it is clear
5 that Enron's intent under this strategy is solely to arbitrage the spread
6 between the PX and the ISO, and not to serve load or meet contractual
7 obligations."
 - 8 • Enpower database. For example, on May 22, 2000, the deal comment
9 field in Enpower reads: "RT helping out the ENRON FLOOR, taking
10 MW's out of the ISO, selling back to the ISO OUT OF MARKET, this
11 buy resell is to give them \$5 for flipping these MW's back to ISO." (Ex.
12 SNO-721).
 - 13 • Inc Sheets. For example, the Inc sheet for May 22, 2000 has the
14 comment: "ENRON FLOOR POSITION sold to ISO out of market
15 bounced it off PAC for \$5 (B 80 @ S 75)." (Ex. SNO-732).
 - 16 • Sabo Interview in which former Enron trader and member of Enron's Risk
17 Management group Valerie Sabo, specifically discusses Enron's use of
18 Ricochet. Sabo describes Ricochet as occurring when a company
19 schedules in California in such a way so as to make it look like power left
20 California, when in fact, it never leaves the control area. (Ex. SNO-738).

21 **2. Cutting Non-Firm (also known as Non-Firm Export)**

22 **Q. Does Dr. Acton concede that the scheme known as Cutting Non-Firm neither**
23 **improves efficiency nor benefits consumers?**

24 A. Yes, he does. (Ex. ENR-42, p.71).

25 **Q. Has Dr. Acton addressed the negative effects that the ISO has identified for**
26 **Cutting Non-Firm exports?**

27 A. No.

28 **Q. What negative effects on the market has the ISO found with respect to the**
29 **practice of Cutting Non-Firm have on the market?**

1 A. The ISO has found that this practice of Cutting Non-Firm “adds to the probability
2 of real time congestion, and may impose detrimental impact system cost and
3 reliability if real time congestion occurs.” (Ex. SNO-18, p. 4).

4 **Q. Does Dr. Acton recognize that Enron’s profits from this scheme should be**
5 **disgorged, and if so, what is Acton’s estimation of these profits?**

6 A. Yes. Dr. Acton recognizes that \$54,414 should be disgorged as unjust revenues
7 earned from the scheme Cutting Non-Firm as Firm. (Ex. ENR-42, p.70).

8 **Q. Do you believe that this is an accurate figure?**

9 A. Hardly. Dr. Acton ignored Enron documents containing far higher profit figures
10 for this scheme. For example, handwritten notes obtained by Snohomish in
11 response to a subpoena issued to Jean Frizzell of Gibbs & Bruns L.L.P., a law
12 firm working for Enron, indicate that congestion fees earned from Cutting Non-
13 Firm as Firm were at least \$2.6 million. (Ex. SNO-754). The meeting notes of
14 another Enron attorney, named Mary Hain, list \$3 million under the heading Non-
15 Firm Export. (Ex. SNO-79, p. 16). Even these higher figures, however, are
16 unlikely to capture all of Enron’s profits. They fail to reflect the fact that Enron’s
17 schemes were cumulative in nature and Enron profited both directly and indirectly
18 from its schemes in the spot and forward markets. They also do not encompass
19 the full time period now at issue in this case. In my opinion, Enron should be
20 prohibited from retaining or obtaining profits under all contracts and transactions
21 executed by Enron in the Western Interconnect during the period January 16,
22 1997 to June 25, 2003.

1 **Q. Can you provide a few other glaring examples of evidence relating to gaming**
2 **practice of Cutting Non-Firm that Dr. Acton ignored in his testimony?**

3 **A. Yes. For example, materials available in Enron's files that were not cited include:**

- 4 • Original Stephen Hall memo which includes a detailed description of
5 trading strategies Enron traders used, including Non-firm export. (Ex.
6 SNO-62)
- 7 • Yoder/Hall memo which describes trading strategies used by Enron that
8 were prohibited by the ISO's tariff, such as Cutting Non-Firm. The memo
9 includes a discussion specifically about non-firm export and the fact that
10 as a part of this scheme, non firm-energy was cut and as a result never
11 actually exported. (Ex. SNO-64)
- 12 • Memo from Sanders to Fergus & Frizzell regarding Status Report on
13 Further Investigation and Analysis of EPMI Trading Strategies. In a
14 discussion of non-firm export, the memo states that after having scheduled
15 counterflows three hours ahead of actual energy flow EPMI then
16 "qualified for the congestion relief payment two hours before the
17 scheduled flow. Ultimately, EPMI did not flow the power." (Ex. SNO-71)
- 18 • Inc Sheets. For example, the May 22, 2000 Inc sheet has the following
19 comment: "non firm export for HE14, 25mw's ISO CUT." (Ex. SNO-732)
- 20 • Enpower to CAPS Reconciliations. For example, the printed report for
21 6/27/2000 has the following handwritten comment: "...Mike cut non-
22 firm exports for HE 14,15,16 @ malin. RT balances. . . ." (Ex. SNO-736)
- 23 • 1999 Kim Ward email in which Ward pens, "Our trading strategy is to
24 export as much as we can, non-firm and then cut it hour ahead." This "will
25 give the same effect as parking in California without paying the ancillary
26 services. We want to do this to keep prices up for July." (Ex. SNO-748)
- 27 • Mary Hain's FERC Deposition (Ex. SNO-35, pp.178-179) discusses Non-
28 Firm Export and earnings of "3 million dollars."

29
30 **3. Circular Scheduling (also known as Death Star)**

31 **Q. What is Dr. Acton's analysis of the impact of Death Stars?**

32 **A. Dr. Acton takes the position argued previously by witnesses for PGE, Mr. Tabors**
33 **and Ms. Cardell, that deceptive practices were required to fully utilize**

1 transmission owned by utilities outside of the California ISO. (Ex. ENR-42, p.
2 27). He uses an especially evocative phrase – getting out-of-state transmission
3 into the “congestion model calculus” in his attempt to justify this scheme. (Ex.
4 ENR-42, p. 27). In other words, under the theory adopted by Dr. Acton, this
5 deceptive practice was required for transmission access on LADWP’s lines.

6 **Q. Was deception necessary to utilize LADWP’s transmission?**

7 A. Certainly not. If a market participant wanted to utilize the LADWP transmission,
8 transmission could simply be scheduled with LADWP’s scheduling operation.
9 There was no operational reason to submit fraudulent or off-setting schedules
10 designed to produce no actual flow of power. As Dr. Hildebrandt states in his
11 deposition, if there is any excess capacity in the Real Time market the LADWP
12 transmission lines automatically become available for ISO dispatch. (Ex. SNO-
13 901, pp. 73-80).

14 **Q. Why is Death Star a deceptive practice?**

15 A. The Death Star is based upon defrauding the ISO. Since a portion of Death Star
16 transactions occur on transmission capacity beyond the view of the ISO, the ISO
17 did not know that the transactions were circular. Therefore, the ISO believed that
18 congestion had been relieved and paid for the false congestion relief.

19 **Q. Does the filing of fraudulent schedules pose costs to the system?**

20 A. Of course. The non-existent energy flows occupied capacity on lines used to
21 “cap” the Death Stars. In the early Death Stars, a complex set of schedules
22 occupied transmission lines from Grizzly to Portland and then from Portland to

1 the head of the AC intertie. While there were no flows attached to these
2 schedules, the owners of the lines did not necessarily know that the schedules
3 were imaginary. BPA, for example, was not a party to the deception, so it acted
4 as if real energy was going to flow along their portion of the AC intertie.

5 **Q. In your opinion, did the gaming practice of Circular Scheduling pose**
6 **detriments to efficiency or consumers?**

7 A. Certainly. If there was some flaw in the “congestion calculus,” Enron should
8 have brought it to the attention of the ISO, to the utilities outside the ISO, and, if
9 necessary FERC, rather than relying on a secretive and fraudulent approach to
10 transmission scheduling.

11 **Q. In your opinion, did the gaming practice of Circular Scheduling jeopardize**
12 **the reliability of the Western interconnected power system?**

13 A. Yes. The main reason is that it provided a distorted picture of system conditions
14 to the system operators. The problem with filing false schedules is that when
15 actual operations need to be adjusted on an emergency basis, it is impossible to
16 know which schedules are critical to system operation and which are simply
17 schemes. Enron’s practice of exporting energy on a non-firm basis and then
18 importing the same energy back to California on a firm basis made this even more
19 dangerous. If a true emergency had struck during a Death Star, California
20 operators would naturally assume that cutting the non-firm export would pose no
21 risk to the system. What they did not know – and could not know given the
22 deception being practiced upon them – was that this non-firm export “supported”

1 the firm import that they were using to support the system. This type of fraud
2 could easily have brought down the California system and the entire Western
3 Interconnection.

4 **Q. In your opinion, did the gaming practice of Circular Scheduling depart**
5 **significantly from normal behavior in competitive markets that do not**
6 **require continuing regulation or lead to unusual or unexplained outcomes?**

7 A. Absolutely. There is no question that this behavior would be viewed as very
8 unusual in normal competitive markets – so unusual that it is almost impossible to
9 think of a comparable practice. If we heard of freight trains carrying non-existent
10 product from California through Oregon and then back to California, we would
11 check the sanity of both the shippers and the railroad engineers.

12 **Q. Do you agree with Dr. Acton’s assertion (Ex. ENR-42, pp. 26-27) that it was**
13 **necessary to submit circular schedules so the CAISO could “see” available**
14 **out-of-state generation?**

15 A. Not at all. Deception is not an acceptable business practice. If Enron was
16 concerned that the ISO was not able to schedule transmission owned by Redding,
17 NCPA, and LADWP, the appropriate solution would have been to open
18 negotiations between the parties, not undertake a complex set of fraudulent
19 schedules. Economic theory should have created a simple bilateral market for
20 transmission access for the capacity on existing transmission rights. When
21 congestion charges were high going from north to south, the existing transmission
22 rights holders could conduct buy/sells to offset some of the congestion. Of

1 course, this simple solution need not have been either secret or fraudulent,
2 although the benefits would have gone to the owners of the transmission rights,
3 not Enron.

4 **Q. Do you agree with Dr. Acton's statement that circular schedules helped**
5 **relieve congestion?**

6 A. No. I agree with California Parties' witness Mr. Hanser's explanation of how
7 Circular schedules increased congestion:

8 Enron's Death Star transactions essentially withheld ETC that could
9 have been used for actual power flows, rather than fictitious, circular
10 flows. In doing so, Enron effectively removed ETC capacity out of the
11 forward market and exacerbated congestion.

12 (Ex. CP-47, p. 46).

13 Enron's false counter-flow schedules displaced legitimate offers from market
14 participants who could have truly relieved congestion. This displacement of
15 legitimate congestion relief offers in the day-ahead market forced the ISO to
16 obtain more congestion relief in the real-time market. (Ex. CP-47, p. 50).

17 **Q. Do you agree with Dr. Acton that Circular Scheduling creates a beneficial**
18 **economic effect within the ISO control area?**

19 A. No. Circular schedules did not benefit the CAISO system. To the contrary, they
20 made the system more vulnerable to price volatility and they decreased reliability.
21 (Ex. SNO-710 & Ex. SNO-901, pp. 57-68). Dr. Acton's argument is flawed from
22 the beginning. In his testimony he describes a wheel transaction as follows:

23 ...assume that this same SC (or another entity) scheduled a 24 MW
24 transaction from the Pacific Northwest to the Southwest using

1 transmission rights belonging to an entity that had not turned its
2 transmission system over to the CAISO. From the standpoint of the
3 CAISO nothing changes; it still has a 24 MW export from the North to
4 the Pacific Northwest and a 24 MW import from the Southwest into the
5 South. It can still schedule generation to exceed loads in the north by
6 124 MW and load to exceed generation in the south by 124 MW
7 because it sees a 24 MW counterflow. What it does not see is that
8 someone else's transmission capacity is being used to provide
9 transmission services for 24 MW from north of California to south of
10 California. This transaction would be considered a "Death Star"
11 transaction because it does involve a Circular Schedule. However it has
12 the same beneficial economic effect as a schedule that is not circular.⁵

13
14
15 Whereas the FERC definition in the Show Cause Order is:

16
17 The second Congestion-Related practice is Circular Scheduling, also
18 sometimes referred to as "Death Star." The Circular Scheduling
19 practice involved the market participant scheduling a counterflow in
20 order to receive a congestion relief payment. In conjunction with the
21 counterflow, the market participant scheduled a series of transactions
22 that included both energy imports and exports into and out of the ISO
23 control area and a transaction outside the ISO control area in the
24 opposite direction of the counterflow back to the original place of
25 origin. With the same amount of power scheduled back to the point of
26 origin, however, power did not actually flow and congestion was not
27 relieved. Circular Scheduling was profitable as long as the congestion
28 relief payments were greater than the cost of scheduled transmission.

29
30 (103 FERC ¶ 61,345 at P 43.)

31 According to Dr. Acton, a circular schedule is an industry wide practice of
32 wheeling power. However the FERC definition is significantly different because
33 it mentioned scheduling power in opposite directions with the same amount of
34 power being scheduled back to the point of origin. According to the FERC
35 definition, the trading practice makes no economic sense whatsoever yet

⁵ Ex. ENR-42 at 37:6-18.

Dr. Acton claims that “‘Circular Scheduling’ was ‘required’ because the ISO did not ‘see’ transmission capacity that was out the ISO control area.” (Ex. ENR-42, p. 27). But if Enron was truly concerned about the use of parallel transmission in California, the efficient (and non-fraudulent) approach would have been to have contacted LADWP and the California ISO and solved the problem directly – without subterfuge, imaginary schedules, or disruption of schedules in the Pacific Northwest. The Inc Sheet from November 24, 1999 indicates the often covert nature of congestion relief strategies with the phrase “Don’t tell Redding we are relieving congestion.” (Ex. SNO-735).

HA ISO											

1 A. None. Dr. Acton claims that “no disgorgement is warranted or appropriate in
2 connection with this practice.” (Ex. ENR-42, p. 40). Dr. Acton’s position
3 conflicts, however, with documents contained in Enron’s own files. For example,
4 Mary Hain made the note “schemes = \$10m total” for Circular Scheduling. (Ex.
5 SNO-79, p. 15). Even Ms. Hain’s profit figure underestimates Enron’s financial
6 gains because this figure for a single gaming practice fails to reflect the fact that
7 Enron’s schemes were cumulative in nature and Enron profited both directly and
8 indirectly from its schemes in the spot and forward markets. The figure also does
9 not encompass the full time period now at issue in this case. In my opinion,
10 Enron should be prohibited from retaining or obtaining profits under all contracts
11 of transaction executed by Enron in the Western Interconnect during the period
12 January 16, 1997 to June 25, 2003.

13 **Q. Did Dr. Acton address Enron’s practice of exporting non-firm and then re-**
14 **importing it as firm within the Circular Schedule?**

15 A. No. As pointed out in my supplemental testimony (Ex. SNO-710), Forney’s
16 Perpetual Loop also included taking credit for firm imports into the ISO. This
17 practice adds to the reliability threat by deceiving the California ISO as to the
18 amount of capacity on their system.

19 **Q. Can you provide a few other glaring examples of evidence relating to the**
20 **gaming practice of Circular Scheduling (also known as “Death Star”) that**
21 **Dr. Acton ignored in his testimony?**

22 A. Yes. For example, materials that were available from Enron’s own files include:

- 1 • Original Stephen Hall memo which includes a detailed description of
2 trading strategies Enron traders used, including Death Stars. (Ex. SNO-
3 62)
- 4 • Yoder/Hall memo which describes trading strategies used by Enron that
5 were prohibited by the ISO's tariff, including Death Star. According to
6 the memo, Death Star, "earns money by scheduling transmission in the
7 opposite direction of congestion and then collects the congestion
8 payments. No energy, however, is actually put onto the grid or taken off."
9 The memo then goes into a hypothetical to further elucidate the practice.
10 (Ex. SNO-64)
- 11 • Geir Solberg email to Portland Shift detailing and explaining Death Stars
12 and how to record the transactions in CAPS. (Ex. SNO-72)
- 13 • Enpower database. For example, on May 10, 2000 the following comment
14 appears in the deal comment field: "Death Star buy resell with WWP, we
15 sell to WWP and they sleeve through PGE to give back to us at PGE
16 system." Similar comments by Enron traders identifying Death Star
17 transactions appear in Exs. SNO-721 & SNO-897.
- 18 • May 5, 2000 email from Mike Driscoll to Portland Shift titled "The final
19 Procedures for Death Star" which contains detailed instructions for the
20 successful implementation of Death Stars in order to capture congestion
21 relief across paths 26, 15 and COB. (Ex. SNO-99)
- 22 • Year end accomplishments of Mike Driscoll for 2000 which explicitly
23 acknowledged Enron's encouragement of ISO tariff manipulation via
24 employment of "Black Widow" and "Big Tuna" strategies amongst others.
25 Both "Black Widow" and "Big Tuna" are members of the Death Star
26 family. (Ex. SNO-113)
- 27 • Hall's notes describing specific discussions of Death Star scheduling
28 based on his review of Enron trader tapes. (Ex. SNO-731)
- 29 • Inc Sheets. For example, the May 1, 2000 Inc sheet has the comment:
30 "Tranny for project DEATHSTAR, formally known as "the loop."" (Ex.
31 SNO-732)
- 32 • Enpower to CAPS Reconciliation reports. For example, the report for July
33 18, 2000 contains the following handwritten comment: "Death Star'
34 trying to capture cong relief". (Ex. SNO-736)
- 35 • Les Rawson's Black Widow email which directs traders how to enter
36 Black Widow deals into Enpower and CAPS. (Ex. SNO-741)
- 37 • Diagram of Forney's Perpetual Loop, later referred to as Death Star, along
38 with a seven step implementation process. (Ex. SNO-742)

- Steve Coffin Affidavit which highlights the Real Time Traders' discussion of how they applied Death Star and scheduled the electrons to flow in a loop; also includes Forney's directive to refer to Death Star as "Cuddly Bear." (Ex. SNO-744)
- Stewart Rosman memo regarding "The LOOP"—Death Star's former name. (Ex. SNO-801)
- Diagram of Cong Catcher, which is a scheme also within the Death Star family. (Ex. SNO-813)
- Mary Hain's FERC Deposition (Ex. SNO-35, pp.178-179) discusses Death Stars and earnings of "6 million dollars."

4. Scheduling Counterflows on Out-of-Service Lines (also known as Wheel Out)

Q. Does Dr. Acton concede that the scheme known as Wheel Out neither improves efficiency nor benefits consumers?

A. Yes, he does. (Ex. ENR-42, p. 71)

Q. How would you characterize the fundamental economics of this game?

A. It is fraud. And, any revenues and profits earned are ill-gotten gains.

Q. Does Dr. Acton believe that the revenues earned from this scheme should be disgorged, and if so, what is his estimate of those revenues?

A. Yes. Dr. Acton states that the revenues appropriate for disgorgement total \$225,075. (Ex. ENR-42, p. 68)

Q. Do believe Dr. Acton's estimate is accurate?

A. No. This scheme generated much higher profits for Enron (Ex. SNO-58 at pp. 51-57), as evidenced by Enron's own documents. Mary Hain's notes, for example, list \$12 million for the real time desk under her Wheel Out section (Ex. SNO-79, p.19). Furthermore, even her figure fails to reflect the fact that Enron's schemes

1 were cumulative in nature and Enron profited both directly and indirectly from its
2 schemes in the spot and forward markets. It also does not encompass the full time
3 period now at issue in this case. In my opinion, Enron should be prohibited from
4 retaining or obtaining profits under all contracts of transactions executed by
5 Enron in the Western Interconnect during the period January 16, 1997 to June 25,
6 2003.

7 **Q. Can you provide a few other glaring examples of evidence relating to the**
8 **gaming practice of Wheel Out that Dr. Acton overlooked in his testimony?**

9 **A. Yes. For example, materials that were available in Enron's own files include:**

- 10 • Original Stephen Hall memo which includes a detailed description
11 summarizing and explaining trading strategies Enron traders used,
12 including Wheel Out. (Ex. SNO-62)
- 13 • Yoder/Hall memo which describes specific trading strategies that Enron's
14 traders applied in the California wholesale energy markets. In the Wheel
15 Out section, the memo states, "As a rule, the traders have learned that
16 money can be made through congestion charges when a transmission line
17 is out of service because the ISO will never schedule an energy delivery
18 because the intertie is constrained." (Ex. SNO-64)
- 19 • Yoder, Hall, and Fergus testimony before US Senate saying they were at
20 the October 2000 meeting where deceptive practices were revealed. (Ex.
21 SNO-69) Their testimony refers to their in depth study of the various
22 gaming schemes and the resultant creation of the above-mentioned
23 Yoder/Hall memo, which details many of the schemes traders used,
24 including Wheel Out.
- 25 • The Agenda from March 7, 2000 Real Time Staff Meeting discusses
26 trading strategies as well as concepts such as parking, congestion relief,
27 and profit sharing. (Ex. SNO-75) The document notes that there were
28 proficiency exams that were to be administered to traders regarding
29 various gaming schemes, including congestion relief schemes, of which
30 Wheel Out is an example.

- Draft Fact Summary- Based on a meeting between Tim Belden and Mary Hain (Ex. SNO-88), this document describes a Wheel Out scheme in great detail after it had been implemented.
- A February 4, 2000, Forney email to the Portland Shift (Ex. SNO-98) describes a Wheel Out scheme and its implementation.
- Mary Hain's FERC deposition (Ex. SNO-35, pp.178-179) discussing "Wheel Out" and earnings of "12 million dollars."

5. Load Shift

Q. Dr. Acton recommends that Load Shift not be addressed since the 2003 ISO materials do not address it. (Ex. ENR-42, p. 64) Is this supportable?

A. No. Dr. Acton's position is akin to closing your eyes as you run a red light. Avoiding unpleasant evidence is not the same as innocence.

Q. Did Dr. Acton undertake an analysis of Load Shift?

A. Only in the most superficial sense. Dr. Acton concludes that it was "not successful and therefore caused no discernible harm to California consumers, nor did it benefit market participants who may have engaged in it." (Ex. ENR-42, p. 64)

Q. In your opinion, did the gaming practice of Load Shift pose detriments to efficiency or consumers?

A. Yes. We know from the written notes of Enron's own outside counsel that this was intended to raise prices in Southern California and designed to create the false impression of congestion on Path 26. (Ex. SNO-731) Furthermore, the Yoder-Hall memo recognized that "by knowingly increasing the congestion costs, Enron is effectively increasing the costs to all market participants in the real time market." (Ex. SNO-64, p. 5) This practice is part of a consistent theme behind the

1 Enron gaming practices: the knowing provision of false information, which
2 distorts the view of both the ISO and all other market participants about the true
3 nature of the state of the system. This makes it more difficult for the market to
4 determine the true market clearing price, as set by the marginal cost of supply.
5 Through Load Shift, Enron has distorted the level of demand in the system, and
6 therefore, the price will clear at the wrong marginal cost. Using the definition of
7 efficiency espoused by Dr. Acton, while he was at the Rand Institute, the exercise
8 of Load Shift (and in fact all of the other games) reduces market efficiency.

9 **Q. Did Enron's own consultants acknowledge the inefficiencies caused by**
10 **problems on Path15/26?**

11 A. Yes. The Seabron and Imparato October 2000 report reviewed problems in the
12 structure of the California market. Among other points, it states:

13 However, inter-zonal price differences suggest that geographical price
14 convergence is highly incomplete as well. For example, in August
15 2000, during peak hours, SP15 prices were higher on average day-
16 ahead, reflecting the fact that north to south transactions were
17 congested in 53% of relevant hours. The patterns completely reverse in
18 the real-time ex post market, however. In this market, NP15 was at a
19 sustained premium, and the pattern of congestion is turned upside
20 down. This is counterintuitive, and suggests that the information –
21 especially about transmission between zones – needed to achieve
22 scheduling efficiency was unavailable. Otherwise, SCs could have
23 made 'free money' simply by submitting schedules. In an efficient
24 market with adequate information and low transaction costs, such a
25 strategy is impossible.

26 (Ex. SNO-659)

27 Apparently, Enron's own consultants had not been briefed on the reason why
28 actual flows matched schedules so poorly. The Load Shift schedules created the
29 appearance of flows from NP-15 to SP-15. However, the schedules had been

1 falsified to give just this impression. In actuality, a variety of the schedules --
2 especially loads -- simply did not exist. When ex-post prices were calculated, the
3 absence of these schedules created an entirely opposite picture of system
4 operations.

5 **Q. In your opinion, did the gaming practice of Load Shift depart significantly**
6 **from normal behavior in competitive markets that do not require continuing**
7 **regulation or lead to unusual or unexplained outcomes?**

8 A. Yes. In Load Shift, Enron filed false schedules in both Northern and Southern
9 California, filed adjustment bids designed to mitigate the implications of the false
10 schedules, and finally, received FTR revenues based on the various fraudulent
11 filings.

12 **Q. Did Enron traders understand that Load Shift was inappropriate behavior?**

13 A. Yes. The notes of Enron employees presented by the California Parties in Ex.
14 SNO-763 p.18 demonstrate that Enron employees clearly understood that Load
15 Shift was a prohibited activity. That is why they were developing a list of excuses
16 if caught by the ISO. Excuses included:

We could say just optimizing portfolio →
might have crossed our selves at sometimes →
we didn't do a very good job.
We weren't causing congestion → just increasing.
No one can prove → give complexity of our portfolio
we were just adjustment bidding – we just thought
it was going to be hot
→ someone
could submit counter flow ← the reason they
don't is it's too complicated.

(Ex. SNO-763)

Q. Is Dr. Acton's testimony on Load Shift credible?

A. No. According to Dr. Acton, Load Shift “may have been intended to profit from the idiosyncrasies of the ISO's congestion management system, but it was not successful...” and therefore failed to generate profits. (Ex. ENR-42, p.64) It defies credibility that a powerful, technically adept firm, such as Enron, would have pursued this scheme with dogged persistence again and again, if Enron failed to make any profits from this strategy. Enron's own documents show that Enron engaged in Load Shift on at least 332 days. (Ex. SNO-710, p.5). Moreover, contrary to Dr. Acton's testimony, Enron's documents show that Enron profited from this scheme and that the scheme was detrimental to economic efficiency or consumers. For example, the Yoder-Hall memo plainly states:

1 1. One concern here is that by knowingly increasing the congestion
2 costs, we are effectively increasing the costs to all market participants
3 in the real time market.

4 2. Following this strategy has resulted in profits of approximately \$30
5 million for FY 2000.

6 (Ex. SNO-64)

7 Mary Hain's notes also list \$30 million under heading "shift load." (Ex. SNO-79,
8 p.23)

9 **Q. Do you agree with Dr. Acton's testimony on Load Shift?**

10 A. No. Dr. Acton's analysis of Load Shift appears disingenuous at best. Based upon
11 the internal Enron documents discussed above, Load Shift was not only
12 profitable, but appears to have been one of Enron's more common schemes.

13 **Q. Is there additional data on Load Shift that was not available to Snohomish**
14 **before?**

15 A. Yes. On January 21, 2005, Enron produced one of Chris Mallory's excel
16 workbooks from Enron's Portland computer servers. This workbook was used to
17 calculate Load Shifts, and it contains information about Load Shifts for the period
18 January 1, 2000 to July 1, 2000. (Ex. SNO-916)

19 **Q. Does this allow you to determine additional Load Shift dates?**

20 A. Yes. Our previous analysis used the documentation from Enpower to CAPS
21 Reconciliation Reports. Enron failed to produce a number of these reports,
22 including for the period January 1, 2000 to June 1, 2000, so we have used
23 Mallory's Load Shift workbook to supplement some of the dates for which we do
24 not have Reconciliation Reports for purposes of rebutting Dr. Acton's testimony.

1 **Q. Did you find more hours and days on which Load Shifts occurred?**

2 A. Yes. Enron trader Chris Mallory's Load Shift workbook indicates Load Shifts on
3 at least twenty-three days. Fifteen of these twenty-three days are days which were
4 not identified by my earlier analysis. (Ex. SNO-915)

5 **Q. Dr. Acton claims that Enron was unsuccessful at Load Shift. Does Mallory's**
6 **Load Shift workbook indicate otherwise?**

7 A. Yes. Mr. Mallory's workbook contains an indication of Enron's profits regarding
8 load movement schedules. His summary identifies \$1,374,430 of "FTR Profit"
9 and \$1,626,214 of "Load Movement Profit" during the period January 1, 2000 to
10 July 1, 2000. The congestion profits shown in Mallory's workbook from the
11 twenty-three Load Shifts I have identified are approximately \$690,027. (Ex.
12 SNO-916)

13 **Q. Are you saying that Enron differentiated between FTR and load movement**
14 **profits?**

15 A. According to Enron trader Mallory's workbook, this appears to be the case. I
16 believe that when Mr. Mallory refers to load movement he is referring to net
17 payments by the ISO to Enron for adjusting Enron's load.

18 **Q. Can you provide a few other examples of glaring evidence on the gaming**
19 **practice of Load Shift that Dr. Acton overlooked in his testimony?**

20 A. Yes. For example, materials available in Enron's own files include:

- 21 • Original Stephen Hall memo which includes a detailed description
22 summarizing and explaining trading strategies Enron traders used,
23 including Load Shift. (Ex. SNO-62)

- Yoder, Hall, and Fergus testimony before US Senate saying they were at the October 2000 meeting where deceptive practices were revealed. (Ex. SNO-69) Their testimony refers to their in depth study of the various gaming schemes and the resultant creation of the above-mentioned Yoder/Hall memo, which details many of the schemes traders used, including Load Shift.
- Memo from Sanders to Fergus & Frizzell regarding Status Report on Further Investigation and Analysis of EPMI Trading Strategies. Load Shift is among the schemes discussed. (Ex. SNO-71)
- Enpower to CAPS Reconciliation reports. Handwritten notes on the front pages of these reports appear frequently. One such comment, for example on July 18, 200, reads: “Load shift to capture cong relief.” (Ex. SNO-736)
- A September 2000 email from Mara to Belden discussed her involvement in influencing the ISO decision to release some FTR’s that upcoming April. This relates directly to the Load Shift scheme, which depends on Enron having FTR's connecting two zones. (Ex. SNO-119)
- Inc Sheets. For example, the August 4, 2000 Inc sheet identifying a series of Load Shift transactions. (Ex. SNO-732)
- Fergus notes on Load Shift. (Ex. SNO-750)
- Stewart Rosman’s memo on FTR Load Shift which gives specific detailed directions on a variety of ways to apply Load Shift. For example, “Have Service DA customer outside CA with access to ENA FTR paths put a schedule in with no adjusted bid at their minimum price to increase the likelihood of being awarded and create congestion.” (Ex. SNO-798)
- Mary Hain’s FERC Deposition (Ex. SNO-35, pp.178-189) discusses FTR shift load, “spent 10 million, made 40 million.”

6. Paper Trading (also known as Get Shorty)

Q. What arguments does Dr. Acton make regarding the practice of Paper Trading?

A. Dr. Acton essentially argues that selling capacity that one does not own lowers costs to consumers:

The sale-plus-buy-back transactions increase the amount of reserve capacity bid into the CAISO’s Day Ahead market, and this additional supply reduces market-clearing prices—and therefore the CAISO’s

Day Ahead procurement costs—below what they would have been if Enron had never made these supply offers available to the Day Ahead market. Prices were reduced by sale-plus-buy-back transactions, whether the sale-plus-buy-back transaction was a Paper Trade or an arbitrage trade backed by available physical resources.

(Ex. ENR-1, p.50)

Q. What is your opinion of Dr. Acton's paper trading analysis?

A. Creative, but ultimately incorrect. One of the reasons that prices were so high in California was that the ISO was unable to procure sufficient bids to meet its reliability needs – even though the WECC studies indicate that no reserve shortage actually existed. (Ex. SNO-903 & Ex. SNO-904) If a real shortage had existed, selling reserves that were to be purchased later would have been a recipe for disaster. The ISO would have found itself depending on reserves that would not have existed.

Q. In your opinion, did the gaming practice of Paper Trading pose detriments to efficiency or consumers?

A. Absolutely. The problem is that the capacity did not exist. Selling placebos instead of real antibiotics can create an artificial increase in supply and decrease price. But, it also can lead to the death of patients who need the antibiotics. Counterfeiting currency can increase the money supply, but it also can create inflation since no product is created when the photocopier prints fake currency. Faking maintenance records on airplanes lowers costs which may lead to lower prices, but sometimes the airplanes fail catastrophically. In the case of Get Shorty, Enron was making a promise it could not meet. If a genuine emergency

1 had occurred during the crisis, Enron's fraud might well have brought down the
2 grid since the ISO would have been depending on imaginary capacity.

3 **Q. Do you agree with the ISO's analysis that Paper Trading (Get Shorty)**
4 **reduces reliability?**

5 A. Yes. As shown in Ex. SNO-18, the ISO found that "selling of A/S capacity that is
6 not actually available imposes potential risk to system reliability." Ancillary
7 services capacity, or "A/S capacity," is purchased by the ISO to replace system
8 components that fail, and also to provide flexibility to operate the system. The
9 practice of paper trading is similar to selling an empty fire extinguisher as new.
10 It's not a problem until the fire extinguisher is needed.

11 **Q. In your opinion, did the gaming practice of Paper Trading depart**
12 **significantly from normal behavior in competitive markets that do not**
13 **require continuing regulation or lead to unusual or unexplained outcomes?**

14 A. Yes. As noted above, adulteration and counterfeiting are viewed as serious
15 crimes elsewhere in the economy. Get Shorty has no analog in a traditional
16 competitive market other than commercial fraud.

17 **Q. Did Enron provide additional data on Paper Trading (Get Shorty) that was**
18 **not available to you previously?**

19 A. Yes. On March 1, 2005, Enron finally supplied the working files for its settle
20 database. These had been first requested on August 25, 2004.

21 **Q. Was Dr. Acton's analysis limited to the specific instances of Get Shorty that**
22 **were analyzed by Dr. Hildebrandt for the ISO?**

1 A. Yes, and as a result Dr. Acton's flawed analysis is incomplete.

2 **Q. Have you been able to detect instances of Get Shorty not analyzed by Dr.**
3 **Hildebrandt?**

4 A: Yes. My analysis of Enron's CAPS and settle data bases has revealed numerous
5 additional Get Shorty events beyond those described by Dr. Hildebrandt. In
6 particular, I have detected 178 instances of Get Shorty schemes from 1998
7 through 2000 that were not reported by Dr. Hildebrandt.

8 **Q. What do you mean by "instances?"**

9 A. A Get Shorty instance is a date-hour in which I have detected Enron's practice of
10 scheduling that reflects a Get Shorty scheme, i.e., when Enron has sold ancillary
11 services in the day-ahead market at a particular location, and procured that same
12 amount and type of ancillary services in the associated hour-ahead market. Dr.
13 Hildebrandt used a similar procedure to search for Get Shorty schemes, but
14 searched only for the years 2000 and 2001. I searched both Enron's CAPS
15 databases and Enron's Settle database. The Settle database was received from
16 Enron in March 2005. Of the Get Shorty instances that I found that were not
17 noted by Hildebrandt I found some by examining the CAPS data base that were
18 not apparent from examining the settle data base alone, and some by examining
19 the settle data base that were not apparent from examining the CAPS data base
20 alone.

21 **Q. On how many dates did you detect Enron Get Shorty schemes that were not**
22 **detected by Dr. Hildebrandt?**

1 A. I detected Get Shorty schemes not detected by Dr. Hildebrandt on one day in
2 1998, with one instance on that day; 20 days in 1999 with 97 instances on those
3 days; and 44 days in 2000 with 80 instances on those days. The following table
4 shows the days for which Get Shorty schemes were detected by either Dr.
5 Hildebrandt or by my examination of the CAPS and Settlement data.

PUBLIC DOCUMENT – PROTECTED MATERIALS HAVE BEEN REDACTED

EX. SNO-822
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1

Get Shorty Dates	Detected From CAPS Data?	Detected From Settlement Data?	Detected By Hildebrandt?	Get Shorty Dates	Detected From CAPS Data?	Detected From Settlement Data?	Detected By Hildebrandt?
September 4, 1998	Yes	Yes	No	May 14, 2000	Yes	Yes	Yes
May 25, 1999	Yes	Yes	No	May 15, 2000	Yes	Yes	Yes
June 9, 1999	Yes	Yes	No	May 16, 2000	Yes	Yes	Yes
June 12, 1999	Yes	Yes	No	May 17, 2000	Yes	Yes	Yes
July 5, 1999	Yes	Yes	No	May 18, 2000	Yes	Yes	Yes
July 7, 1999	Yes	Yes	No	May 19, 2000	Yes	Yes	Yes
July 8, 1999	Yes	Yes	No	May 20, 2000	Yes	Yes	Yes
August 10, 1999	Yes	Yes	No	May 21, 2000	Yes	Yes	Yes
September 15, 1999	Yes	Yes	No	May 24, 2000	No	No	Yes
September 19, 1999	Yes	Yes	No	May 25, 2000	No	No	Yes
September 21, 1999	Yes	Yes	No	May 30, 2000	Yes	Yes	Yes
October 31, 1999	Yes	Yes	No	June 12, 2000	No	No	Yes
November 11, 1999	Yes	No	No	June 14, 2000	Yes	Yes	Yes
November 17, 1999	Yes	Yes	No	June 15, 2000	Yes	Yes	Yes
December 26, 1999	Yes	Yes	No	June 20, 2000	No	No	Yes
December 29, 1999	Yes	Yes	No	June 22, 2000	Yes	Yes	Yes
January 1, 2000	Yes	Yes	Yes	June 23, 2000	Yes	Yes	Yes
January 2, 2000	Yes	Yes	Yes	June 26, 2000	Yes	Yes	Yes
January 7, 2000	Yes	Yes	Yes	June 27, 2000	Yes	Yes	Yes
January 14, 2000	Yes	Yes	No	June 28, 2000	Yes	Yes	Yes
January 25, 2000	Yes	Yes	Yes	June 29, 2000	Yes	Yes	Yes
January 27, 2000	Yes	Yes	Yes	June 30, 2000	Yes	Yes	Yes
January 28, 2000	Yes	Yes	Yes	July 20, 2000	Yes	Yes	Yes
February 28, 2000	Yes	No	Yes	July 21, 2000	Yes	Yes	Yes
February 29, 2000	Yes	Yes	No	July 23, 2000	No	No	Yes
March 2, 2000	Yes	No	Yes	July 24, 2000	Yes	Yes	Yes
March 6, 2000	Yes	Yes	Yes	July 25, 2000	Yes	Yes	Yes
March 7, 2000	Yes	Yes	Yes	July 26, 2000	Yes	No	Yes
March 8, 2000	Yes	No	Yes	July 27, 2000	Yes	Yes	Yes
March 9, 2000	Yes	Yes	Yes	July 28, 2000	Yes	Yes	Yes
March 10, 2000	Yes	Yes	Yes	July 31, 2000	Yes	Yes	Yes
March 11, 2000	No	Yes	No	August 1, 2000	Yes	Yes	Yes
March 16, 2000	Yes	No	Yes	August 2, 2000	Yes	Yes	Yes
March 20, 2000	Yes	Yes	Yes	August 3, 2000	Yes	Yes	Yes
March 21, 2000	Yes	No	Yes	August 4, 2000	Yes	Yes	Yes
March 23, 2000	Yes	Yes	Yes	August 8, 2000	Yes	Yes	Yes
March 24, 2000	Yes	No	Yes	August 9, 2000	Yes	No	Yes
March 27, 2000	Yes	Yes	Yes	August 10, 2000	Yes	Yes	Yes
March 29, 2000	Yes	No	Yes	August 11, 2000	Yes	Yes	Yes
April 2, 2000	Yes	Yes	Yes	August 14, 2000	Yes	Yes	Yes
April 3, 2000	Yes	Yes	Yes	August 15, 2000	No	Yes	Yes
April 4, 2000	Yes	Yes	Yes	August 16, 2000	No	Yes	Yes
April 5, 2000	Yes	Yes	Yes	August 17, 2000	No	Yes	Yes
April 6, 2000	No	No	Yes	August 18, 2000	No	Yes	Yes
April 7, 2000	Yes	Yes	Yes	August 21, 2000	No	Yes	No
April 8, 2000	No	No	Yes	August 22, 2000	No	Yes	Yes
April 10, 2000	Yes	Yes	Yes	August 23, 2000	No	Yes	Yes
April 12, 2000	Yes	Yes	Yes	August 24, 2000	No	Yes	Yes
April 13, 2000	Yes	Yes	Yes	August 25, 2000	No	Yes	Yes
April 14, 2000	Yes	Yes	Yes	September 4, 2000	No	No	Yes
April 17, 2000	Yes	Yes	Yes	September 7, 2000	Yes	Yes	Yes
April 18, 2000	Yes	Yes	Yes	September 14, 2000	No	No	Yes
April 19, 2000	Yes	Yes	Yes	September 16, 2000	Yes	No	Yes
April 21, 2000	Yes	Yes	Yes	September 18, 2000	No	No	Yes
April 27, 2000	Yes	Yes	Yes	September 19, 2000	No	No	Yes
May 1, 2000	Yes	Yes	Yes	September 28, 2000	Yes	Yes	Yes
May 3, 2000	Yes	Yes	Yes	October 6, 2000	Yes	Yes	No
May 10, 2000	Yes	Yes	Yes	October 11, 2000	Yes	Yes	No
May 11, 2000	Yes	No	Yes	November 8, 2000	Yes	No	Yes
May 12, 2000	Yes	Yes	Yes	November 16, 2000	Yes	No	Yes
May 13, 2000	Yes	Yes	Yes	December 13, 2000	Yes	No	Yes

2

1
2 **Q. Can you provide a few other glaring example of evidence relating to the**
3 **gaming practice of Get Shorty that Dr. Acton overlooked in his testimony?**

4 **A. Yes. For example, materials available from Enron's own files include:**

- 5 • Original Stephen Hall memo which includes a detailed description
6 summarizing and explaining trading strategies Enron traders used,
7 including Get Shorty. (Ex. SNO-62)
- 8 • Yoder/Hall memo which describes specific trading strategies used by
9 Enron that were prohibited by the ISO's tariff, including Get Shorty. In
10 the discussion of Get Shorty, Yoder/Hall state, "This strategy might be
11 characterized as 'paper trading,' because the seller does not actually have
12 the ancillary services to sell. FERC recently denied Morgan Stanley's
13 request to paper trade on the New York ISO". (Ex. SNO-64)
- 14 • Memo from Sanders to Fergus & Frizzell regarding Status Report on
15 Further Investigation and Analysis of EPMI Trading Strategies including
16 Get Shorty. (Ex. SNO-71)
- 17 • Emails regarding Get Shorty from Tim Belden congratulating staff
18 "making so much money on shorting ancillary service." (Ex. SNO-121)
- 19 • Email from Tim Belden talking about Get Shorty saying he does not want
20 to get caught with the "smoking gun."

From: Tim Belden/HOU/ECT
Sent: Monday, August 28, 2000 12:38 PM
To: Greg Wolfe/HOU/ECT; Chris H Foster/HOU/ECT
Cc: John M Forney/HOU/ECT; Jeff Richter/HOU/ECT
Subject: Get Shorty Suspended

It has come to my attention that we failed to zero out a "Get Shorty" schedule on Friday. Fortunately, the real time desk was able to fill it. Kim Ward tried to zero it out and put in blanks rather than zeros which doesn't work. This highlights the need to clearly document exactly what is supposed to be done to implement these schedules. For several months I have asked for a written procedure on ancillary service schedules. Nobody has listened to me and mistakes keep happening. Such a mistake occurred in June and is now requiring a \$900k prior month adjustment. On top of that, the California Attorney General is in search of a smoking gun and is looking to find someone who is "gaming" the market. I don't want to provide them with any fuel for their fire.

I AM TEMPORARILY SUSPENDING ALL GET SHORTY ANCILLARY SERVICE ACTIVITY. When I see a written procedure that will be fail proof, and an airtight log that assigns accountability I will be happy to reinstate. The procedure needs to be thorough and thoughtful. The test will be whether someone who knows almost nothing about ISO scheduling can implement the procedure. This is long overdue. Chris or Greg, please let me know how you plan to proceed.

(Ex. SNO-122)

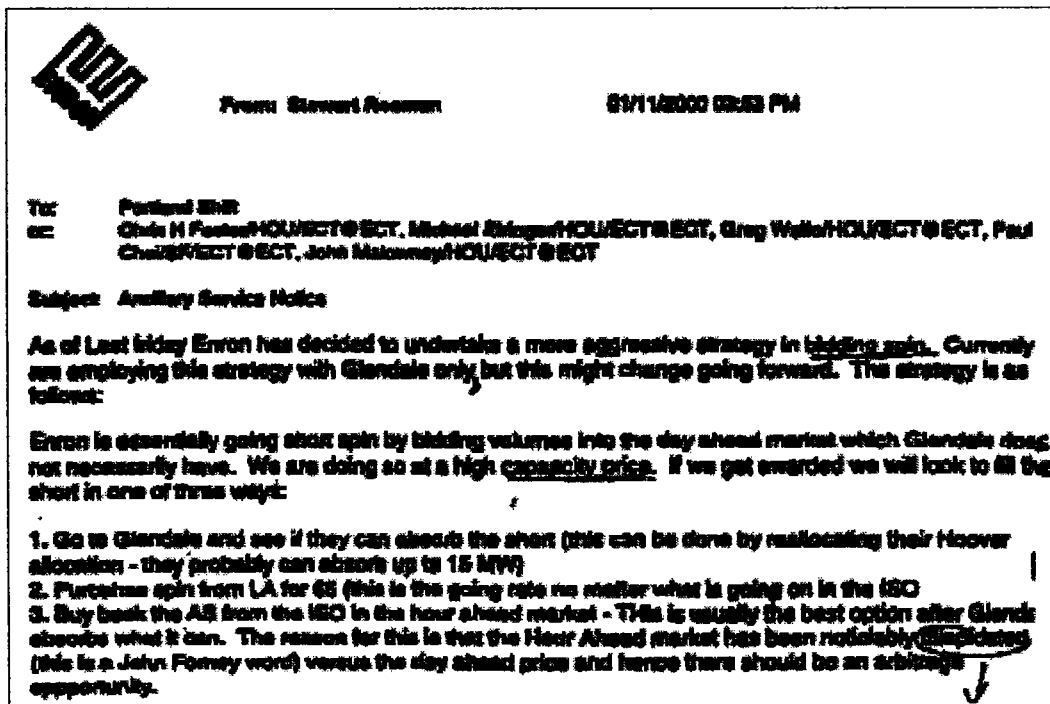
- In Mary Hain's Commodity Futures Trading Commission Deposition (Ex. SNO-760, pp.4-5) on May 2, 2002, she describes the Get Shorty scheme and indicates that Enron made \$5 million dollars from Get Shorty.
- Mary Hain's FERC Deposition (Ex. SNO-35, pp.178-179). Mary Hain discusses Get Shorty and 5 million dollars in earnings.
- The August 2000 summary of profits (Ex. SNO-761) show a pattern that reflects the Get Shorty scheme: Enron would sell in the Day Ahead market and purchase in the Hour Ahead market.
- Mary Hain's notes (Ex. SNO-763) from Enron meetings she participated in contain extensive discussion of the Get Shorty scheme.
- Instructions for Get Shorty including procedures on what the role of the service desks should be, which Enron superiors to get approval from, and how to zero out schedules so as to avoid the risk of nonperformance. (Ex. SNO-802)
- Presentation on Get Shorty by Stewart Rosman which exhorts traders to execute short trades and gives specific directions on how to approach and profit from paper trades. (Ex. SNO-803)
- Deposition of Craig Dean discloses Get Shorty was named after Stewart Rosman. (Ex. SNO-758, p.8)

Q. Dr. Acton argues that Get Shorty schemes with INTERCHG_ID codes referencing non-Enron counterparties actually had capacity backing the initial Day Ahead sale. Should his statement be trusted?

A. No. As Dr. Acton probably knows, Enron's treatment of capacity was somewhat subjective. Ex. SNO-773 is a memorandum written by El Paso Electric questioning whether Enron was respecting EPE's capacity limitations. Ex. SNO-199 contains the transcript of a conversation where an Enron trader is ordering El Paso staff to take steps that are clearly inconsistent with prudent utility practice.

1 Q. Is there any evidence that Enron "went short" with other services customers
2 which were identified in FERC's show cause order as potential partnership
3 entities?

4 A. Yes. One January 2000 email from Stewart Rosman to the Portland shift
5 describes the policy for going short with Glendale:
6



7
8 (Ex. SNO-902)

9 7. Double Selling

10 Q. What arguments does Dr. Acton offer concerning double selling?

11 A. Dr. Acton did not even analyze this scheme. Accordingly, there is no Enron
12 defense to even rebut.

8. Selling Non-Firm as Firm

Q. What comments does Dr. Acton have on the practice of Selling Non-Firm as Firm?

A. Dr. Acton simply assumes the problem away with the sentence “In the case of Enron supplying imports from a variety of out-of-state sources, the company achieves a high degree of reliability of supply through diversification. In effect, Enron self-insures the reliability of these imports.” (Ex. ENR-42, p.66)

Q. Is this a credible assumption?

A. No. The theory that there was more energy in California because Enron misstated the firmness of its supplies is preposterous and ignores the real problem. The California ISO and other control areas were encouraged to believe that reserves existed that actually did not. The cost to the system if the reserves had been needed would have been enormous – the lights might simply have gone out across the entire West Coast.

Q. Doesn’t the fact that Enron was broadly active in western markets allow it to “self-insure”?

A. This is an interesting concept and one that has never been seriously entertained in the industry. Reliability planning simply doesn’t encompass the possibility that reserves aren’t needed if the scale of operations is sufficiently large. The level of reserves is determined based upon the resources available in the system. The obligation to provide adequate reserves applies across the board to utilities and

1 marketers of all sizes (Ex. SNO-886 & Ex. SNO-888) and Enron should not be
2 allowed to create an exception to this universal rule for itself.

3 **Q. In your opinion, did the gaming practice of Selling Non-Firm as Firm pose**
4 **detriments to efficiency or consumers?**

5 A. Clearly, yes. Selling Non-Firm as Firm overstates the supply of firm energy. It
6 provides a false signal as to the resources available to system operators to deal
7 with system emergencies. If a system emergency had occurred, Enron's
8 fraudulent claim would have put the system at risk. Firm energy entails a firm
9 commitment to deliver. Non-firm energy does not. If the California ISO (or any
10 other of Enron's victims) was depending on Enron's supply to serve consumers, a
11 decision not to supply on the part of Enron's non-firm source would put that
12 service at risk. When the system is not facing a genuine crisis, Enron was able to
13 replace non-firm supplies with purchases in real time. If a true emergency had
14 occurred, however, Enron would not have been able to cover the shortfall and
15 would have had to "lean on the system."

16 **Q. In your opinion, did the gaming practice of Selling Non-Firm as Firm depart**
17 **significantly from normal behavior in competitive markets that do not**
18 **require continuing regulation or lead to unusual or unexplained outcomes?**

19 A. Yes. As Enron itself has recognized, firm energy has a "[h]igher value" than non-
20 firm energy. (Ex. SNO-895) In normal competitive markets, this would simply
21 be regarded as commercial fraud since Enron was selling a product that it did not
22 own. When a sale is consummated, the purchaser has a right to expect delivery.

1 If the delivery fails because the supplier falsely represented that it had purchased
2 the product promised, this is a criminal matter.

3 **Q. Does Dr. Acton's direct testimony on gaming ignore the economic**
4 **consequences resulting from Enron's exploitation of asymmetric information**
5 **in the execution of various games, such as selling Non-Firm as Firm?**

6 A. Yes. As the testimony of FERC Staff's witness Dr. Boner demonstrates,

7 asymmetric information is a powerful tool for executing games
8 in power markets. It causes detriment in terms of reduction of
9 consumer surplus, and possibly in total efficiency of the market.
10 Certainly, it undermines the institutions that were created to
11 address what would, in economist's terms, be an ordinary market
12 failure based upon the inherent structure of a market. All of those
13 are negatives from a competitive point of view.

14
15 (Ex. SNO-900).

16 **Q. What practices did Dr. Boner find "impeded competition and acted to reduce**
17 **economic efficiency in the California energy market?**

18 A. Dr. Boner testified that both Selling Non-Firm as Firm and Paper Trading
19 impeded competition and reduced economic efficiency in the California Energy
20 market. (Ex. S-57).

21 **Q. What level of profits did Dr. Acton acknowledge Enron received in**
22 **connection with the gaming practice of Selling Non-Firm as Firm?**

23 A. None. Since the ISO did not present data regarding Selling Non-Firm as Firm in
24 its June 2003 report, Dr. Acton did no further analysis of this scheme. (Ex. ENR-
25 42, pp. 65-66). Dr. Acton's failure to acknowledge that Enron made any unjust
26 profits from this scheme is incredible. Selling Non-Firm as Firm was a practice

1 endemic to Enron's power marketing efforts. It was a facet of Death Stars, for
2 instance, with circular schedules created out of a mixture of firm and non-firm
3 segments.

4 **Q. Can you provide a few other glaring examples of evidence relating to the**
5 **gaming practice of Selling Non-Firm as Firm that Dr. Acton overlooked in**
6 **his testimony?**

7 **A. Yes. For example, materials that were available in Enron's files that were not**
8 **cited include:**

- 9 • Original Stephen Hall memo which includes a detailed description
10 summarizing and explaining trading strategies Enron traders used,
11 including Selling Non-Firm as Firm. (Ex. SNO-62)
- 12 • Yoder/Hall memo which describes specific trading strategies that Enron's
13 traders applied in the California wholesale energy markets. Specifically, in
14 regards to selling non-firm energy as firm energy, the memo states the
15 result of this scheme is "that the ISO pays EPMI for ancillary services that
16 Enron claims it is providing, but does not in fact provide. . . . The traders
17 claim that 'everybody does this,' especially for imports from the Pacific
18 Northwest into California." (Ex. SNO-64)
- 19 • Memo from Sanders to Fergus & Frizzell regarding Status Report on
20 Further Investigation and Analysis of EPMI Trading Strategies. This
21 document summarizes different gaming schemes, including Selling Non-
22 Firm as Firm. (Ex. SNO-71)
- 23 • Jeff Richter Plea Agreement in which he acknowledges his intent as an
24 Enron trader to defraud ratepayers by intentionally filing energy schedules
25 and bids that misrepresented the amount and geographic location of loads
26 which they intended to serve, as well as submitting "false information to
27 the ISO in the electricity and ancillary service markets." (Ex. SNO-73)
- 28 • Tim Belden's Risk Management materials lists reserves for a number of
29 different Schemes, including Selling Non-Firm as Firm. (Ex. SNO-97)
- 30 • Instructions for Enron traders which delineates whether an import or
31 export should be firm or non-firm so as to avoid any California charges.
32 (Ex. SNO-124)

- Inc Sheets. For example, September 18, 2000, shows an instance of Selling Non-Firm as Firm. (Ex. SNO-732 & SNO-740)
- Enron's CAPS database shows schedules in which Enron identifies Selling Non-Firm as firm. (Ex. SNO-755)
- CAPS Empower query that lists "NFRM" shows Enron creating loops where non-firm was fictitiously turned into firm. (Ex. SNO-755)

Partnerships (EL03-180)

Q. With respect Dr. Acton's direct testimony in Docket EL03-180 regarding Enron's partnerships, please identify the ten alleged partnership entities that were named in the Commission's show cause order and discussed in Dr. Acton's testimony.

A. Dr. Acton's direct testimony addresses Enron's relationships with the following ten entities: (1) City of Glendale, CA; (2) City of Redding, CA; (3) Colorado River Commission ("CRC"); (4) Las Vegas Cogeneration; (5) Modesto Irrigation District; (6) Montana Power Company; (7) Northern California Power Agency ("NCPA"); (8) Powerex; (9) Public Service Company of New Mexico ("PNM"); and (10) Valley Electric Association.

Q. What does Dr. Acton conclude in his EL03-180 testimony regarding Enron's relationships with these ten entities?

A. Dr. Acton's conclusions are found on page 4 of his testimony, where he states:

1. With regard to nine of the ten parties, I am not aware of any evidence that Enron had an "alliance" or partnership agreement that gave Enron substantial control or decision-making authority over the assets of its counterparty.

2. [

1
2
3]
4 3. In all ten cases, I am not aware of any evidence that Enron's
5 agreements resulted in the parties' working in concert to engage in
6 Gaming Practices or anomalous behavior.

7 4. Enron's arrangements with some of the parties generally
8 benefited consumers in California markets by increasing the amount of
9 imports sold into the ISO control area, which helped to alleviate
10 upward pressure on market prices.

11 **Q. Did Dr. Acton look very hard for evidence pertinent to Enron's relationships**
12 **with these ten entities?**

13 A. No. Dr. Acton purports that he is not aware of or has not seen evidence that
14 Enron had partnership agreements with nine of the ten entities or that Enron
15 worked in concert with any of the ten entities to engage in gaming or anomalous
16 market behavior. (Ex. ENR-1 at 4:5-8 & 4:14-16). But, Dr. Acton did not look
17 very hard. He ignored large volumes of evidence and simply accepted, at face
18 value, contract language or claims by Enron and the ten entities that partnerships
19 did not exist, even though – as Dr. Acton repeatedly admits in his testimony – he
20 lacked knowledge regarding whether or not these denials were accurate.⁶ Dr.
21 Acton's opinions were based on his review of the explicit terms of contracts
22 between Enron and the alleged partnership entities, and not on any in depth
23 analysis of the actual conduct of Enron and these alleged partnership entities, as

⁶ Ex. ENR-1 at 8:9-11, 12:6-9, 15:5-7, 17:24-26, 21:11-13, 24:14-16, 26:21-23, 30:9-11, 33:14-16, and 37:10-12.

1 he admits.⁷ In fact, Dr. Acton concedes that he does not know whether the
2 parties' conduct diverged in practice from the explicit terms of the contracts.⁸

3 **Q. Is there good cause for the Presiding Administrative Law Judge or the**
4 **Commission to find that Enron formed a business alliance or partnership**
5 **even if the language of an Enron contract disclaimed the existence of such a**
6 **relationship?**

7 **A.** Yes. The Presiding Administrative Law Judge and the Commission are well
8 aware from the record in Docket EL02-113 that words Enron places in contracts
9 are designed to mask and, in reality, do not match up with, Enron's actual
10 conduct. For example, Enron's Power Consulting Agreement with El Paso
11 Electric Company stated, on its face, that:

12 At all times during the term of this Agreement EPE shall retain
13 ownership and control of, and operational responsibility with respect to,
14 all of its tangible and intangible assets, including generation,
15 transmission, and distribution assets, power purchase and sale
16 contracts, and fuel and transportation agreements.

17 (Ex. S-68 at 1)

18 In practice, however, Enron actually controlled El Paso Electric's generation
19 resources and made sales decisions for El Paso Electric, as the Presiding
20 Administrative Law Judge and the Commission have already determined. (*Enron*
21 *Power Marketing, Inc., et al.*, 104 FERC ¶ 63,010 (2003), *affirmed in relevant*
22 *part, El Paso Electric Co., et al.*, 108 FERC ¶ 61,071 (2004)). Contrary to Dr.
23 Acton's conclusions, documents obtained from Enron's own files acknowledge

⁷ Ex. ENR-1 at 3:15-24, 5:3-28, and 6:26-33.

⁸ Ex. ENR-1 at 11:9-16, 19:19-24, and 25:29-33.

1 that Enron did not simply engage in routine sales and purchase transactions that
2 were fully reported by Enron to FERC. To the contrary, Enron, by its own
3 admission, engaged in many joint ventures and equity sharing arrangements that
4 were never reported to FERC. Take, for example, this excerpt from notes for an
5 Enron West Power Business Review Meeting: “the combination of El Paso
6 Electric, Las Vegas Cogen, Valley Electric, and Glendale joint venture provide us
7 with a useful mix of loads and resources in the southwest.” (Ex. S-65, Schedule 3,
8 p.3) Other Enron documents also explicitly acknowledge that Enron had an
9 equity sharing relationship with Valley Electric, Glendale, CRC, Las Vegas
10 Cogen, and Redding. (Ex. SNO-881; Ex. S-66, Schedule 3, at pp. 3-4; Ex. S-65,
11 Schedule 3 at p. 20)

12 **Q. Have Enron’s own attorneys recognized that a partnership may exist, in**
13 **practice, even if the words of an Enron contract specifically provide that the**
14 **business arrangement is not intended to be a partnership?**

15 **A.** Yes. On April 20th, 2005, Enron finally provided Snohomish with a copy of a
16 memorandum, entitled “Power Marketing Alliances,” which had been requested
17 by Snohomish many months earlier from Enron’s CDMS index. (Ex. SNO-898)
18 The memorandum, which was written by one of Enron’s attorneys at the law firm
19 of LeBoeuf, Lamb, Greene & MacRae, L.L.P., admits that if Enron markets
20 another entity’s generation, there is a risk the arrangement could be deemed a
21 partnership “regardless of whether the governing agreement specifically provides
22 that the arrangement is not intended to create a partnership.” (Ex. SNO-898, at

1 p.1,) According to the memorandum, a partnership may be deemed to exist
2 where, for example, Enron possesses the power to bind the counterparty to power
3 sales contracts with third parties or Enron's compensation is tied to net profits.
4 (Ex. SNO-898, at p.1)

5 **Q. Has Dr. Acton acknowledged that Enron was compensated by any of the**
6 **identified partnership entities based on profits received from sales to third-**
7 **parties?**

8 A. Yes, in part. Dr. Acton's testimony [
9] (Ex.
10 ENR-1 at pp.15, 18, 27, 37)

11 **Q. Does evidence exist that Enron had profit sharing arrangements with some of**
12 **the other alleged partnership entities that Dr. Acton failed to reveal in his**
13 **testimony?**

14 A. Yes. For example, there is evidence that Enron had profit sharing arrangements
15 with Glendale, Redding, and PNM. (Ex. S-66, Schedule 3, at pp. 3-4; Ex. S-65,
16 Schedule 3 at pp. 5, 6, 20; Ex. SNO-76; Ex. SNO-827; Ex. SNO-828; Ex. SNO-
17 75; Ex. SNO-844; Ex. SNO-845 and Ex. SNO-894)

18 **Q. Based on Enron's own records, is there good cause for the Presiding**
19 **Administrative Law Judge or the Commission to find that Dr. Acton's**
20 **estimates of the amount of profits Enron derived from its relationships with**
21 **the alleged partnership entities are inaccurate?**

PUBLIC DOCUMENT – PROTECTED MATERIALS HAVE BEEN REDACTED

A. Yes. Dr. Acton did not review or conduct a diligent search for all records pertinent to Enron's relationships with the alleged partnership entities and he failed to explain why there are discrepancies between dollar amounts referenced in his testimony and dollar amounts contained in Enron's records. For example, Enron's "Service Book December Revenue Statement" includes an "YTD," "Equity Share" amount for "Redding HA" of \$368,630.08, (Ex. S-66, Schedule 3, p. 3) whereas Dr. Acton's testimony claims []. (Ex. ENR-1, p. 13) Enron's "Service Book December Revenue Statement" includes an "YTD," "Equity Share" amount for "Glendale A/S" of \$476,871.65, (Ex. S-66, Schedule 3, at page 3) whereas Dr. Acton's testimony claims a revenue amount of only \$284,102.76 was generated. (Ex. ENR-1, p.10) In addition, Enron's "Services Results July '00 Revenue Statement" includes a "YTD," "A/S", "Equity Share" amount for "CRC" of \$425,121, (Ex. S-65, Schedule 3, p. 20) whereas Dr. Acton's testimony claims a revenue amount of only \$231,000 was generated. (Ex. ENR-1, p. 15) Moreover, Dr. Acton's position that no revenues were generated from a profit-sharing relationship with Redding is belied by the fact that Enron's own records acknowledge Enron "split profits/losses" with Redding and state that this relationship with Redding "has been very profitable." (Ex. S-65, Schedule 3, p. 6).

Q. Is there also good cause for the Commission to find that Dr. Acton's testimony is not credible because he overlooked evidence relating to Enron's use of the identified entities in Enron's gaming schemes?

1 A. Yes. Dr. Acton concluded that he could not find any “agreements” that involved
2 “Gaming Practices or anomalous behavior.” (Ex. ENR-1, p. 2) Dr. Acton chose
3 his words with care in his answer cited above. Although asked about documents
4 he stated that he could not find agreements. The answer he might well have given
5 is that many documents demonstrate gaming and anomalous behavior. Simply
6 because Enron did not explicitly memorialize, in the body of a written agreement,
7 that Enron intended to enter into the agreement to carry out gaming or anomalous
8 market behavior, it does not follow that such gaming and anomalous market
9 behavior never occurred. We now know that Enron used many of the identified
10 partnership entities in Enron’s market manipulation schemes:

11 Glendale: Fat Boy, Thin Man, Get Shorty

12 Redding: Fat Boy, Red Congo, Load Shift

13 CRC: Fat Boy and Thin Man

14 Las Vegas Cogeneration: Generation Withholding

15 Modesto Irrigation District: Ricochet

16 Montana Power Company: Non-firm As Firm

17 NCPA: Load Shift

18 Powerex: Fat Boy, Market Sharing

19 PNM: Ricochet

20 VEA: Fat Boy

21 Q. What documents did Dr. Acton personally review in his investigation of the
22 alleged partnerships?
23
24
25
26
27
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32

1 A. Very few. According to his testimony, only the contracts, correspondence, and
2 records of transactions that Enron filed on September 2, 2003, in response to the
3 Show Cause Order, were examined, along with the September 2, 2003 filings of
4 the ten counterparties. (Ex. ENR-1, p. 5). Dr. Acton states that all of the
5 documents he relied upon in his testimony are listed in Ex. ENR-4. (Ex. ENR-1,
6 p. 5).

7
8 **9. Glendale**

9 **Q. Focusing on the identified entities with whom Enron entered into unreported**
10 **profit or equity sharing relationships, can you please provide a few glaring**
11 **examples of evidence that was missed by Dr. Acton.**

12 A. Certainly. Starting first with Enron's unreported relationship with Glendale, Dr.
13 Acton missed, for example, the following evidence:

- 14 • Ex. SNO-76 Enron Real Time Services Handbook, includes counterparty-
15 specific instructions to educate inexperienced traders on how to carry out
16 Enron's schemes. It even specifies the specific products traded,
17 transmission lines that were used by certain partners to initiate a sequence
18 of gaming opportunities (e.g., with "High RT Prices"), and profit-sharing
19 arrangements . Among the Hour-Ahead products listed for Glendale are
20 the gaming schemes Fat Boy and Thin Man. There is also a statement of
21 the Fat Boy profit-sharing arrangement between Enron and Glendale.
- 22 • Ex. SNO-827 is an email from John Forney to the Portland Shift from
23 February 23rd, 2000. It discusses a standing order from Glendale on
24 purchasing energy and the resultant profit sharing arrangement.
- 25 • Ex. SNO-828 is a John Forney email to the Portland Shift from February
26 17th of 2000. It mentions that there have been decreasing opportunities for
27 profit-sharing transactions with certain members of the Glendale staff, and

looks to get more of them involved: “Their manager wants to do this every time we see fit.

- Ex. SNO-133 is a memo entitled “Scheduling Coordination Services” that was sent by Christian Yoder to his superior, Elizabeth Sager, on July 29, 1999. The second page of Yoder’s memo characterizes the Glendale “deal” as:

A. Glendale

1. Doing Day Ahead and real Time Ancillary Services. No energy bidding.

2. "At risk" for all the above

3. Collecting 25% of Capacity Payment

Collecting 20% of "Profit" on Energy Exercised

- Ex. SNO-840 is an Enron spreadsheet containing details of profit sharing between Enron and Glendale in SP15 in February of 2000.
- Ex. SNO-841 is an Enron spreadsheet containing details of profit sharing between Enron and Glendale in SP15 in March of 2000.
- Ex. SNO-842 is an Enron spreadsheet containing details of profit sharing between Enron and Glendale in SP15 in April of 2000.
- Ex. SNO-843 is an Enron spreadsheet entitled “Comparison of Profit Sharing Arrangement Vs. Supplemental Market Bids,” which gives a detailed example of a profit sharing arrangement between Enron and Glendale on August 26, 1999.

10.Redding

Q. What evidence did Dr. Acton miss regarding Enron’s unreported relationship with Redding?

A. He missed the vast majority of the evidence, including, for example, the following:

- Ex. SNO-76 Enron Real Time Services Handbook, includes counterparty-specific instructions to educate inexperienced traders on how to carry out Enron’s schemes. It even specifies the specific products traded, transmission lines that were used by certain partners to initiate a sequence of gaming opportunities (e.g., with “High RT Prices”), and profit-sharing

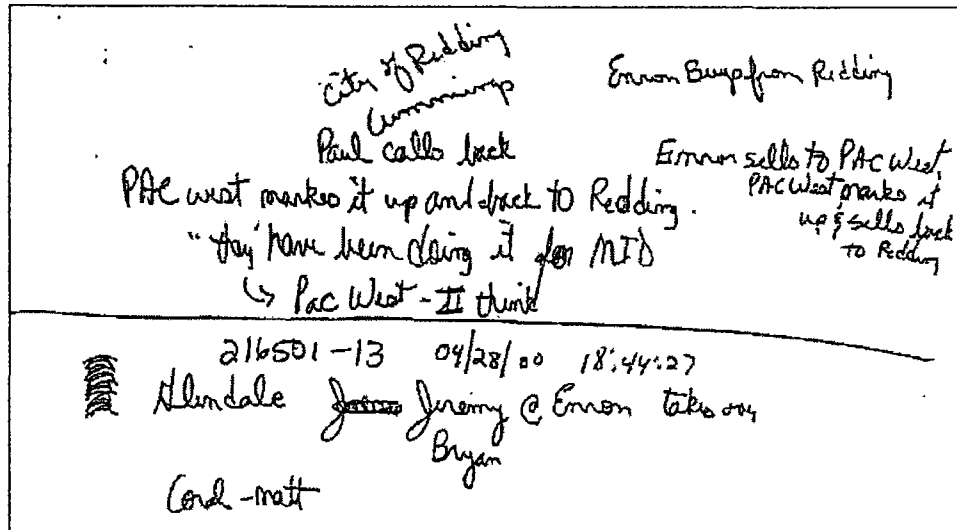
arrangements. It states Fat Boy to be an Hour Ahead product for Redding, as well as mentions a profit-sharing arrangement between Enron and Redding.

- Ex. CP-113,114 contains Enron trader comments from INC Sheets and Enpower regarding Redding. There are many mentions of specific schemes as well as profit sharing arrangements.
- Ex. SNO-102 is a John Forney email to the Portland Shift entitled "Project Red Congo." The opening line sums up the content of the email: "In a new marketing arrangement with Redding, we are flowing a virtual loop to relieve congestion." The email goes on to give the details of this arrangement and emphasizes that Redding is "on board with this strategy as is PacifiCorp."
- Ex. SNO-75 is an outline of an Enron Real Time Staff Meeting. In a section on trading strategies, there is discussion of running a "Boomerang" scheme with Redding as well as profit sharing. Boomerang is another term used by Enron for a type of Death Star.
- Ex. SNO-737 is a document entitled "HOUR AHEAD CONGESTION RELIEF – Project "BIG TUNA"" that was produced by John Forney to instruct traders with very specific details on a congestion relief scheme that involved Redding.
- Ex. SNO-739 is an internal City of Redding memo to its system operators advising of procedures for doing reverse congestion scheduling with Enron and PACW.
- Ex. SNO-731 includes Stephen Hall's handwritten transcripts of Enron trader tapes from the spring and early summer of 2000. These transcripts contain a number of references to Enron's gaming activities involving Redding. Discussion of a Death Star with Redding on page 106 (seen below) mentions that Paul Cummings of Redding will "put together the loop."

Handwritten notes from a transcript, likely related to the "Death Star" project mentioned in the text. The notes are dated 04/28/00 and include the following details:

- Time: 14:03:45 → 14:17:46
- Location: PAC west
- Participants: Funky, City of Redding - Ed, Lyle, Paul Cummings
- Topic: Congestion - how to make money on it
- Project: "project loop" - don't want that pop out.
- Concept: "Death Star" - a loop that will get together the loop.
- Goal: "to sell to them @ market price. they pay Enron then Redding pays them."
- Reference: EC 071234804

And on the following page:



(Ex. SNO-731)

- Ex. SNO-732, including the excerpt below from the June 22, 2000 Inc Sheets that shows a Red Congo transaction by Enron with Redding, which is a type of Death Star.



- Ex. SNO-844 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 as well as Redding parking in NP15 in August of 1999.
- Ex. SNO-845 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 as well as Redding parking in NP15 in September of 1999.
- Ex. SNO-846 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in October of 1999.
- Ex. SNO-847 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in November of 1999.

- Ex. SNO-848 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in December of 1999.
- Ex. SNO-849 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in January of 2000.
- Ex. SNO-850 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in February of 2000.
- Ex. SNO-851 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in March of 2000.
- Ex. SNO-852 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in April of 2000.
- Ex. SNO-853 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in May of 2000.
- Ex. SNO-854 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 on May 10, 2000, with a distinct example of the Red Congo gaming scheme.
- Ex. SNO-855 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in June of 2000.
- Ex. SNO-856 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in July of 2000.
- Ex. SNO-857 This Enron spreadsheet contains details of profit sharing between Enron and Redding in NP15 in August of 2000.
- Ex. SNO-881 is a document containing Enron Service Book with monthly revenue statements on several services customers, including Redding, from August of 1999 through November of 2000 on several services customers, including Redding. It has documentation of equity sharing.
- Ex. SNO-217 is a transcript of an Enron trader phone conversation acknowledging Enron's profit sharing arrangement with Redding:
PERSON 2: You gonna manage their transports, Stewart?
STEWART: We're going to man - we're gonna take their transmission - similar to what we're doing with Modesto and Redding, and do a buy-resell with them, and I think it's going to be tougher with them because they're less competent in terms of scheduling it and all and calculating the cost. And ah, we're going to give 'em 75% of whatever profits are derived from it.
(p.3)
- Ex. SNO-282 is a transcript of a conversation between Enron traders referencing initiation of a profit sharing arrangement with Redding:

1 JOHN FORNEY: So um. Anyway, did he do that Redding thing?
2 [break in recording]

3 BILL: Do the Redding thing?

4 JOHN FORNEY: Yeah. Redding. He was talking to Redding. Redding
5 wanted to profit-share.

6 (p.3-4)

- 7 • Ex. SNO-465 This trader conversation between Jeff Richter of Enron and
8 Marvin of Redding evidences Enron was aware of the consequences of its
9 gaming activity in the middle of the California crisis.

10 JEFF: The ISO is – the ISO is going to be screwed.

11 MARVIN: Oh, yeah, oh yeah.

12 JEFF: I don't know what they're going to do today.

13 MARVIN: Yeah, they were pretty well hosed yesterday and today
14 should just about finish it off.

15 JEFF: Yeah, it should just – are they just callin' people all over the
16 place to get stuff, I mean, they're callin' here.

17 MARVIN: Yeah, Yeah, you know we're runnin for 'em too, but the
18 way I look at it, you know, if we've sold a lot of it out of state and a lot
19 of it off, you know, it's just – they made their bed, they can lie in it.

20 JEFF: That's right man, just pu – push it out. That's why the, I mean,
21 it's what we have to do.

22 MARVIN: Exa – I mean, if, they're the ones that capped it, you knew
23 it was going to get – it's going to happen.

24 JEFF: Yeah, you want to go out of state man.

25 (p.2)

26 **11.Colorado River Commission**

27 **Q. What evidence did Dr. Acton miss regarding Enron's unreported**
28 **relationship with Colorado River Commission?**

29 **A.** Again, he missed the vast majority of the evidence, including , for example, the
30 following evidence:

- 31 • Ex. SNO-76 Enron Real Time Services Handbook, includes counterparty-
32 specific instructions to educate inexperienced traders on how to carry out
33 Enron's schemes. It even specifies the specific products traded,
34 transmission lines that were used by certain partners to initiate a sequence
35 of gaming opportunities (e.g., with "High RT Prices"), and profit-sharing

1 arrangements from this collusion. Among the Hour-Ahead products listed
2 for CRC are the gaming schemes Fat Boy and Thin Man.

- 3 • Ex. SNO-824 These are internal Enron emails to their Portland shift that
4 involve CRC. Mention is made of a profit-sharing arrangement between
5 these two parties. Page two contains a noteworthy line: "CRC has agreed
6 to ask NPC to allow Enron to make schedule changes on their behalf..."
7 This statement contradicts Dr. Acton's conclusion that Enron had no
8 control or decision-making authority whatsoever with respect to CRC
9 transactions.

- 10 • Ex. SNO-826 This is an email from John Forney to the Portland Shift
11 entitled "CRC NEW PROCEDURE" from October 24th of 2000. It
12 discusses the possibility of entering into a profit-sharing agreement with
13 CRC.

- 14 • Ex. SNO-881 This document contains Enron Service Book with monthly
15 revenue statements from August of 1999 through November of 2000 on
16 several services customers, including "Equity Share" with CRC.

- 17 • Ex. SNO-858 This Enron spreadsheet contains details of profit sharing
18 between Enron and CRC in the supplemental market in July of 2000.

- 19 • Ex. SNO-859 This Enron spreadsheet contains details of profit sharing
20 between Enron and CRC in the supplemental market in August of 2000.

- 21 • Ex. SNO-860 This Enron spreadsheet contains details of profit sharing
22 between Enron and CRC in the supplemental market in November of
23 2000.

- 24 • Ex. SNO-861 This Enron spreadsheet contains details of profit sharing
25 between Enron and CRC in the supplemental market in December of
26 2000.

- 27 • Ex. SNO-862 This Enron internal email from Bill Williams to the Portland
28 Shift explains how to enter a profit sharing arrangement with a services
29 customer into CAPS. CRC is given as an example of such a services
30 customer.

- 31 • Ex. SNO-863 This Enron Inc Sheet contains details of transactions with
32 CRC. The image below references a profit share arrangement with CRC.

- Ex. SNO-864 This Enron Inc Sheet contains details of transactions with CRC. The image below references profit share arrangement with CRC.

- Ex. SNO-882 This Enron spreadsheet shows their December deals with Modesto in two forms: original December 2000 deals and “Modesto Adjusted Amounts (What’s in Enpower).” This indicates there may have been intentional discrepancies between the actual deals and what was entered by Enron into Enpower, apparently in the calculation of a profit sharing transaction.
- Ex. SNO-883 This Enron spreadsheet details Enron’s annuity accounting for transactions with Modesto in April and May of 2001.
- Ex. SNO-884 This Enron spreadsheet shows Modesto’s Loss Return for a transaction from March of 2001.

Q. [

]

A. [

] The Modesto spreadsheet, set

forth in Ex. SNO-882, appears to describe a relationship with a significantly more complex set of computations:

Modesto Adjusted Amounts (What's in Enpower)							
NP				COB S/N			
Original Deal: 473338				Original Deal: 473337			
MWH/Day		Price		MWH/Day		Price	
						Net \$ To Modesto	
6-Dec	Wed	400	340	400	440	\$ 40,000	
7-Dec	Thur	400	340	400	440	\$ 40,000	
8-Dec	Fri	400	340	400	440	\$ 40,000	
9-Dec	Sat	400	340	400	440	\$ 40,000	
10-Dec	Sun						
11-Dec	Mon					\$ Zeroed	
12-Dec	Tue	400	340	400	440	\$ 40,000	
13-Dec	Wed					\$ Zeroed	
14-Dec	Thur					\$ Zeroed	
15-Dec	Fri					\$ Zeroed	
16-Dec	Sat					\$ Zeroed	
17-Dec	Sun						
18-Dec	Mon					\$ Zeroed	
19-Dec	Tue	400	340	400	440	\$ 40,000	
20-Dec	Wed	400	340	400	440	\$ 40,000	
21-Dec	Thur	400	340	400	440	\$ 40,000	
22-Dec	Fri	400	340	400	440	\$ 40,000	
23-Dec	Sat	400	340	400	440	\$ 40,000	

While we have been unable to find narrative materials to describe the December transactions, it appears that Modesto was used to facilitate facilitating a transaction in Northern California for a net share. If so, this would be a profit sharing transaction.

Q. How credible are Dr. Acton's conclusions about Modesto?

A. Not very. Since there appear, to be exceptions to Dr. Acton's exception, his review of Enron's materials appears to have been unduly superficial. His statement that he found no evidence of anomalous behavior is also contradicted by the "Loop" document. (Ex. SNO-801).

13. Northern California Power Agency

Q. What evidence did Dr. Acton miss regarding Enron's unreported relationship with NCPA?

A. Once again, he missed the vast majority of the evidence, including, for example, the following :

- Ex. SNO-142 This internal Enron email from Geir Solberg to the Portland Shift discussing the re-initiation of a gaming scheme with NCPA. It refers to their previous profit-sharing arrangement and states that this time around would be a flat payment to NCPA. It goes on to give the details of a circular scheduling arrangement with NCPA.
- Ex. SNO-832 This document is a May 15th, 2002 Transmission Management Proposal with NCPA with handwritten notes. The proposal includes a profit-sharing arrangement. The second page consists solely of handwritten notes with a diagram entitled “NCPA Cong Catcher.” The flow diagram and notes give details of a Death Star.
- Ex. SNO-732 On August 28, 2000, Enron ran an ex-post Load Shift from HE 1 through HE 11. Enron’s real time traders purchased power (actually ran a deficit) in ZP and “sold” the power to NCPA. It also states that the transaction was a “50/50” profit split, as shown in the Inc Sheet below:

NAISO											
HE	TIME	TYPE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY
1	1	PDT	1	3.37165	Cal Imb (NP)	240.1172					2486
2	2	PDT	1	146.6483	Cal Imb (NP)	146.6483					0
3	3	PDT	1	100	Cal Imb (NP)	100					0
4	4	PDT	1	131.7116	Cal Imb (NP)	131.7116					0
5	5	PDT	1	149	Cal Imb (NP)	149					0
6	6	PDT	1	136.88	Cal Imb (NP)	136.88					0
7	7	PDT	1	249.17	Cal Imb (NP)	242.73					61
8	8	PDT	1	241.75	Cal Imb (NP)	248.99					69
9	9	PDT	1	116.51	Cal Imb (NP)	248.92					1258
10	10	PDT	1	104.33	Cal Imb (NP)	250					1384
11	11	PDT	1	133.68	Cal Imb (NP)	133.68					0
TOTAL											\$ 121,897

- Ex. SNO-910 Enron’s accounting for the NCPA Load Shift itemizes profits for June, July, and August:

HE	TIME	TYPE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY	PRICE	QTY
28-Aug											
1	PDT	1	ZP to NP	Cal Imb (ZP)	21	21	3.37165	Cal Imb (NP)	240.1172		2486
2	PDT	1	ZP to NP	Cal Imb (ZP)	21	21	146.6483	Cal Imb (NP)	146.6483		0
3	PDT	1	ZP to NP	Cal Imb (ZP)	21	21	100	Cal Imb (NP)	100		0
4	PDT	1	ZP to NP	Cal Imb (ZP)	21	21	131.7116	Cal Imb (NP)	131.7116		0
5	PDT	1	ZP to NP	Cal Imb (ZP)	21	21	149	Cal Imb (NP)	149		0
6	PDT	1	ZP to NP	Cal Imb (ZP)	21	21	136.88	Cal Imb (NP)	136.88		0
7	PDT	1	ZP to NP	Cal Imb (ZP)	19	19	249.17	Cal Imb (NP)	242.73		61
8	PDT	1	ZP to NP	Cal Imb (ZP)	19	19	241.75	Cal Imb (NP)	248.99		69
9	PDT	1	ZP to NP	Cal Imb (ZP)	19	19	116.51	Cal Imb (NP)	248.92		1258
10	PDT	1	ZP to NP	Cal Imb (ZP)	19	19	104.33	Cal Imb (NP)	250		1384
11	PDT	1	ZP to NP	Cal Imb (ZP)	19	19	133.68	Cal Imb (NP)	133.68		0
TOTAL											\$ 121,897

- Ex. SNO-909 Enron’s summary of its relationship with NCPA including a “shared savings” arrangement:

1 How does it work?

2 TEAMWORK. We are all on the same team. The shared savings
3 arrangement insures that the incentives for Enron are in line with the
4 incentives of NCPA. As service providers to NCPA's members - both
5 NCPA and Enron's existence depends upon providing high levels of
6 service at the lowest possible cost to maintain customer satisfaction.

- 7 • Ex. SNO-874 This Enron spreadsheet contains details of profit sharing
8 between Enron and NCPA in NP15 in October of 1999.

9 **14. Las Vegas Cogeneration**

10 **Q. Did Dr. Acton also miss important evidence relating to Enron's relationship**
11 **with Las Vegas Cogen ?**

12 **A. Yes. He missed, for example, the following:**

- 13 • Ex. SNO-525 This is a transcript of a trader phone conversation between
14 Enron and Las Vegas Cogen. Enron convinces Las Vegas Cogen to falsify
15 a reason for shutting down a power plant. They agree to act as if it is for
16 maintenance reasons, and to keep it "a word of mouth kind of thing."
- 17 • Ex. SNO-133 Enron's Temporary Data Sheet – August 2000 indicates a
18 verbal contract with Las Vegas Cogen to receive a 20% net profit with up
19 to 50 megawatts scheduled firm with non-firm transmission.
- 20 • Ex. SNO-865 This document is a 2000 Performance Review for Enron
21 trader Les Rawson. Among the achievements listed are "daily
22 management of four generation profit sharing transactions," one of which
23 was with Las Vegas Cogen.
- 24 • Ex. SNO-881 This document contains Enron Service Book with monthly
25 revenue statements on several services customers, including Las Vegas
26 Cogen, from August of 1999 through November of 2000. It has
27 documentation of equity sharing.
- 28 • Ex. SNO-913, slide 5, shows LV Cogen under the heading "Generation
29 Management," and indicates Enron is an "economic decisionmaker" for
30 LV Cogen:

Services

◆ Scheduling - Fee for California Schedules

- In zone generators.
- Out of California utilities (Puget).
- More educated customers.

◆ Ancillary Services - Equity Percent of Net Value

- SCL, EWEB, Chelan, Grant, EPE, Generators, CSU
- Requires real time reactivity.
- Some combined with ENA trans. ? Position on constrained paths (customer has generation, ENA has transmission).
- Buyback strategy.

◆ Generation Management

- (Willamette, Valley, Saguaro, LV Cogen).
- Economic decisionmaker.
- 5% - 30% equity value.



-5-

- Ex. SNO-323 This transcript of a conversation between Enron traders refers to Enron's profit sharing arrangement with Las Vegas Cogen:

JOHN FORNEY: [laughs] But um, anyway, ah, what - what they're going to do is they're ah - the guy responsible for making these sales is going to call me at 5:30 in the morning and, um, he's going to call Nevada Power, just like, ah, LV, and ah, see if they want, you know, to buy the energy. Probably they want, and so we need to have an idea of what the market's going to bear and your know, guide'em just like LV recommends, you know, PX in the morning Sunday, and Ex post in the afternoon or whatever they're going to do.

MIKE: OK.

JOHN FORNEY: You know, and just handle that and make sure it goes well for the first day, and it's probably be based on the same formula, 50/50 up-side plus the generating cost plus O & M and ah, you know, transmission charges on, ah, Nevada Power.

(p.3)

- Ex SNO-890 Demonstrates that Enron performed an asset management service for Las Vegas Cogen:

Enron North America Network Services Existing Network/Services/Platform Customers					
Existing Customer /Type	Load/Res Bal Asset Mgmt	CA Access/ Settlement	Transaction Management	Incremental Commodity	Total Value
El Paso	\$15,000/Mo	\$ 50/Mwh	Yes	\$??	\$1,000,000
Valley	X	X	?	Yes	
CFE		\$500,000		Yes	\$500,000
Glendale		X			\$250,000
LVCogen	X	X			
Powerex		X			
Plains		X			
Puget		X			
Tosco		X		X	

1

2

3 **Q. What was Dr. Acton's conclusion concerning Las Vegas Cogeneration?**4 **A. Dr. Acton concludes:**

5 Many of these documents were ordinary confirmation sheets for what
6 appear to be traditional sales and purchases of energy . I am not aware
7 of any agreements between Enron and LVC that gave Enron substantial
8 control or decision-making authority over the assets of LVC, or
9 allowed them to work in concert to engage in Gaming Practices or
10 anomalous behavior.

11 (Ex. ENR-1, p. 17)

12

13 **Q. Was Dr. Acton correct?**

14 **A. Clearly not. We not only know that Enron characterized the relationship as**
15 **"Generation Management," (Ex. SNO-913, slide 5) but we even have a recorded**
16 **trader phone conversation wherein Enron directed Las Vegas Cogen to shut down**
17 **a plant, under false pretenses, at a time when a system emergency occurred. (Ex.**
18 **SNO-525)**

15. Valley Electric Authority

Q. Has Dr. Acton also missed evidence regarding Enron's unreported relationship with Valley Electric?

A. Yes. He missed the vast majority of the evidence, including, for example, the following:

- Ex. SNO-76 Enron Real Time Services Handbook, includes counterparty-specific instructions to educate inexperienced traders on how to carry out Enron's schemes. It even specifies the specific products traded, transmission lines that were used by certain partners to initiate a sequence of gaming opportunities (e.g., with "High RT Prices"), and profit-sharing arrangements from this collusion. This document contains a section entitled "Valley Electric Real-Time "Fat Boy"" that provides details enabling Enron traders to carry out the fraudulent schedules.
- Ex. SNO-881 This document contains Enron Service Book with monthly revenue statements from August of 1999 through November of 2000 demonstrating that Enron had an equity sharing agreement with Valley Electric.
- Ex. SNO-835 This John Forney document gives Enron traders instructions for running a Fat Boy involving Valley Electric, including how to submit it in CAPS and Enpower. It goes on to give details for the calculation of monthly energy costs and re-marketing value for Valley Electric.
- Ex SNO-137 This document is a 1999 Performance Review of Enron trader Paul Choi, listing his various accomplishments over the year. It references a profit-sharing arrangement between Enron and Valley Electric as one of his 1999 accomplishments.
- Ex. SNO-876 This Enron spreadsheet contains details of profit sharing between Enron and Valley Electric in February of 2000.
- Ex. SNO-877 This Enron spreadsheet contains details of profit sharing between Enron and Valley Electric in February and March of 2000.
- Ex. SNO-878 This Enron spreadsheet contains details of profit sharing between Enron and Valley Electric in April of 2000.
- Ex. SNO-879 This Enron spreadsheet contains details of profit sharing between Enron and Valley Electric in May of 2000.

- Ex. SNO-880 This Enron spreadsheet contains details of profit sharing between Enron and Valley Electric in June of 2000.

16. Public Service Company of New Mexico

Q. Did Dr. Acton also miss evidence regarding Enron’s unreported relationship with PNM?

A. Yes. For example, Ex. SNO-894 is an Enron email from Bill Williams to the Portland Shift, entitled “PNM Parking for Monday.” It provides details of a Parking arrangement with PNM and states their profit sharing arrangement.

17. Powerex

Q. Has Enron produced any written agreement memorializing a profit sharing arrangement between Enron and Powerex?

A. No, but there is a wealth of evidence demonstrating that Enron worked in concert with Powerex to carry out market manipulation schemes. This relationship, to my knowledge, was never reported by Enron to FERC.

Q. What type of information related to Enron’s relationship with Powerex did Dr. Acton overlook in his testimony?

A. He missed, for example, the following evidence:

- Ex. SNO-838 This is a page from an unidentified Enron trader’s handwritten notes. It has notes on the Ricochet scheme that include the notable line: “PowerX – King of Ricochet.”
- Ex. SNO-765 This PowerPoint presentation by Seabron Adamson (an economist who worked for Enron at the time) contains a detailed examination of the Project Stanley scheme. Project Stanley involved a

1 market sharing agreement between Enron and Powerex, clearly
2 constituting a partnership.

- 3 • Ex. CP-88 This is a transcript of Enron trader tapes, including a number of
4 calls to Powerex as part of Project Stanley. The following conversation is
5 between John Lavorado and Bill Greenizan of Enron and Dan O'Hearn of
6 Powerex. The Powerex trader's reluctance to have this conversation on a
7 recorded phone call shows that he understood its questionable legality and
8 yet wanted to go through with the market manipulation scheme.

9 JOHN: Yeah but I mean the Pool price is 200 right now

10 DAN: Yeh but it won't be by then

11 JOHN: I can assure you it won't be by then if I have your 200
12 megawatts

13 DAN: Uh can you guarantee me that

14 JOHN: No

15 DAN: Well there you go. You will have to talk to me on an
16 untaped line. Um yeh I don't know if we are going to do this
17 today

18
19
20 And
21

22 BILL: Hi Valerie, its Bill calling.

23 VALERIE: Yeah

24 BILL: No problems for hour ending 15 it's all going to flow

25 VALERIE: You are rigging the market are you (laughter)

26 BILL: Its a gong show

27 VALERIE: You good boy. I'm proud of you man. You make
28 us proud

29 BILL: (laughter) Thanks Valerie. (laughter)

30
31
32 And
33

34 JEFF: Oh my God. Well that's ... so finally you guys, you and
35 Powerex are, like, getting to together to screw Alberta,
36 basically.

37 BILL: Yeah, yeah.
38

1 (Ex. SNO-914, pp. 32-33)

- 2
- 3 • Ex. SNO-313. The following trader transcript is of a call Mike Driscoll of
 - 4 Enron made to find a counterparty to help launder his NOB Death Star:

5 MIKE: That's all right. I got some stuff comin' out of the ISO

6 that I need to send south, but BPA don't – doesn't allow that.

7 LEE: I understand.

8 MIKE: So –

9 LEE: You gotta bring it up here and sink it first.

10 MIKE: Yeah, and I don't know who I'm going to br – I gotta

11 find somebody to take it off the Nob for me because I don't

12 have any transmission today to pull me off the Nob.

13 LEE: There's only one person I can think of to do that for

14 you.

15 MIKE: PowerEx.

16 LEE: You got it.

17 MIKE: I know, and they charge an arm and a leg for it.

18 LEE: And – and their first-born.

19

- 20 • Ex. SNO-314 The following trader transcript is of a call Mike Driscoll of
- 21 Enron made to Powerex (shortly after the conversation shown above) in
- 22 an attempt to set up a Death Star:

23 MIKE: Hey, Megan.

24 PERSON 2: Hey, Mike, um, yeah, we should be able to do

25 that, no problem –

26 MIKE: OK.

27 MEGAN: -- ah, so it's 13 through 17.

28 MIKE: Ten megawatts.

29 MEGAN: Ten megawatts coming out from the ISO and

30 sinking with LA?

31 MIKE: Yup, and ah, let's do 130 and 100 on the price, would

32 that work?

33 MEGAN: Ah, 130 and 100, that will work fine.

34 MIKE: Just a 30 dollar difference.

35 MEGAN: Yeah, for sure. Um, and ah, ten megawatts, was it?

36 MIKE: Yup?

37 MEGAN: That was 13 through 17.

1 MIKE: Great, thanks, Megan

2 MEGAN: We'll throw her in. Thanks.

3 MIKE: Bye.

4 MEGAN: Bye.

5

- 6 • Ex. SNO-889 This Enron document lists the accomplishments of real time
7 trader Mike Driscoll. Among the accomplishments listed:

8 Helped bring Powerex hour-ahead California deals to Enron's
9 real time desk. (they offer megawatt size and we offer load
10 service as well as adjustment bid knowledge)

11

- 12 • Ex. SNO-299 This transcript is of a conversation between Mike of Enron
13 and David of PacifiCorp. It includes discussion of a Ricochet scheme
14 involving Powerex.

15 MIKE: Ah, the – it, ah – it is definitely going to the ISO. I
16 just talked to Powerex.

17 DAVID: It can't sink. That path won't work.

18 MIKE: Why's that?

19 DAVID: Cal PX was generating. They won't let somethin'
20 ricochet in.

21 MIKE: Well? Is it actually ricochet?

22 DAVID: Yeah. Being pulled out of California to be
23 ricocheted back in.

24 MIKE: Well, somebody's going to have to get squared away.
25 Ah, we had a Bonneville earlier, but I guess that was a
26 different path so we got – for some reason we had the paths
27 screwed up. So what could we do? You want to talk to
28 Powerex?

29 DAVID: Who at Powerex you dealing with?

30 MIKE: Mike.

31 DAVID: And it's goin' to Powerex, huh?

32 MIKE: Yeah.

33 DAVID: All right.

34 (p.2-3)

- 35 • Ex. SNO-300 This is a transcript of a trader conversation between Mike
36 of Enron and Dale of unknown affiliation, and it includes discussion of
37 Powerex and their desire to perform a Ricochet.

1 MIKE: Hey, ah, what – Powerex, ah, wants to take that to
2 Bonneville system to BC border.

3 DALE: Will Bonneville allow it?

4 MIKE: Yeah.

5 DALE: [inaudible] too?

6 MIKE: They won't allow the latter, I mean, they won't allow
7 the – the ricochet off COB anyway.

8 (p.1)

9
10
11 **Q. How precise was Dr. Acton's document review?**

12 A. Quite poor. Enron and Powerex had a wide range of transactions that could only
13 be called "anomalous," including an explicit market rigging project reviewed by
14 Seabron Adamson, one of Dr. Acton's colleagues at CRA. (Ex. SNO-765).

15 **Q. Dr. Acton has an evocative answer where he praises the partnerships saying**
16 **that:**

17 Overall, these arrangements enhanced the ability of parties to supply
18 electric energy and ancillary services to the California market.
19 Generally speaking, these agreements facilitated the sale of excess
20 generation or capacity from the City of Glendale, the City of Redding,
21 the Colorado River Commission, and Valley Electric Association into
22 the California markets . Enron offered marketing expertise and the
23 benefits of economies of scale and scope in power trading. The parties
24 were willing to pay Enron fees in exchange for these marketing
25 services . Therefore, it is reasonable to infer that these voluntary
26 arrangements increased the power supply by these parties into
27 California markets in comparison with a but-for world in which the
28 arrangements did not exist.

29 (Ex. ENR-1, p. 39).

30
31 **Did he provide any proof to support this?**

32
33 A. No. Obviously, Enron's market division agreement with Powerex in Alberta was
34 not designed to help consumers. Enron's employment of a "Red Congo" scheme
35 involving Redding is a clear effort to gain congestion revenues at the cost of

consumers. Profit sharing arrangements for Fat Boy, Get Shorty, and other schemes face the same objections as when Enron initiated the schemes on their own. When an Enron trader orders Las Vegas Cogen to shut down a plant during a system emergency, this clearly is not beneficial to consumers.

Q. What overall conclusion should the Presiding Administrative Law Judge or the Commission draw regarding Dr. Acton's analysis of Enron's relationships with the identified partnership entities?

A. It is quite obvious that there were gaping holes in Dr. Acton's analysis and, accordingly, the conclusions he reached are untrustworthy.

Profits Estimates

Q. When combined, what is the total amount of Enron's unjust profits that Dr. Acton included in his EL03-154 and EL03-180 testimony?

A. Approximately \$279,489.

Q. How does Dr. Acton's estimate the unjust profits corrected by Enron compare to the unjust profits estimates calculated by witnesses for the FERC Trial Staff, the California Parties and Snohomish?

A. Dr. Acton's estimate is grossly understated. The following table show the different values arrived at by the three other participants:

UNJUST PROFIT FIGURES BY PARTY							
	1997	1998	1999	2000	2001	2002	6/26/2003
SNO (SNO-10)	-\$59,896,000.00	\$59,249,367.00	\$47,787,000.00	\$622,615,489.00	\$1,007,527,510.00		
FERC (SNO)	\$10,266,857.00	\$40,488,023.00	\$31,260,917.00	\$579,095,347.00	\$995,840,015.00	\$207,337,438.00	\$7,270,696.00
CalPlex (SNO)	\$38,200,000.00	\$40,500,000.00	\$31,300,000.00	\$579,300,000.00	\$1,075,000,000.00		

1
2 Despite all the difficulties in obtaining complete and accurate data from Enron,
3 the total estimates submitted by witnesses for the FERC Trial Staff, the California
4 Parties and Snohomish are relatively close to each other and vary within 5% of
5 the mean. The major difference is our very conservative assumption of a loss in
6 1997 based on national data rather than regional data. In total, FERC Trial Staff
7 estimated that Enron collected \$1,871,559,293, the California Parties estimated
8 that Enron collected \$1.76 billion, and Snohomish estimates that Enron collected
9 \$1,677,283,366.

10 **Q. The California Parties report net profit figures that subtract operating costs**
11 **associated with Western Power Trading. In your opinion, should Enron be**
12 **allowed to collect more than the just and reasonable costs of serving power**
13 **customers in the West?**

14 A. No. I would not characterize costs incurred by Enron to carry out its criminal
15 enterprise, such as the salaries of executives that have admitted to Federal crimes
16 involving acts of electric market manipulation, as “just and reasonable.”

17 **Q. Will the additional Load Shift and Get Shorty games identified in your**
18 **rebuttal testimony change any of your calculations in your supplemental**
19 **testimony?**

20 A. Yes. My calculation on page 160 line 15 of my supplemental testimony (Ex.
21 SNO-710) calculates the total profits earned on days Enron engaged in one or
22 more schemes during January 16, 1997 to June 25, 2003. This figure would be

1 increased from \$1,355,129,960.01 to \$1,361,921,743.67 with the inclusion of
2 these additional games.

3 **Second Supplemental Testimony of Jeffrey D. Merola**

4 **Q. Have you reviewed the Second Supplemental Testimony and Exhibits of**
5 **Jeffrey D. Merola (Ex. CP-182)?**

6 A. Yes. In particular, I reviewed Mr. Merola's calculations regarding EPMI's net
7 profits using data provided in response to CAL-ENR-24 and Snohomish Data
8 Response SNO-ENR-272.

9 **Q. What did Mr. Merola conclude regarding EPMI's net profits?**

10 A. Mr. Merola concluded that "EPMI made approximately 1.76 billion in net profits
11 from wholesale power transactions in the Western United States between January
12 1997 and December 2, 2001." (Ex. CP-182 at p 2)

13 **Q. Did Mr. Merola make a distinction between EPMI profits that allegedly**
14 **involved the California market and those that allegedly did not?**

15 A. Yes. Mr. Merola's estimate of Enron's profits from the California market is
16 derived from an assumption that Enron's short term trading volumes - as reported
17 in Enron's Enpower Database - in the California market indicate the ratio of
18 profits Enron derived from the California market (Ex. CP-182 at p 8-9). Using
19 the ratio of short term trading volumes, Mr. Merola concludes that EPMI's net
20 profits in the California market were \$1.25 billion of the total \$1.76 billion net
21 EPMI profits (Ex. CP-182 at p 9-10 and Ex. CP-194).

1 **Q. Do you agree with Mr. Merola’s conclusions regarding the distribution of**
2 **Enron's profits with respect to the California market in Ex. CP-182?**

3 A. No. First of all, a discussion of the distribution of Enron's profits between regions
4 is best suited to the distribution phase of this proceeding. Second, Mr. Merola's
5 assumption that short term trading volumes in the California market provide a
6 ratio that can be applied to profits is incorrect because he does not take into
7 account the substantial volume of EPMI trades from long term contracts with
8 counterparties outside of California. As a result, Mr. Merola over-values the
9 profits attributed to Enron's activity in the California market. Third, Enron’s own
10 accounting records, including its Trader Performance reports (Ex. SNO-906),
11 show very different regional profit figures than those calculated by Mr. Merola.

12 **Q. Do Enron’s own records show that Enron’s Pacific Northwest desk generated**
13 **the largest share of Enron’s profits in the West?**

14 A. Yes. Enron arranged Western Power Trading by desks, including the Northwest
15 “NW” desk, California “Cali” desk, and Southwest “SW” desk. Enron has
16 provided Trader Performance reports for these desks for 1998, 2000, and 2001,
17 which illustrate the shares of Enron’s profits attributed to each of these desks.
18 While it would be best to have all of the data, these three years give a good
19 indication of Enron’s view of the breakdown of regional profits.

20 **Q. What do the data for these three years show?**

21 A. These three years show \$1.318 billion in profits allocated to regions. I did not
22 attempt to “regionalize” the hourly desk since there was no regional attribution of

hourly profits in the Trader Performance reports. Of the \$1.318 billion in profits, 48.3% was from the Northwest, 28.0% from California, and 23.7% from the Southwest.

					TOTAL NORTHWEST	TOTAL CALIFORNIA	TOTAL SOUTHWEST
	0	21197288.28	78245521.63	99442809.9	\$636,116,257	\$369,228,131	\$312,769,761
	60171536.54	251581426.1	218684455.9	530437419			
	2396799.979	15683302.29	132956437.9	151036540			
	-7275180.046	87307322.27	174849831.7	254881974			
	3709495.52	142062809.2	72419285.87	218191591		\$1,318,114,149	
	285829.6686	73335708.55	32057300.39	105678839			
	1551948.181	27938388.39	28397450.4	57887787			
	0	22276514.73	22765430.19	45041944.9			
	-2047046.761	-132150722	-548297.1229	-134746066			
					Regional %	Regional %	Regional %
	59249367.08	510021023.3	832752434.7	1402022825	48.3%	28.0%	23.7%

(Ex. SNO-906)

Q. Do Enron trader conversations confirm your conclusion that the Pacific Northwest was Enron's largest profit center?

A. Yes. On November 30, 2000 Stewart Rosman made the same point in a conversation:

STEWART ROSMAN: - but, in terms of the f - the markets that we trade, California certainly should be looked at as - the Northwest's probably our most possible cen- ah, profit center, and then right after that's California.

(Ex. SNO-379 p.4)

Q. Do Enron's own documents also indicate that not just California, but other states in the West, such as Washington, were susceptible to the California electricity crisis?

A. Yes. The following slide shows which states Enron viewed as most susceptible to the California crisis:

Which States Are Most Susceptible to California Crisis?

- Washington
- Oregon
- Idaho
- Montana
- Wyoming
- Nevada
- Utah
- Arizona
- Colorado
- New Mexico

EX. SNO-908

(Ex. SNO-908) This document undercuts Mr. Merola's assumption that California bore the largest brunt of the profits reaped by Enron during the crisis.

(Ex. CP-182 at p. 2)

Conclusion

Q. Overall, how would you characterize Dr. Acton's conclusions?

A. Carefully crafted to rebut the California ISO's reports, but his arguments are extreme and he effectively requests that FERC bless gaming practices that are far from normal in a competitive market and jeopardize the reliability of the electric

1 system. Electric systems are intolerant of deception and mismanagement because
2 reliability problems occur instantaneously and recovery is expensive and difficult.

3 **Q. Do you believe Dr. Acton's profit numbers reflect the "full extent" to which**
4 **Enron has been enriched unjustly?**

5 A. Absolutely not. Dr. Acton has attempted to correct some California ISO estimates
6 and simply dismissed other schemes entirely. His profit numbers, quite simply,
7 are vastly understated and cannot be trusted. Missing from his analysis are
8 several critical elements:

9 1. Enron was operating a pervasively fraudulent operation with a substantial
10 fraction of its resources dedicated to schemes ranging from taking advantage of
11 rounding errors in computer software on one extreme to scheduling enormous
12 amounts of energy and transmission under false pretences on the other. He would
13 have us believe that this extensive exercise was in pursuit of only \$279,489 out of
14 approximately \$1.8 billion of total earnings during 2000 and 2001. Dr. Acton's
15 assertion makes no sense because Enron likely would not have risked prosecution
16 for such a relatively fruitless criminal enterprise.

17 2. Dr. Acton overlooks the fact that Enron's accounting is the subject of
18 numerous convictions and guilty pleas. Enron's chief financial officer has
19 pleaded guilty, its accounting firm has been convicted and disbanded, and the vast
20 majority of its records seized, destroyed or lost. Even where information is
21 available, Dr. Acton has simply disregarded or overlooked documents and records
22 that are not consistent with his conclusions.

1 3. Dr. Acton erroneously treats each scheme as if it were isolated and
2 limited, but in fact it is now clear that Enron's schemes were part of a large,
3 interconnected, and interdependent criminal enterprise aimed at distorting market
4 prices across the West. Dr. Acton also erroneously treats the schemes as if they
5 affected only the California ISO and PX markets, but it is clear that the
6 interconnected nature of the Western markets allowed Enron to extract unjust
7 profits from across the Western Interconnect and in forward markets as well as
8 spot markets. The fundamental question should not be the calculation of specific
9 settlement level values for individual transactions in the ISO and PX markets, –
10 but instead whether Enron should be allowed to enjoy the fruits of market-based
11 pricing when it so grossly abused its market-based rate privilege and failed to
12 respect the rules and regulations of the market.

13 4. Dr. Acton assumes that Enron is entitled to any profits that cannot be
14 linked to an Enron scheme. This approach does not comport with the relevant
15 standards laid down in the Commission's orders issued in this proceeding on July
16 22, 2004 and May 12, 2005 (108 FERC ¶ 61,071 & 111 FERC ¶ 61,221). As the
17 orders indicate, Enron may be precluded *any* profit made under all wholesale
18 power contracts that were executed in the West when Enron was in violation of
19 FERC tariffs and its own market-based rate authority. Nor is Dr. Acton's
20 approach practicable given the inherent difficulties in individually evaluating the
21 market effects or profits derived from interconnected schemes.

1 **Q. Even assuming Dr. Acton's incredible position that little to no monetary**
2 **remedy is needed in this case because Enron made little to no profits from its**
3 **gaming practices and partnerships in the West were correct, do you believe**
4 **the Commission should adopt a forceful, non-monetary remedy in this case?**

5 A. Absolutely. The Commission should rescind Enron's market-based rate privilege
6 effective as of January 16, 1997. As the Commission has already found, Enron
7 began violating the conditions of its market-based rate privilege as early as
8 January 16, 1997, when Enron failed to report its relationship with El Paso
9 Electric. (*El Paso Electric Co., et al.*, 108 FERC ¶ 61,071 (2004)). The FERC
10 Trial Staff also has acknowledged recently that Enron's market-based rate
11 authority should be revoked starting on January 16, 1997. (Ex. SNO-896).

12 **Q. What profits should be allowed if Enron loses its Market Based Rate**
13 **Authority?**

14 A. None.

15 **Q. Does this complete your rebuttal testimony?**

16 A. Yes.

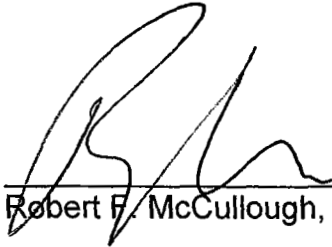
**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Enron Power Marketing, Inc.	)	Docket No. EL03-180-000
and Enron Energy Services Inc.)	
)	
Enron Power Marketing, Inc.	)	Docket No. EL03-154-000
and Enron Energy Services Inc.)	
)	
Portland General Electric Company	)	Docket No. EL02-114-007
)	
Enron Power Marketing, Inc.	)	Docket No. EL02-115-008
)	
El Paso Electric Company	)	Docket No. EL02-113-000
Enron Power Marketing, Inc., and)	
Enron Capital and Trade Resources Corp.)	
		(consolidated)

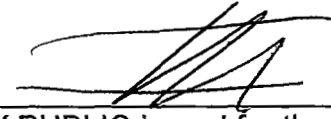
Affidavit of Robert F. McCullough, Jr.

State of Oregon)

I, Robert F. McCullough, Jr., being duly sworn, depose and state that the contents of the foregoing testimony are true, accurate, and complete, to the best of my knowledge, information and belief.


Robert F. McCullough, Jr.

SUBSCRIBED AND SWORN to before me, the undersigned notary public, this 6th day of May, 2005.


NOTARY PUBLIC in and for the State of Oregon



My Commission Expires: 2/03/2006