UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Fact-Finding Investigation of Potential Manipulation of Electric and Natural Gas Prices	)))	**Docket No. PA02-2-000**

RESPONSE OF PACIFICORP TO THE COMMISSION'S DATA REQUEST DATED MAY 8, 2002

AFFIDAVIT OF STANLEY K. WATTERS ON BEHALF OF PACIFICORP

COUNTY OF MULTNOMAH)
) ss.
STATE OF OREGON)

Stanley K. Watters, upon oath, deposes and says:

1. I am currently Vice President of Trading and Origination for PacifiCorp ("PacifiCorp" or "the Company").

2. I give this affidavit on behalf of PacifiCorp in response to the data request of the Federal Energy Regulatory Commission (the "Commission") issued in this proceeding, dated May 8, 2002 (the "Data Request"). A copy of the Data Request is attached hereto for reference as Exhibit 1. The Data Request seeks information with respect to certain trading strategies that PacifiCorp may have engaged in through its employees and agents, including those of its

affiliates[1] and subsidiaries, in the United States portion of the Western Systems Coordinating Council (the "WSCC") during the calendar years 2000 and 2001 ("Requested Period"). The Data Request is issued to sellers of wholesale electricity and/or ancillary services to the California Independent System Operator (the "CAL-ISO") and/or the California Power Exchange (the "CAL-PX") during the Requested Period.

3. Following the Company's response to the Data Request, I explain below the process by which the Company has collected information, documents and data in a diligent effort to provide responses to the Data Request within the time allowed by the Commission.

Overview of PacifiCorp

4. PacifiCorp is an investor-owned utility headquartered in Portland, Oregon, serving retail customers located in six western states: Oregon, Washington, California, Wyoming, Utah, and Idaho. Approximately 85% of its customers are residential; approximately 11% are commercial; and approximately 4% are industrial. PacifiCorp is regulated by the Commission under the Federal Power Act and by the state public utility regulatory commissions in each of the states in which it conducts retail electric operations.

5. As a load-serving utility, PacifiCorp is responsible for providing reliable and efficient electric service to more than 1.5 million customers within its service area. The Company owns or has an interest in 71 generation plants with a nameplate capacity of approximately 8,200 MW, which include coal-fired plants, hydroelectric facilities, gas-fired plants, co-generation facilities, geothermal plants, and wind projects (collectively, the "Generation Plants").

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[1] An "affiliate" is defined as stated in 18 C.F.R § 161.2 (2001); *see The Power Company of America, L.P.*, 79 FERC ¶ 61,067 at 61,325-12 (1997) (applying definition of "affiliate" in the Commission's Standards of Conduct for Interstate Pipelines with Marketing Affiliates to non-EWG public utilities). Because PacifiCorp and its affiliate,

Summary of PacifiCorp Trading

6. PacifiCorp's Commercial & Trading ("C&T") business unit is tasked to create a close balance between PacifiCorp's power resources and power load. Power load refers to the volume of electricity delivered to the Company's residential, industrial, commercial and wholesale customers. PacifiCorp's power resources include the output from the Generation Plants, qualified facilities and purchased power contracts. C&T balances the Company's energy position by managing these energy resources, adjusting purchases, or throttling back or stepping up production of the Generation Plants as needed. The group guides the course of power output at each Generation Plant to assure that generation equals load for any given hour in the most economic manner. Balancing the Company's position also means buying and selling energy as needed.

7. The terms trading, balancing and hedging relative to the Company should be distinguished. Trading is either buying in anticipation of a price increase or selling in anticipation of a price decrease. Balancing is adjusting purchases and sales seasonally and hourly to equate available resources with load needs, in addition to assuring that generation equals load for any given hour in the most economic manner. Hedging is balancing plus financial and physical transactions that mitigate risk. C&T's activities are designed to optimize PacifiCorp's assets, balance its load and prudently hedge risk.

8. PacifiCorp's Wholesale Energy Services ("WES") group carries out the front and mid-office activities of C&T. The front-office employees are real-time traders who buy and sell power. A separate group of traders, called market traders, negotiate short-term and long-term contracts for power to be delivered days, months or years in the future. Market traders manage

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PacifiCorp Power Marketing, Inc. ("PPM"), operate pursuant to a Code of Conduct, and because each received the

the Company's overall position in the electric and gas commodity markets to control risk and to ensure reliability of energy supply. Mid-office personnel support the front-office in a planning, analysis and administrative function. All of this activity is intended to serve the Company's overriding purpose: to ensure reliable, uninterrupted service to PacifiCorp's customers.

9. As it may be relevant to the Company's response to the Data Request, the Company experienced an extended, unscheduled outage at one of its Generating Plants (the Hunter I Power Plant in Utah) during the period of late November 2000 to May 2001 ("Hunter Outage"). Also during the Requested Period, the western states experienced historic low water levels, which significantly reduced hydroelectric generation output. The Hunter Outage and extremely low water levels, coupled with the west-wide electric power shortage, placed PacifiCorp in a particularly pronounced net short position that required PacifiCorp to go into the energy market to balance its power resources and power load.

Transactions in the WSCC in 2000-2001

10. During the Requested Period, PacifiCorp purchased and sold approximately 64 million MWhs in short-term firm and non-firm energy throughout the WSCC.

Transactions Involving the CAL-PX and CAL-ISO in 2000-2001

11. During the Requested Period, PacifiCorp purchased and sold approximately 1.8 million MWhs in the CAL-PX market.

12. During the Requested Period, PacifiCorp purchased and sold approximately 750,000 MWhs in the CAL-ISO market.

13. During the Requested Period, PacifiCorp paid approximately $5.6 million in congestion fees to the CAL-ISO and received approximately $800,000 from the CAL-ISO in

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Data Request, PacifiCorp and PPM are each submitting a separate response.

congestion payments, for a net congestion fee paid to the CAL-ISO of approximately $4.8 million.

General Statements Regarding the Data Request

14. In preparing this affidavit, I have read and referred to the two Enron memoranda dated December 6, 2000 (attached hereto as Exhibit 2A), and December 8, 2000 (attached hereto as Exhibit 2B) (the "Stoel Rives Memos"), together with the undated memo addressed to Richard Sanders prepared by the Brobeck law firm (attached hereto as Exhibit 2C), all posted on the Commission's web page for Docket No. PA02-2-000.

15. The Commission's Data Request states:

> "The two Enron memoranda dated December 6, 2000, and December 8, 2000, describe in detail certain trading strategies engaged in during the years 2000 and 2001 by Enron traders and, allegedly, traders of other companies active in wholesale electricity and ancillary services markets in the West and particularly in California. According to the memoranda, these trading strategies generally fall into two categories."
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> "The December 6, 2000, and December 8, 2000, Enron memoranda then outline ten "representative trading strategies" that employ "**inc-ing load**" and "**relieving congestion.**"[2] The following requests for admissions describe certain activities, using the names applied to the "representative trading strategies" in the Enron memoranda. While you are to refer to the Enron memoranda, you must respond with respect to the description of each activity contained below and, as applicable, provide the specified details as to each activity."

16. Unless otherwise specifically stated, all references to activities, events or transactions of the Company described in this response to the Data Request are to occurrences within the Requested Period.

[2] The two dated memoranda list as number two both the Non-firm Export and Death Star strategies; thus, there are in fact a total of ten strategies listed, not nine.

17. Where there are conflicts between the description of a trading strategy in the Data Request and the description of that strategy in the Stoel Rives Memos, I rely on the Commission's description in the Data Request.

PacifiCorp's Responses to Specific Inquiries

18. In seeking the Company's response to the Data Request, the Commission sets forth the following introduction concerning "inc-ing load":

> The first [strategy] is described as "**inc-ing load**" into the California Independent System Operator's (Cal ISO) real time market. Here, a company artificially increases load on a schedule it submits to the Cal ISO with a corresponding amount of generation. The company then dispatches the generation it scheduled, which is in excess of its actual load. This, in turn, results in the Cal ISO paying the company for the excess generation. Scheduling coordinators that serve load in California were able to use this trading strategy to include generation of other sellers (*e.g.*, Powerex and Puget Sound Energy).

PacifiCorp's Comment Concerning the General Description of "Inc-ing Load"

19. PacifiCorp submits the following comment concerning the Commission's general description of "inc-ing load."

20. PacifiCorp has never engaged in "inc-ing load" into the real time market of the CAL-ISO. While PacifiCorp is a certified scheduling coordinator ("SC") with the CAL-ISO, it has never artificially increased the load it scheduled with the CAL-ISO so that a corresponding amount of generation can be dispatched to earn an imbalance payment from the CAL-ISO. Indeed, the only load scheduled by PacifiCorp in the CAL-ISO involves certain loads in California aggregated by the Green Mountain Energy Company ("Green Mountain").[3] This load

[3] Green Mountain purchases energy from a variety of renewable resources to serve customers that have selected Green Mountain as their energy supplier in California. PacifiCorp is one of the SCs who schedules the California loads and resources of Green Mountain with the CAL-ISO.

was approximately 30 MW during the Requested Period.[4] PacifiCorp reviewed the estimated or profiled amounts of load it received from Green Mountain and submitted those estimates as part of a balanced schedule to the CAL-ISO. PacifiCorp notes that some of the Green Mountain load scheduled by PacifiCorp is served by renewable wind generation that is a highly intermittent resource.[5]

21. Subject to the Green Mountain statements set forth in paragraph 20 above, PacifiCorp did not submit schedules of load to the CAL-ISO control area.

22. In seeking the Company's response to the Data Request, the Commission sets forth the following introduction concerning "relieving congestion":

> The second is described as "**relieving congestion**" and involves a company first creating congestion in the California Power Exchange's (Cal PX) market, and then "relieving" such congestion in the real time market. This trading strategy is accomplished through such actions as reducing schedules or scheduling energy in the opposite direction of a constraint (counterflows), for which the Cal ISO will make payment to the company.

PacifiCorp's Comment Concerning the General Description of "Relieving Congestion"

23. PacifiCorp submits the following comment concerning the Commission's general description of "relieving congestion."

24. PacifiCorp did not submit schedules to the CAL-PX in its day ahead or hour ahead markets with the intention of creating and then relieving congestion in the real time market.

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[4] In contrast to the Green Mountain load that is within the control area of the CAL-ISO, PacifiCorp has a service territory in northern California that is electrically served by PacifiCorp's West Control Area. While located in California, this service territory is not part of the control area of the CAL-ISO.

[5] PacifiCorp has approximately 1 MW of wind resources located in Riverside, California. From January 1, 2000 until October 3, 2000 (the date on which the resources were transferred to PPM), this wind generation was included by PacifiCorp as part of the schedules submitted to the CAL-ISO to meet its obligation to Green Mountain.

PacifiCorp's Response Concerning "Export of California Power"

25. As Part A. of the Data Request, the Commission states:

> 1. Admit or Deny: The company engaged in activity referred to in the Enron memoranda as "**Export of California Power**" during the period 2000-2001, in which the company buys energy at the Cal PX to export outside of California in order to take advantage of the price spread between California markets (which were capped) and uncapped markets outside California.
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> 2. If you so admit, provide complete details as to all transactions your company engaged in as part of this activity, including the dates of all purchases and sales of energy and/or ancillary services, counter-parties to the transactions, prices and volumes, delivery points, and corresponding Cal ISO schedules. Also, provide all documents that refer or relate to the activity described immediately above.

26. **In response to Part A.1. of the Data Request regarding "Export of California Power," the Company states: Admitted.**

27. PacifiCorp purchased energy and has historically purchased energy in the California market primarily to serve load in its six-state service area, including areas inside California.[6] When PacifiCorp purchased energy from the CAL-PX, it added this energy to the portfolio used to serve and balance its load. PacifiCorp has historically exported energy out of California to serve its customers and balance its system prior to the creation of the CAL-PX and the CAL-ISO.

28. During the period when price caps applied only to California within the WSCC, some of these transactions involved a price arbitrage between the purchase price in California and the sale price outside California. In some of those instances, the purchase price may have been at the capped level; in other instances the California purchase price would have been less than the capped price. The responsibility of a regulated utility to its customers is to optimize its assets and operate its facilities as efficiently as possible. This includes the efficient operation of its

transmission rights. The price differential between a lower California purchase price and a higher non-California sale price allowed PacifiCorp to optimize its assets and more efficiently operate its system for its customers. Moreover, it should be noted that at the time PacifiCorp had long been a proponent of Commission price caps for the entire WSCC. In the absence of these caps, the Company incurred substantial, potentially unrecoverable, excess power costs during the Requested Period due to the volatility in the western wholesale electric market, exacerbated by the Hunter Outage and historic low hydroelectric generation output. PacifiCorp's purchases from California helped to mitigate these costs while providing reliable and efficient service to its customers.

29. **In response to Part A.2. of the Data Request regarding "Export of California Power," the Company states: Not applicable.** Given the nature of PacifiCorp's portfolio management and its obligation to serve its customers, PacifiCorp is unable to match energy purchases inside California with corresponding energy sales outside of California to another entity. Most of the purchases inside California were exported to serve PacifiCorp's retail customers.

PacifiCorp's Response Concerning "Non-Firm Export"

30. As Part B. of the Data Request, the Commission states:

> 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Non-Firm Export**" during the period 2000-2001, in which the company gets a counterflow (scheduling energy in the opposite direction of a constraint) congestion payment from the Cal ISO by scheduling non-firm energy from a point in California to a control area outside of California, and cutting the non-firm energy after it receives such payment.
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> 2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all

[6] See fn. 4.

transactions, congestion payments received, corresponding Cal ISO schedules, counter parties, and delivery points. Also, provide all documents that refer or relate to the activity described immediately above.

31. **In response to Part B.1. of the Data Request regarding "Non-Firm Export," the Company states: Denied.**

32. As set forth above in paragraphs 4 through 9, PacifiCorp must provide reliable electric service to its customers located in six western states. As a consequence, its primary purpose for purchasing energy from California, or in any other location, is to serve or balance the load in its service areas.

33. The Commission's description of "Non-Firm Export" implies, in using the phrase "by scheduling," that the scheduling of counterflow is done for the purpose of receiving a CAL-ISO congestion payment while having no intention of providing the power. PacifiCorp never did this.

34. **In response to Part B.2. of the Data Request regarding "Non-Firm Export," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Death Star"

35. As Part C. of the Data Request, the Commission states:

1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Death Star**" during the period 2000-2001, in which the company schedules energy in the opposite direction of congestion (counterflow), but no energy is actually put onto the grid or taken off of the grid. This allows the company to receive congestion payments from the Cal ISO.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, all transmission and energy schedules, the counter parties, all congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

36. **In response to Part C.1. of the Data Request regarding "Death Star," the Company states: Denied.**

37. PacifiCorp operates two control areas, one to the north of California (referred to as the "West Control Area") and one to the east of California (the "East Control Area"). The location of the two control areas, and PacifiCorp's rights to use other transmission assets outside of California, give PacifiCorp the ability to transfer, or "circulate," energy in between the northern congestion zone in California ("NP15") and the southern congestion zone in California ("SP15"), using transmission facilities external to the transmission grid operated by the CAL-ISO (the "ISO Controlled Grid"). The ability to circulate energy using PacifiCorp's transmission assets (*e.g.*, exporting at NP15 and importing at SP15, or vice versa) allows PacifiCorp to relieve congestion on the ISO Controlled Grid. In many instances, the CAL-ISO requested PacifiCorp's assistance in relieving congestion by transferring energy as described above. When PacifiCorp complied with the CAL-ISO's requests (or otherwise transferred energy as described above) it: (a) relieved congestion on the ISO Controlled Grid and received congestion revenues for doing so; and (b) used PacifiCorp transmission facilities or PacifiCorp transmission rights with the consequence that those assets or rights were not available for other uses. In all circumstances, energy was actually put onto and taken off the ISO Controlled Grid and, therefore, PacifiCorp in no way engaged in the Death Star strategy.

38. **In response to Part C.2. of the Data Request regarding "Death Star," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Load Shift"

39. As Part D. of the Data Request, the Commission states:

> 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Load Shift**" during the period 2000-2001. This variant of "relieving congestion" involves submitting artificial schedules in order to receive inter-zonal congestion payments. The appearance of congestion is created by deliberately over-scheduling load in one zone (*e.g.*, NP-15), and under-scheduling load in another, connecting zone (*e.g.*, SP-15); and

shifting load from a congested zone to the less congested zone, thereby earning congestion payments for reducing congestion.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, all schedules of load by zone, and congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

40. **In response to Part D.1. of the Data Request regarding "Load Shift," the Company states: Denied.**

41. PacifiCorp never engaged in the activity described as Load Shift. As noted in the response to the strategy of "Inc-ing Load", the only load schedules submitted by PacifiCorp to the CAL-ISO were for certain loads in California aggregated by Green Mountain. When submitting balanced schedules to the CAL-ISO, PacifiCorp never submitted artificial load schedules, whether for the purpose of creating the appearance of congestion or otherwise.

42. **In response to Part D.2. of the Data Request regarding "Load Shift," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Get Shorty"

43. As Part E. of the Data Request, the Commission states:

1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Get Shorty**" during the period 2000-2001, also known as "paper trading" of ancillary services in which it: (i) sells ancillary services in the Day-ahead market; and (ii) the next day, in the real-time market, the company "zeros out" the ancillary services by cancelling the commitment to sell and buying ancillary services in the real-time market to cover its position. The phrase "paper trading" is used because the seller does not actually have the ancillary services to sell.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this trading strategy, including the dates of all transactions; prices and volumes for sales of ancillary services in the Day-ahead market; the cancellation of such sales, prices and volumes for the purchase of ancillary services in the real-time market to cover the company's position; and corresponding schedules. Also, provide all

documents that refer or relate to the activity described immediately above.

44. **In response to Part E.1. of the Data Request regarding "Get Shorty," the Company states: Denied.**

45. PacifiCorp never sold or offered to sell ancillary services to the CAL-ISO in the ancillary services auction, nor did it ever commit to self-supply ancillary services in schedules submitted to the CAL-ISO.

46. **In response to Part E.2. of the Data Request regarding "Get Shorty," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Wheel Out"

47. As Part F. of the Data Request, the Commission states:

> 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Wheel Out**" during the period 2000-2001. Knowing that an intertie is completely constrained (*i.e.*, its capacity is set at zero), or that a line is out of service, the company schedules a transmission flow over the facility. The company also knows that the schedule will be cut and it will receive a congestion payment without actually having to send energy over the facility.
>
> 2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, corresponding schedules, counter parties, and congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

48. **In response to Part F.1. of the Data Request regarding "Wheel Out," the Company states: Denied.**

49. PacifiCorp never scheduled transmission flow over an intertie or line with knowledge that it was completely constrained or out of service.

50. **In response to Part F.2. of the Data Request regarding "Wheel Out," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Fat Boy"

51. As Part G. of the Data Request, the Commission states:

1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Fat Boy**" during the period 2000-2001 in which the company artificially increases load on the schedule it submits to the Cal ISO with a corresponding amount of generation. The company then dispatches the generation its schedules, which is in excess of its actual load. This results in the Cal ISO paying the company for the excess generation. Scheduling coordinators that serve load in California may be able to use this activity to includes the generation of other sellers.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, corresponding schedules, and payments from the Cal ISO for excess generation (including both price and volumes). Also, provide all documents that refer or relate to the activity described immediately above.

52. **In response to Part G.1. of the Data Request regarding "Fat Boy," the Company states: Denied.**

53. As set forth above in paragraph 41, PacifiCorp did not artificially increase the limited load it scheduled to the CAL-ISO, nor did it submit load schedules for the purpose of obtaining payments for excess generation.

54. See also the comment concerning "inc-ing load" set forth in paragraph 20 above, and the response to Part D.1., above.

55. **In response to Part G.2. of the Data Request regarding "Fat Boy," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Ricochet"

56. As Part H. of the Data Request, the Commission states:

1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Ricochet**," also known as "megawatt laundering," during the period 2000-2001, in which the company: (i) buys energy from the Cal PX and exports to another entity, which charges a small fee; and (ii) the first company resells the energy back to the Cal ISO in the real-time market.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates for all transactions, names of counter parties and whether they were affiliates, the fees charged, prices and volumes for energy that was bought and then re-sold. Also, provide all documents that refer or relate to the activity described immediately above.

57. **In response to Part H.1. of the Data Request regarding "Ricochet," the Company states: Denied.**

58. The term "ricochet" has been used with a variety of meanings in the energy markets. PacifiCorp did not originate transactions like the type described in Part H.1. of the Data Request. It did make sales in the real time market in California. These transactions included PacifiCorp: (a) sales in the CAL-ISO's real time energy market in the form of accepted Supplemental Energy bids; (b) bilateral sales to the CAL-ISO in response to so-called "out-of-market" requests by the CAL-ISO; and (c) bilateral sales to the California Department of Water Resources ("CDWR") after CDWR became the creditworthy entity supporting CAL-ISO's requests for out-of-market energy. In no circumstance did PacifiCorp ever purchase energy from the CAL-PX with the intent and purpose of selling a similar amount of energy back to the CAL-ISO in real time. Rather, each forward purchase from the CAL-PX was made for the purpose of serving PacifiCorp's customers, and the real time sales back to California were made for the purpose of reducing forward purchased power costs due to any unanticipated imbalances remaining after meeting customers' requirements.

59. PacifiCorp facilitated another type of transaction that is not a "Ricochet."

60. This type of transaction involves a purchase and sale that uses PacifiCorp's transmission assets or rights. For example, prior to, as well as after, the creation of the CAL-ISO, PacifiCorp used its transmission system to assist third parties in using their own transmission assets or rights. A typical example occurs at the interface known as the California

Oregon Interconnection ("COI").[7] On the northern side of COI, Bonneville Power Administration ("BPA") is in charge of scheduling. On the southern side of COI, the CAL-ISO currently is the control area operator in charge of scheduling. The interface itself is made up of three 500kV transmission lines. In California, two of these lines are owned by the investor-owned utilities in California, terminate at the Malin substation, and are referred to as the "Pacific AC Intertie" (PACI). The third line is owned by municipal entities in California, terminates at the Captain Jack substation, and is known as the "California Oregon Transmission Project" (COTP). PacifiCorp has participated in transactions using its transmission rights at COI to assist other entities (such as the municipal owners of the COTP) in using their own transmission assets and rights (*e.g.*, effectively transferring energy from the Malin substation to the Captain Jack substation, or vice versa). While these transactions (and other similar transactions) – referred to for convenience here as "PacifiCorp Transmission Transactions"-- can involve a purchase by PacifiCorp from California and a sale by PacifiCorp back to California, they do not involve a sale to the CAL-ISO in real time, and they require the use of PacifiCorp's transmission system or rights. When PacifiCorp engages in such transactions, the transmission capacity is not available for other uses by PacifiCorp and hence a small fee is charged. This type of transaction is not, in PacifiCorp's view, a "Ricochet" or a variant of "Ricochet." Part H.1. seeks an admission whether the Company initiated a transaction described as a "Ricochet." PacifiCorp did not initiate such a transaction. See also response to Part III.B below.

61. **In response to Part H.2. of the Data Request regarding "Ricochet," the Company states: Not Applicable.**

[7] The interface also is referred to generally as the California Oregon Border ("COB").

PacifiCorp's Response Concerning "Selling Non-firm Energy as Firm Energy"

62. As Part I. of the Data Request, the Commission states:

> 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Selling Non-firm Energy as Firm Energy"** during the period 2000-2001, in which the company sells or resells what is actually non-firm energy to the Cal PX, but claims that it is "firm" energy. This allows the company to receive payment from the Cal ISO for ancillary services that it claims to be providing, but does not in fact provide.
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> 2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates for all transactions, prices and volumes, and corresponding schedules. Also, provide all documents that refer or relate to the activity described immediately above.

63. **In response to Part I.1. of the Data Request regarding "Selling Non-firm Energy as Firm Energy," the Company states: Denied.**

64. PacifiCorp only made firm sales to the CAL-PX. PacifiCorp did make ten non-firm sales to the CAL-ISO during the Requested Period, but never represented that the energy in those transactions was "firm."

65. **In response to Part I.2. of the Data Request regarding "Selling Non-firm Energy as Firm Energy," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Scheduling Energy to Collect Congestion Charge II"

66. As its Part J. of the Data Request, the Commission states:

> 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Scheduling Energy to Collect Congestion Charge II"** during the period 2000-2001, in which the company: (i) schedules a counterflow even though it does not have any available generation; (ii) in real time, the Cal ISO charges the company for each MW that it was short; and (iii) the company collects a congestion payment associated with the counterflow scheduled. This activity is profitable whenever the congestion payment is greater than the charge associated with the energy that was not delivered.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates for all transactions, corresponding schedules, prices and volumes, and congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

67. **In response to Part J.1. of the Data Request regarding "Scheduling Energy to Collect Congestion Charge II," the Company states: Denied.**

68. PacifiCorp never scheduled counterflows during any periods without available generation, and never scheduled counterflows without available generation in order to collect a congestion payment for the counterflows.

69. **In response to Part J.2. of the Data Request regarding "Scheduling Energy to Collect Congestion Charge II," the Company states: Not applicable.**

PacifiCorp's Response Concerning "Variants" of the Described Strategies

70. As its Part K. of the Data Request, the Commission states:

1. Admit or Deny: The company engaged in any activity during the period 2000-2001 that is a variant of any of the above-described activities or that is a variant of, or uses the activities known as, "**inc-ing load**" or "**relieving congestion**," as described above.

2. If you so admit, provide a narrative description of each specific time in which the company engaged in such activity and provide complete details of those transactions, including the dates of the transactions, counter parties, prices and volumes bought or sold, corresponding schedules, and any congestion payments received. Also, provide all documents that refer to or relate to such activities.

71. **In response to Part K.1. of the Data Request regarding "Variants," the Company states: Denied.**

72. **In response to Part K.2. of the Data Request regarding "Variants," the Company states: Not applicable.**

PacifiCorp's Response Concerning Part II of the Data Request

73. As its Part II of the Data Request, Requests for Production of Documents, the Commission states:

A. Provide copies of all communications or correspondence, including e-mail messages, instant messages, or telephone logs, between your company and any other company (including your affiliates or subsidiaries) with respect to all of the trading strategies discussed in the Enron memoranda (both the ten "representative trading strategies" as well as "**inc-ing load**" and "**relieving congestion**"). This request encompasses all transactions conducted as part of such trading strategies engaged in by your company and the other company in the U.S. portion of the WSCC during the period 2000-2001.

74. **In response to Part II.A. of the Data Request, the Company states: To date, the Company has not identified any documents responsive to this request; however, see the response set forth in paragraph 95, below.**

75. As its Part II of the Data Request, Requests for Production of Documents, the Commission states:

B. Provide copies of all material, including, but not limited to, opinion letters, memoranda, communications (including e-mails and telephone logs), or reports, that address or discuss your company's knowledge of, awareness of, understanding of, or employment or use of any of the trading strategies discussed in the Enron memoranda, or similar trading strategies, in the U.S. portion of the WSCC during the period 2000-2001. The scope of this request encompasses all material that address or discuss your company's knowledge or awareness of *other* companies' use of the trading strategies discussed in the Enron memoranda, or similar trading strategies, including, but not limited to: (i) offers by such other companies to join in transactions related to such trading strategies, regardless of whether such offers were declined or accepted; and (ii) possible responses by your companies to other companies' use of such trading strategies. To the extent that you wish to make a claim of privilege with respect to any responsive material, please provide an index of each of those materials, which includes the date of the each individual document, its title, its recipient(s) and its sender(s), a summary of the contents of the document, and the basis of the claim of privilege.

76. **In response to Part II.B. of the Data Request, the Company states: See the response to Part III.B., set forth in paragraphs 81-88, below.**

77. In the course of the investigation to prepare the Company's response to the Data Request, while we did not identify any physical materials, a memorandum of interview was prepared by our outside counsel that summarizes apparently significant information concerning Enron, to wit: a current PacifiCorp employee advises that while employed at Enron before March 2001, Enron traders engaged in the following trading strategies described in the Data Request: Non-Firm Export, Death Star, Load Shift, Fat Boy and Ricochet. We respectfully assert the attorney-client and work-product privileges for the May 18, 2002, memorandum of that interview and advise for purposes of a privilege log that the interview occurred on May 17, 2002.

PacifiCorp's Response Concerning Part III of the Data Request

78. As its Part III of the Data Request, Requests for Other Information, the Commission states:

> A. On page 2 of the December 8, 2000, Enron memorandum, the authors allege that traders have learned to build in under-scheduling of energy into their models and forecasts. State whether your company built under-scheduling into any of its models or forecasts during the period 2000-2001, and provide a narrative description of such activity. Provide copies of all such models or forecasts prepared by or relied on by your company during the period 2000-2001 that had under-scheduling built into them.

79. **In response to Part III.A. of the Data Request, the Company states: Denied.**

80. As its Part III of the Data Request, Requests for Other Information, the Commission states:

> B. Refer to the discussion of the trading strategy described as "**Ricochet**" in the Enron memoranda. State whether your company purchased energy from, or sold energy to, any Enron company, including Portland General Electric Company, as part of a "**Ricochet**" (or megawatt laundering) transaction during the period 2000-2001. Provide complete details as to such transactions, including the dates of the transactions; the names, titles, and telephone numbers of the traders at your company who engaged in such transactions; the prices at which your company bought and sold such energy (on a per transaction basis); the volumes bought and sold (on a per transaction basis); delivery points; and all corresponding schedules.

81. **In response to Part III.B. of the Data Request, the Company states: PacifiCorp was an intermediary in "Ricochet" transactions with Enron. Attached hereto as Exhibit 3 are documents responsive to the Commission's request; see also Exhibit 8A. The Company cannot be fully responsive to this request in the limited time allotted to gather relevant documentation. The Company identified a five-month period in 2000 that reflects the most likely period in which PacifiCorp may have been an intermediary in "Ricochet" transactions. The Company's investigation uncovered the transactions described in paragraphs 82-84. The Company is prepared to continue the process of collection on this matter and submit additional material, if the Commission so directs.**

82. In a limited number of cases, PacifiCorp entered into a buy and sell transaction with a single counterparty at a single interface for a small fee. PacifiCorp was not the entity initiating the ricochet; rather, it acted as the intermediary for these transactions. Based on a search of the trading logs from July 2000 through November 2000, there were approximately 767 transactions (for a total of 40,376 MWhs) identified in which PacifiCorp acted as an intermediary for a purchase and sale with a third party and earned a small fee. These trading logs are attached hereto as Exhibit 4. It should be noted that in the Requested Period the number of total transactions completed by PacifiCorp in the WSCC was approximately 45,000.

83. Attached hereto as Exhibit 5 is a sampling of audio taped trading transactions for the period July 2000 through November 2000. Attached as Exhibit 6 is an index of the sampling of audio taped trading transactions.

84. The counterparties in these transactions were Aquila Inc., Enron Power Marketing Inc. ("EPMI"), Sempra, and Williams Energy Services Company. The transactions initially appeared no different from PacifiCorp's buy-sell transactions which use PacifiCorp's

transmission system. However, as the number of these transactions increased, the fact that they were limited to a single point of delivery became increasingly apparent, and there was a growing concern that the transactions might have elements of megawatt laundering. By mid-November 2000, PacifiCorp instructed its real time personnel and advised counterparties that it would no longer facilitate such transactions. Instead, PacifiCorp indicated it would consider proposals for two separate transactions, *i.e.*, a separate bid price (the price at which PacifiCorp would purchase the energy) and a separate ask price (the price at which PacifiCorp would sell the energy). By offering to engage only in two separate, unbundled transactions, each transaction became a separate, independent obligation of PacifiCorp and its counterparty, and the decision to engage in either transaction required its own independent economic evaluation. PacifiCorp's bid and ask prices were based on the prices at which PacifiCorp would otherwise buy or sell energy in the market consistent with its resource guidelines. After PacifiCorp advised counterparties of its unwillingness to engage in such bundled buy-sell transactions at an interface with CAL-ISO, the requests for such transactions diminished markedly. Of course, for any transaction where PacifiCorp bought from a counterparty at an interface with the CAL-ISO and sold to the same (or another) entity at an interface outside of the CAL-ISO, PacifiCorp would have no indication where such energy was ultimately consumed. These transactions were also based on prices at which PacifiCorp would otherwise purchase or sell energy in the market consistent with its resources guidelines.

85. On May 15, 2002, PacifiCorp received from Enron a copy of an email apparently from an Enron employee (the "Enron Email"), a copy of which is attached hereto as Exhibit 7. The Enron Email does not bear a date and was extensively redacted. PacifiCorp had not seen the Enron Email before receiving it on May 15, 2002. Although the Company cannot be certain,

because of the uncertain date of the Enron Email and the redactions, it appears that it refers to a "PacifiCorp Transmission Transaction," as described in paragraph 60 above.

86. The Enron Email appears to describe a multi-party agreement to move energy in the following manner: (a) over the COTP to a point inside California, (b) back to COB on the PACI, and (c) transferred from the PACI (at the Malin substation) to the COTP (at the Captain Jack substation) in a buy-sell transaction arranged with PacifiCorp.

87. Company personnel recall that the City of Redding asked PacifiCorp in or about April 2000 if it would assist it from time to time to move energy over the COTP in northern California that connects at the Captain Jack substation. Since that proposal was for a common industry transaction, PacifiCorp agreed to engage in the transaction for a small fee that was subject to change by PacifiCorp. Company personnel do not recall being aware in advance that Enron would be part of such transactions, or that PacifiCorp would be part of what is described in the Enron Email as a "virtual loop." Nor do they recall being "on board" with a transaction that was designed to benefit Enron.

88. The Company has located two transactions that appear to have been made with the City of Redding according to the agreement described above. Company personnel recall that the City of Redding appears to have discontinued use of PacifiCorp's service when PacifiCorp slightly increased its fee as a commercial matter. Attached hereto as Exhibit 8A are responsive emails. Attached hereto as Exhibit 8B are copies of the long-term power purchase agreements between PacifiCorp and City of Redding. Attached hereto as Exhibit 8C are trading logs dated May 6, 2000 and June 22, 2000, involving transactions with the City of Redding.

The Process of Producing PacifiCorp's Response

89. Immediately upon receiving the Data Request, I joined with other responsible officials of the Company to plan collection of the oral information, documents and data that may be responsive to the Data Request. We formed a team to locate, review and analyze the material available in the time allowed for responding to the Data Request.

90. The team interviewed personnel likely to have responsive information and collected documents and electronic data that might provide responsive information.

91. The documents and data requested by the Data Request are very extensive. They include handwritten notes of traders, handwritten notes of transactions, electronic data regarding transactions, audio tapes of trading conversations, and other documents and data drawn from the Company's data bases relating to trading transactions.

92. Those documents and data are not organized or searchable in a manner that facilitates prompt production of all the information responsive to the Data Request. As a consequence, reliable evaluation and analysis of the available materials required application of the knowledge of a limited number of personnel within the Company. These people were asked to analyze the data in each case where their knowledge, understanding or experience would provide reliable and expeditious information that might be responsive to the Data Request.

93. Particularly considering the foregoing, the Company determined first to seek the first-hand knowledge and recollection of personnel who engaged in trading activity, supervised trading activity, or performed accounting or similar functions relating to trading energy during the Requested Period by conducting numerous interviews. The interviews provided the most reliable and expeditious identification of documents and electronic data that might be responsive

to the Data Request. The documents and data that appeared most responsive to this Data Request were then located and collected.

94. The investigative team could not review the entirety of the documents and data identified during the interviews. Where it appeared that certain segments of material were particularly relevant to responding to the Data Request, and where the material was too voluminous to permit examination of every potentially relevant item or passage, the investigative team adopted an approach of selective sampling in order to obtain an understanding of the probable content of the entire volume of material.

95. In searching for potentially relevant emails, PacifiCorp purchased search software that was used to scan all emails transmitted by or from PacifiCorp trading personnel during the Requested Period. A copy of the protocol for using this search software to respond to the Data Request is attached hereto as Exhibit 9. As of May 21, 2002, using a search for the phrases (including variations thereof) "deathstar," "get shorty," "ricochet," "fat boy, " "flipping," and "megawatt laundering," which phrases were considered most relevant to the Data Request, this software reviewed over 700,000 emails and generated approximately 25 positive hits, each of which was reviewed by the investigative team. The responsive emails are attached as Exhibits 3 and 8A. The remaining emails were deemed non-responsive because of benign uses of the word "flip" or its variants (by far the most prevalent term used in the positive hits) or because the terms appeared in trade publications attached to the emails. An expanded search including approximately 45 possibly relevant terms was conducted, resulting in approximately 13,600 emails with positive hits.[8] Because a narrow sampling of the large universe of email hits has

[8] In order to expedite the search, emails for both PacifiCorp and its affiliate, PPM, were scanned. Accordingly, the number of hits includes records for both such organizations. The search did not include all employees of PacifiCorp or PPM, but was conducted on the records of approximately 90 employees deemed most likely to have information relevant to the Data Request.

indicated that many of the emails will not contain any information responsive to the Data Request, it will be necessary to review each one of the selected emails to locate all responsive items. This effort would take a number of months to complete with available personnel. Based on the limited number of relevant documents produced by the search of the most potentially relevant terms, the Company does not believe that a complete review of records or a broader search will result in information that would be material to the Commission's inquiry. However, the Company is prepared to move forward with the search should the Commission so direct.

96. Through my active participation in the process of collecting the information to respond to the Data Request, I am familiar with both the oral and documentary material that the investigative team has gathered.

97. In consideration of all of the above, the nature and extent of the information and documents sought in the Data Request, the limited time allowed for response and the Company's efforts to respond to the Data Request within that time, the Company has diligently conducted a thorough investigation into the trading activities of its employees and agents, including those of its affiliates and subsidiaries, in the United States portion of the WSCC during the Requested Period.

I, Stanley K. Watters, hereby certify that, in consideration of the nature and extent of the information and documents sought in the Data Request, the limited time allowed for response and the Company's efforts to respond to the Data Request within that time, the information provided in, and the exhibits provided pursuant to, this affidavit constitute a response that is true and accurate to the best of my knowledge, information, and belief formed, after a thorough investigation that was diligently conducted, under my supervision and control, into the trading activities of the Company's employees and agents, excluding those of its affiliates[9] and subsidiaries, in the United States portion of the WSCC during the Requested Period.

Stanley K. Watters

Subscribed and sworn to before me, this 22nd day of May, 2002.

My Commission expires: Nov 2, 2003

OFFICIAL SEAL
JULIE L HENSEL
NOTARY PUBLIC–OREGON
COMMISSION NO. 328763
MY COMMISSION EXPIRES NOV 2, 2003

[9] PacifiCorp did not conduct an investigation into the trading activities of its affiliate, PPM, because PPM undertook a separate investigation and is responding to the Commission's Data Request separately. See also n.1.

EXHIBITS TO THE AFFIDAVIT OF STANLEY K. WATTERS

SUBMITTED ON BEHALF OF PACIFICORP

1. Data Request dated May 8, 2002 issued by the Commission in Docket No. PA02-2-000

2A. Enron memorandum, dated December 6, 2000

2B. Enron memorandum, dated December 8, 2000

2C. Brobeck memorandum, undated

3. Miscellaneous emails

4. Trading Logs (July 2000 through November 2000)

5. Sampling of audio taped trading transactions (taken from period during July 2000 through November 2000)

6. Index of sampling of audio taped trading transactions

7. Enron Email

8A. Gary Eldridge and Paul Kroger Emails

8B. Long Term Power Purchase Agreements between PacifiCorp and City of Redding

8C. Trading logs for May 6, 2000 and June 22, 2000, transactions with City of Redding

9. Protocol used for searching emails

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF MARKETS, TARIFFS AND RATES
Washington, DC 20426

Dated: May 8, 2002

To: Sellers of Wholesale Electricity and/or Ancillary Services to the California Independent System Operator and/or the California Power Exchange During the Years 2000-2001 (Listed on Attachment A)

From: Donald J. Gelinas
Associate Director
Office of Markets, Tariffs and Rates

Re: **Fact-Finding Investigation of Potential Manipulation of Electric and Natural Gas Prices, Docket No. PA02-2-000**

Pursuant to the Commission's order issued February 13, 2002, in the above-referenced proceeding, you are hereby ordered to respond to the following data request, including requests for admissions with respect to certain trading strategies that your company may have engaged in. The data request is being issued to all sellers of wholesale electricity and/or ancillary services to the California Independent System Operator and/or the California Power Exchange during the period 2000-2001. The data request is being posted on the Commission's web page for Docket No. PA02-2-000 and, in addition, is being sent by certified mail to those representatives of the companies designated by the companies as contacts for sellers of market-based rates or as corporate officials.

Your company's response is to be signed under oath, in the form of an affidavit, by your company's president, chief executive officer, general counsel, or a corporate officer of comparable authority and responsibility, after the company, under the supervision and control of that individual, has diligently conducted a thorough investigation into the trading activities of the company's employees and agents, including those of its affiliates[1] and subsidiaries, in the U.S. portion of the Western Systems Coordinating Council

[1] An "affiliate" is defined as stated in 18 C.F.R. § 161.2 (2001); *see* The Power Company of America, L.P., 79 FERC ¶ 61,067 at 61,325-12 (1997) (applying definition of "affiliate" in the Commission's Standards of Conduct for Interstate Pipelines with Marketing Affiliates to non-EWG public utilities).

(WSCC) during the years 2000 and 2001.[2] **Your response is due on or before May 22, 2002.**

Your company's failure to respond in a timely and complete fashion may result in enforcement action, including the issuance of an order directing a public utility to show cause why the Commission should not revoke the public utility's authority to sell wholesale electricity and/or ancillary services at market-based rates.

I. Requests for Admissions

For the purposes of the following requests for admissions, refer to the three Enron Corporation memoranda that are attachments to the follow-up data request to Enron dated May 6, 2002. That data request and the three memoranda are posted on the Commission's web page for Docket No. PA02-2-000.

The two Enron memoranda dated December 6, 2000, and December 8, 2000, describe in detail certain trading strategies engaged in during the years 2000 and 2001 by Enron traders and, allegedly, traders of other companies active in wholesale electricity and ancillary services markets in the West and particularly in California. According to the memoranda, these trading strategies generally fall into two categories.

The first is described as "**inc-ing load**" into the California Independent System Operator's (Cal ISO) real time market. Here, a company artificially increases load on a schedule it submits to the Cal ISO with a corresponding amount of generation. The company then dispatches the generation it scheduled, which is in excess of its actual load. This, in turn, results in the Cal ISO paying the company for the excess generation. Scheduling coordinators that serve load in California were able to use this trading strategy to include generation of other sellers (*e.g.*, Powerex and Puget Sound Energy).

The second is described as "**relieving congestion**" and involves a company first creating congestion in the California Power Exchange's (Cal PX) market, and then "relieving" such congestion in the real time market. This trading strategy is accomplished

[2]At a minimum, the signatory to the affidavit must state that he or she certifies that the information and documents provided constitute a response that is true and accurate to the best of that individual's knowledge, information, and belief formed, after a thorough investigation was diligently conducted, under the supervision and control of that individual, into the trading activities of the company's employees and agents, including those of its affiliates and subsidiaries, in the U.S. portion of the WSCC during the years 2000 and 2001.

through such actions as reducing schedules or scheduling energy in the opposite direction of a constraint (counterflows), for which the Cal ISO will make payment to the company.

The December 6, 2000, and December 8, 2000, Enron memoranda then outline ten "representative trading strategies" that employ "**inc-ing load**" and "**relieving congestion.**"[3] The following requests for admissions describe certain activities, using the names applied to the "representative trading strategies" in the Enron memoranda. While you are to refer to the Enron memoranda, you must respond with respect to the description of each activity contained below and, as applicable, provide the specified details as to each activity.

A. 1. Admit or Deny: The company engaged in activity referred to in the Enron memoranda as "**Export of California Power**" during the period 2000-2001, in which the company buys energy at the Cal PX to export outside of California in order to take advantage of the price spread between California markets (which were capped) and uncapped markets outside California.

2. If you so admit, provide complete details as to all transactions your company engaged in as part of this activity, including the dates of all purchases and sales of energy and/or ancillary services, counter-parties to the transactions, prices and volumes, delivery points, and corresponding Cal ISO schedules. Also, provide all documents that refer or relate to the activity described immediately above.

B. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Non-Firm Export**" during the period 2000-2001, in which the company gets a counterflow (scheduling energy in the opposite direction of a constraint) congestion payment from the Cal ISO by scheduling non-firm energy from a point in California to a control area outside of California, and cutting the non-firm energy after it receives such payment.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, congestion payments received, corresponding Cal ISO schedules, counter parties, and delivery points. Also, provide all documents that refer or relate to the activity described immediately above.

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[3]The two dated memoranda list as number two both the **Non-firm Export** and **Death Star** strategies; thus, there are in fact a total of ten strategies listed, not nine.

C. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Death Star**" during the period 2000-2001, in which the company schedules energy in the opposite direction of congestion (counterflow), but no energy is actually put onto the grid or taken off of the grid. This allows the company to receive congestion payments from the Cal ISO.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, all transmission and energy schedules, the counter parties, all congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

D. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Load Shift**" during the period 2000-2001. This variant of "relieving congestion" involves submitting artificial schedules in order to receive inter-zonal congestion payments . The appearance of congestion is created by deliberately over-scheduling load in one zone (*e.g.*, NP-15), and under-scheduling load in another, connecting zone (*e.g.*, SP-15); and shifting load from a congested zone to the less congested zone, thereby earning congestion payments for reducing congestion.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, all schedules of load by zone, and congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above

E. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Get Shorty**" during the period 2000-2001, also known as "paper trading" of ancillary services in which it: (i) sells ancillary services in the Day-ahead market; and (ii) the next day, in the real-time market, the company "zeros out" the ancillary services by cancelling the commitment to sell and buying ancillary services in the real-time market to cover its position. The phrase "paper trading" is used because the seller does not actually have the ancillary services to sell.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this trading strategy, including the dates of all transactions; prices and volumes for sales of ancillary services in the

Day-ahead market; the cancellation of such sales, prices and volumes for the purchase of ancillary services in the real-time market to cover the company's position; and corresponding schedules. Also, provide all documents that refer or relate to the activity described immediately above.

F. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Wheel Out**" during the period 2000-2001. Knowing that an intertie is completely constrained (*i.e.*, its capacity is set at zero), or that a line is out of service, the company schedules a transmission flow over the facility. The company also knows that the schedule will be cut and it will receive a congestion payment without actually having to send energy over the facility.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, corresponding schedules, counter parties, and congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

G. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Fat Boy**" during the period 2000-2001 in which the company artificially increases load on the schedule it submits to the Cal ISO with a corresponding amount of generation. The company then dispatches the generation its schedules, which is in excess of its actual load. This results in the Cal ISO paying the company for the excess generation. Scheduling coordinators that serve load in California may be able to use this activity to includes the generation of other sellers.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates of all transactions, corresponding schedules, and payments from the Cal ISO for excess generation (including both price and volumes). Also, provide all documents that refer or relate to the activity described immediately above.

H. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Ricochet**," also known as "megawatt laundering," during the period 2000-2001, in which the company: (i) buys energy from the Cal PX and exports to another entity, which charges a small fee; and (ii) the first company resells the energy back to the Cal ISO in the real-time market.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates for all transactions, names of counter parties and whether they were affiliates, the fees charged, prices and volumes for energy that was bought and then re-sold. Also, provide all documents that refer or relate to the activity described immediately above.

I. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Selling Non-firm Energy as Firm Energy**" during the period 2000-2001, in which the company sells or resells what is actually non-firm energy to the Cal PX, but claims that it is "firm" energy. This allows the company to receive payment from the Cal ISO for ancillary services that it claims to be providing, but does not in fact provide.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates for all transactions, prices and volumes, and corresponding schedules. Also, provide all documents that refer or relate to the activity described immediately above.

J. 1. Admit or Deny: The company engaged in activity described in the Enron memoranda as "**Scheduling Energy to Collect Congestion Charge II**" during the period 2000-2001, in which the company: (i) schedules a counterflow even though it does not have any available generation; (ii) in real time, the Cal ISO charges the company for each MW that it was short; and (iii) the company collects a congestion payment associated with the counterflow scheduled. This activity is profitable whenever the congestion payment is greater than the charge associated with the energy that was not delivered.

2. If you so admit, provide complete details as to all transactions that your company engaged in as part of this activity, including the dates for all transactions, corresponding schedules, prices and volumes, and congestion payments received. Also, provide all documents that refer or relate to the activity described immediately above.

K. 1. Admit or Deny: The company engaged in any activity during the period 2000-2001 that is a variant of any of the above-described activities or that is a variant of, or uses the activities known as, "**inc-ing load**" or "**relieving congestion**," as described above.

2. If you so admit, provide a narrative description of each specific time in which the company engaged in such activity and provide complete details of those transactions, including the dates of the transactions, counter parties, prices and volumes bought or sold, corresponding schedules, and any congestion payments received. Also, provide all documents that refer to or relate to such activities.

II. Requests for Production of Documents

A. Provide copies of all communications or correspondence, including e-mail messages, instant messages, or telephone logs, between your company and any other company (including your affiliates or subsidiaries) with respect to all of the trading strategies discussed in the Enron memoranda (both the ten "representative trading strategies" as well as "**inc-ing load**" and "**relieving congestion**"). This request encompasses all transactions conducted as part of such trading strategies engaged in by your company and the other company in the U.S. portion of the WSCC during the period 2000-2001.

B. Provide copies of all material, including, but not limited to, opinion letters, memoranda, communications (including e-mails and telephone logs), or reports, that address or discuss your company's knowledge of, awareness of, understanding of, or employment or use of any of the trading strategies discussed in the Enron memoranda, or similar trading strategies, in the U.S. portion of the WSCC during the period 2000-2001. The scope of this request encompasses all material that address or discuss your company's knowledge or awareness of *other* companies' use of the trading strategies discussed in the Enron memoranda, or similar trading strategies, including, but not limited to: (i) offers by such other companies to join in transactions related to such trading strategies, regardless of whether such offers were declined or accepted; and (ii) possible responses by your companies to other companies' use of such trading strategies. To the extent that you wish to make a claim of privilege with respect to any responsive material, please provide an index of each of those materials, which includes the date of the each individual document, its title, its recipient(s) and its sender(s), a summary of the contents of the document, and the basis of the claim of privilege.

III. Requests for Other Information

A. On page 2 of the December 8, 2000, Enron memorandum, the authors allege that traders have learned to build in under-scheduling of energy into their models and forecasts. State whether your company built under-scheduling into any of its models or forecasts during the period 2000-2001, and provide a narrative

description of such activity. Provide copies of all such models or forecasts prepared by or relied on by your company during the period 2000-2001 that had under-scheduling built into them.

B. Refer to the discussion of the trading strategy described as "**Ricochet**" in the Enron memoranda. State whether your company purchased energy from, or sold energy to, any Enron company, including Portland General Electric Company, as part of a "**Ricochet**" (or megawatt laundering) transaction during the period 2000-2001. Provide complete details as to such transactions, including the dates of the transactions; the names, titles, and telephone numbers of the traders at your company who engaged in such transactions; the prices at which your company bought and sold such energy (on a per transaction basis); the volumes bought and sold (on a per transaction basis); delivery points; and all corresponding schedules.

Attachment A

Sellers of Wholesale Electricity and/or Ancillary Services to the California Independent System Operator and/or the California Power Exchange During 2000-2001

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STOEL RIVES LLP

MEMORANDUM

December 6, 2000

TO: RICHARD SANDERS

FROM: CHRISTIAN YODER AND STEPHEN HALL

RE: Traders' Strategies in the California Wholesale Power Markets/ ISO Sanctions

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This memorandum analyzes certain trading strategies that Enron's traders are using in the California wholesale energy markets. Section A explains two popular strategies used by the traders, "inc-ing" load and relieving congestion. Section B describes and analyzes other strategies used by Enron's traders, some of which are variations on "inc-ing" load or relieving congestion. Section C discusses the sanction provisions of the California Independent System Operator ("ISO") tariff.

A. The Big Picture

1. "Inc-ing" Load Into The Real Time Market

One of the most fundamental strategies used by the traders is referred to as "'inc-ing' load into the real time market." According to one trader, this is the 'oldest trick in the book' and, according to several of the traders, it is now being used by other market participants.

To understand this strategy, it is important to understand a little about the ISO's real-time market.[1] One responsibility of the ISO is to balance generation (supply) and loads (demand) on the California transmission system. During its real-time energy balancing function the ISO pays/charges market participants for increasing/decreasing their generation. The ISO pays/charges market participants under two schemes: "instructed deviations" and "uninstructed deviations." Instructed deviations occur when the ISO selects supplemental energy bids from generators offering to supply energy to the market in real time in response to ISO instructions. Market participants that increase their generation in response to instructions ("instructed deviation") from the ISO are paid the "inc" price. Market participants that increase their

[1] The "real-time" energy market is also known as the imbalance energy market. The imbalance energy market can be further subdivided into the (1) supplemental energy or instructed deviation market and (2) the ex post market or uninstructed deviation market.

generation without an instruction from the ISO (an "uninstructed deviation") are paid the ex post "dec" price. In real-time, the ISO issues instructions and publishes ex post prices at ten-minute intervals.

"'Inc-ing load' into the real-time market" is a strategy that enables Enron to send excess generation to the imbalance energy market as an uninstructed deviation. To participate in the imbalance energy market it is necessary to have at least 1 MW of load. The reason for this is that a generator cannot schedule energy onto the grid without having a corresponding load. The ISO requires scheduling coordinators to submit balanced schedules; i.e., generation must equal load. So, if load must equal generation, how can Enron end up with excess generation in the real-time market?

The answer is to artificially increase ("inc") the load on the schedule submitted to the ISO. Then, in real-time, Enron sends the generation it scheduled, but does not take as much load as scheduled. The ISO's meters record that Enron did not draw as much load, leaving it with an excess amount of generation. The ISO gives Enron credit for the excess generation and pays Enron the dec price multiplied by the number of excess megawatts. An example will demonstrate this. Enron will submit a day-ahead schedule showing 1000 MW of generation scheduled for delivery to Enron Energy Services ("EES"). The ISO receives the schedule, which says "1000 MW of generation" and "1000 MW of load." The ISO sees that the schedule balances and, assuming there is no congestion, schedules transmission for this transaction. In real-time, Enron sends 1000 MW of generation, but Enron Energy Services only draws 500 MW. The ISO's meters show that Enron made a net contribution to the grid of 500 MW, and so the ISO pays Enron 500 times the dec price.

The traders are able to anticipate when the dec price will be favorable by comparing the ISO's forecasts with their own. When the traders believe that the ISO's forecast underestimates the expected load, they will inc load into the real time market because they know that the market will be short, causing a favorable movement in real-time ex post prices. Of course, the much-criticized strategy of California's investor-owned utilities ("IOUs") of underscheduling load in the day-ahead market has contributed to the real-time market being short. The traders have learned to build such underscheduling into their models, as well.

Two other points bear mentioning. Although Enron may have been the first to use this strategy, others have picked up on it, too. I am told this can be shown by looking at the ISO's real-time metering, which shows that an excess amount of generation, over and above Enron's contribution, is making it to the imbalance market as an uninstructed deviation. Second, Enron has performed this service for certain other customers for which it acts as scheduling coordinator. The customers using this service are companies such as Powerex and Puget Sound Energy ("PSE"), that have generation to sell, but no native California load. Because Enron has native California load through EES, it is able to submit a schedule incorporating the generation of a generator like Powerex or PSE and balance the schedule with "dummied-up" load from EES.

Interestingly, this strategy appears to benefit the reliability of the ISO's grid. It is well known the California IOUs have systematically underscheduled their load in the PX's Day-

Ahead market. By underscheduling their load into the Day-Ahead market, the IOUs have caused the ISO to have to call on energy in real time in order to keep the transmission system in balance. In other words, the transmission grid is short energy. By deliberately overscheduling load, Enron has been offsetting the ISO's real time energy deficit by supplying extra energy that the ISO needs. Also, it should be noted that in the ex post market Enron is a "price taker," meaning that they are not submitting bids or offers, but are just being paid the value of the energy that the ISO needs. If the ISO did not need the energy, the dec price would quickly drop to $0. So, the fact that Enron was getting paid for this energy shows that the ISO needed the energy to balance the transmission system and offset the IOU's underscheduling (if those parties own Firm Transmission Rights ("FTR") over the path).

2. Relieving Congestion

The second strategy used by Enron's traders is to relieve system-wide congestion in the real-time market, which congestion was created by Enron's traders in the PX's Day Ahead Market. In order to relieve transmission congestion (i.e., the energy scheduled for delivery exceeds the capacity of the transmission path), the ISO makes payments to parties that either schedule transmission in the opposite direction ("counterflow payments") or that simply reduce their generation/load schedule.

Many of the strategies used by the traders involve structuring trades so that Enron gets paid the congestion charge. Because the congestion charges have been as high as $750/MW, it can often be profitable to sell power at a loss simply to be able to collect the congestion payment.

B. Representative Trading Strategies

The strategies listed below are examples of actual strategies used by the traders, many of which utilize the two basic principles described above. In some cases, the strategies are identified by the nicknames that the traders have assigned to them. In some cases, i.e., "Fat Boy," Enron's traders have used these nicknames with traders from other companies to identify these strategies.

1. Export of California Power

   a. As a result of the price caps in the PX and ISO (currently $250), Enron has been able to take advantage of arbitrage opportunities by buying energy at the PX for export outside California. For example, yesterday (December 5, 2000), prices at Mid-C peaked at $1200, while California was capped at $250. Thus, traders could buy power at $250 and sell it for $1200.

   b. This strategy appears not to present any problems, other than a public relations risk arising from the fact that such exports may have contributed to California's declaration of a Stage 2 Emergency yesterday.

2. "Non-firm Export"

a. The goal is to get paid for sending energy in the opposite direction as the constrained path (counterflow congestion payment). Under the ISO's tariff, scheduling coordinators that schedule energy in the opposite direction of the congestion on a constrained path get paid the congestion charges, which are charged to scheduling coordinators scheduling energy in the direction of the constraint. At times, the value of the congestion payments can be greater than the value of the energy itself.

b. This strategy is accomplished by scheduling non-firm energy for delivery from SP-15 or NP-15 to a control area outside California. This energy must be scheduled three hours before delivery. After two hours, Enron gets paid the counterflow charges. A trader then cuts the non-firm power. Once the non-firm power is cut, the congestion resumes.

c. The ISO posted notice in early August prohibiting this practice. Enron's traders stopped this practice immediately following the ISO's posting.

d. The ISO objected to the fact that the generators were cutting the non-firm energy. The ISO would not object to this transaction if the energy was eventually exported.

Apparently, the ISO has heavily documented Enron's use of this strategy. Therefore, this strategy is the more likely than most to receive attention from the ISO.

2. "Death Star"

a. This strategy earns money by scheduling transmission in the opposite direction of congestion; i.e., schedule transmission north in the summertime and south in the winter, and then collecting the congestion payments. No energy, however, is actually put onto the grid or taken off.

b. For example, Enron would first import non-firm energy at Lake Mead for export to the California-Oregon border ("COB"). Because the energy is traveling in the opposite direction of a constrained line, Enron gets paid for the counterflow. Enron also avoids paying ancillary service charges for this export because the energy is non-firm, and the ISO tariff does not require the purchase of ancillary services for non-firm energy.

c. Second, Enron buys transmission from COB to Lake Mead at tariff rates to serve the import. The transmission line from COB to Lake Mead is outside of the ISO's control area, so the ISO is unaware that the same energy being exported from Lake Mead is simultaneously being imported into Lake Mead. Similarly, because the COB to Lake Mead line is outside the ISO's control area, Enron is not subject to payment of congestion charges because transmission charges for the COB to Lake Mead line are assessed based on imbedded costs.

d. The ISO probably cannot readily detect this practice because the ISO only sees what is happening inside its control area, so it only sees half of the picture.

e. The net effect of these transactions is that Enron gets paid for moving energy to relieve congestion without actually moving any energy or relieving any congestion.

3. "Load Shift"

a. This strategy is applied to the Day-Ahead and the real-time markets.

b. Enron shifts load from a congested zone to a less congested zone, thereby earning payments for reducing congestion, i.e., not using our FTRs on a constrained path.

c. This strategy requires that Enron have FTRs connecting the two zones.

d. A trader will overschedule load in one zone, i.e., SP-15, and underschedule load in another zone, i.e., NP-15.

Such scheduling will often raise the congestion price in the zone where load was overscheduled.

The trader will then "shift" the overscheduled "load" to the other zone, and get paid for the unused FTRs. The ISO pays the congestion charge (if there is one) to market participants that do not use their FTRs. The effect of this action is to create the appearance of congestion through the deliberate overstatement of loads, which causes the ISO to charge congestion charges to supply scheduled for delivery in the congested zone. Then, by reverting back to its true load in the respective zones, Enron is deemed to have relieved congestion, and gets paid by the ISO for so doing.

e One concern here is that by knowingly increasing the congestion costs, Enron is effectively increasing the costs to all market participants in the real time market.

f. Following this strategy has produced profits of approximately $30 million for FY 2000.

4. "Get Shorty"

a. Under this strategy, Enron sells ancillary services in the Day-ahead market.

b. Then, the next day, in the real-time market, a trader "zeroes out" the ancillary services, i.e., cancels the commitment and buys ancillary services in the real-time market to cover its position.

c. The profit is made by shorting the ancillary services, i.e., sell high and buy back at a lower price.

d. One concern here is that the traders are applying this strategy without having the ancillary services on standby. The traders are careful, however, to be sure to buy services right at 9:00 a.m. so that Enron is not actually called upon to provide ancillary services. However, once, by accident, a trader inadvertently failed to cover, and the ISO called on those ancillary services.

e. This strategy might be characterized as "paper trading," because the seller does not actually have the ancillary services to sell. FERC recently denied Morgan Stanley's request to paper trade on the New York ISO.

The ISO tariff does provide for situations where a scheduling coordinator sells ancillary services in the day ahead market, and then reduces them in the day-of market. Under these circumstances, the tariff simply requires that the scheduling coordinator replace the capacity in the hour-ahead market. ISO Tariff, SBP 5.3, *Buy Back of Ancillary Services*.

f. The ISO tariff requires that schedules and bids for ancillary services identify the specific generating unit or system unit, or in the case of external imports, the selling entity. As a consequence, in order to short the ancillary services it is necessary to submit false information that purports to identify the source of the ancillary services.

5. "Wheel Out"

a. This strategy is used when the interties are set to zero, i.e., completely constrained.

b. First, knowing that the intertie is completely constrained, Enron schedules a transmission flow through the system. By so doing, Enron earns the congestion charge. Second, because the line's capacity is set to "0," the traders know that any power scheduled to go through the inter-tie will, in fact be cut. Therefore, Enron earns the congestion counterflow payment without having to actually send energy through the intertie.

c. As a rule, the traders have learned that money can be made through congestion charges when a transmission line is out of service because the ISO will never schedule an energy delivery because the intertie is constrained.

6. "Fat Boy"

a. This strategy is described above in section A (1).

7. "Ricochet"

a. Enron buys energy from the PX in the Day Of market, and schedules it for export. The energy is sent out of California to another party, which charges a small fee per MW, and then Enron buys it back to sell the energy to the ISO real-time market.

b. The effect of this strategy on market prices and supply is complex. First, it is clear that Enron's intent under this strategy is solely to arbitrage the spread between the PX and the ISO, and not to serve load or meet contractual obligations. Second, Ricochet may increase the Market Clearing Price by increasing the demand for energy. (Increasing the MCP does not directly benefit Enron because it is *buying* energy from the PX, but it certainly affects other buyers, who must pay the same, higher price.) Third, Ricochet appears to have a neutral effect on supply, because it is returning the exported energy as an import. Fourth, the parties that pay Enron for supplying energy to the real time ex post market are the parties that underscheduled, or underestimated their load, i.e., the IOUs.

8. Selling Non-firm Energy as Firm Energy

a. The traders commonly sell non-firm energy to the PX as "firm." "Firm energy," in this context, means that the energy includes ancillary services. The result is that the ISO pays EPMI for ancillary services that Enron claims it is providing, but does not in fact provide.

b The traders claim that "everybody does this," especially for imports from the Pacific Northwest into California.

c At least one complaint was filed with the ISO regarding Enron's practice of doing this. Apparently, Arizona Public Service sold non-firm energy to Enron, which turned around and sold the energy to the ISO as firm. APS cut the energy flow, and then called the ISO and told the ISO what Enron had done.

9. Scheduling Energy To Collect the Congestion Charge II

a. In order to collect the congestion charges, the traders may schedule a counterflow even if they do not have any excess generation. In real time, the ISO will see that Enron did deliver the energy it promised, so it will charge Enron the inc price for each MW Enron was short. The ISO, however, still pays Enron the congestion charge. Obviously a loophole, which the ISO could close by simply failing to pay congestion charges to entities that failed to deliver the energy.

b. This strategy is profitable whenever the congestion charge is sufficiently greater than the price cap. In other words, since the ex post is capped at $250, whenever the congestion charge is greater than $250 it is profitable to schedule counterflows, collect the congestion charge, pay the ex post, and keep the difference.

C. ISO Tariff

The ISO tariff prohibits "gaming," which it defines as follows:

> "Gaming," or taking unfair advantage of the rules and procedures set forth in the PX or ISO Tariffs, Protocols or Activity Rules, or of transmission constraints in period in which exist substantial Congestion, to the detriment of the efficiency of, and of consumers in, the ISO Markets. "Gaming" may also include taking undue advantage of other conditions that may affect the availability of transmission and generation capacity, such as loop flow, facility outages, level of hydropower output or seasonal limits on energy imports from out-of-state, or actions or behaviors that may otherwise render the system and the ISO Markets vulnerable to price manipulation to the detriment of their efficiency." ISO Market Monitoring and Information Protocol ("MMIP"), Section 2.1.3.

The ISO tariff also prohibits "anomalous market behavior," which includes "unusual trades or transactions"; "pricing and bidding patterns that are inconsistent with prevailing supply and demand conditions"; and "unusual activity or circumstances relating to imports from or exports to other markets or exchanges." MMIP, Section 2.1.1 et seq.

Should it discover such activities, the ISO tariff provides that the ISO may take the following action:

1. Publicize such activities or behavior and its recommendations thereof, "*in whatever medium it believes most appropriate.*" MMIP, Section 2.3.2 (emphasis added).

2. The Market Surveillance Unit may *recommend* actions, including fines and suspensions, against specific entities in order to deter such activities or behavior. MMIP, Section 2.3.2.

3. With respect to allegations of gaming, the ISO may order ADR procedures to determine if a particular practice is better characterized as improper gaming or "legitimate aggressive competition." MMIP, Section 2.3.3.

4. In cases of "serious abuse requiring expeditious investigation or action" the Market Surveillance Unit shall refer a matter to the appropriate regulatory or antitrust enforcement agency. MMIP, Section 3.3.4.

5. Any Market Participant or interested entity may file a complaint with the Market Surveillance Unit. Following such complaint, the Market Surveillance Unit may "carry out any investigation that it considers appropriate as to the concern raised." MMIP, Section 3.3.5.

6. The ISO Governing Board may impose "such sanctions or penalties as it believes necessary and as are permitted under the ISO Tariff and related protocols approved by FERC; or it may refer the matter to such regulatory or antitrust agency as it sees fit to recommend the imposition of sanctions and penalties." MMIP, Section 7.3.

Reviewed for Privilege
Rev'r OH 1434 Bx 124063

STOEL RIVES LLP

MEMORANDUM

December 8, 2000

TO: RICHARD SANDERS

FROM: CHRISTIAN YODER AND STEPHEN HALL

RE: Traders' Strategies in the California Wholesale Power Markets/ ISO Sanctions

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CONFIDENTIAL: ATTORNEY/CLIENT PRIVILEGE/ATTORNEY WORK PRODUCT

This memorandum analyzes certain trading strategies that Enron's traders are using in the California wholesale energy markets. Section A explains two popular strategies used by the traders, "inc-ing" load and relieving congestion. Section B describes and analyzes other strategies used by Enron's traders, some of which are variations on "inc-ing" load or relieving congestion. Section C discusses the sanction provisions of the California Independent System Operator ("ISO") tariff.

A. The Big Picture

1. "Inc-ing" Load Into The Real Time Market

One of the most fundamental strategies used by the traders is referred to as "'inc-ing' load into the real time market." According to one trader, this is the 'oldest trick in the book' and, according to several of the traders, it is now being used by other market participants.

To understand this strategy, it is important to understand a little about the ISO's real-time market.[1] One responsibility of the ISO is to balance generation (supply) and loads (demand) on the California transmission system. During its real-time energy balancing function the ISO pays/charges market participants for increasing/decreasing their generation. The ISO pays/charges market participants under two schemes: "instructed deviations" and "uninstructed deviations." Instructed deviations occur when the ISO selects supplemental energy bids from generators offering to supply energy to the market in real time in response to ISO instructions. Market participants that increase their generation in response to instructions ("instructed deviation") from the ISO are paid the "inc" price. Market participants that increase their

[1] The "real-time" energy market is also known as the imbalance energy market. The imbalance energy market can be further subdivided into the (1) supplemental energy or instructed deviation market and (2) the ex post market or uninstructed deviation market.

generation without an instruction from the ISO (an "uninstructed deviation") are paid the ex post "dec" price. In real-time, the ISO issues instructions and publishes ex post prices at ten-minute intervals.

"'Inc-ing load' into the real-time market" is a strategy that enables Enron to send excess generation to the imbalance energy market as an uninstructed deviation. To participate in the imbalance energy market it is necessary to have at least 1 MW of load. The reason for this is that a generator cannot schedule energy onto the grid without having a corresponding load. The ISO requires scheduling coordinators to submit balanced schedules; i.e., generation must equal load. So, if load must equal generation, how can Enron end up with excess generation in the real-time market?

The answer is to artificially increase ("inc") the load on the schedule submitted to the ISO. Then, in real-time, Enron sends the generation it scheduled, but does not take as much load as scheduled. The ISO's meters record that Enron did not draw as much load, leaving it with an excess amount of generation. The ISO gives Enron credit for the excess generation and pays Enron the dec price multiplied by the number of excess megawatts. An example will demonstrate this. Enron will submit a day-ahead schedule showing 1000 MW of generation scheduled for delivery to Enron Energy Services ("EES"). The ISO receives the schedule, which says "1000 MW of generation" and "1000 MW of load." The ISO sees that the schedule balances and, assuming there is no congestion, schedules transmission for this transaction. In real-time, Enron sends 1000 MW of generation, but Enron Energy Services only draws 500 MW. The ISO's meters show that Enron made a net contribution to the grid of 500 MW, and so the ISO pays Enron 500 times the dec price.

The traders are able to anticipate when the dec price will be favorable by comparing the ISO's forecasts with their own. When the traders believe that the ISO's forecast underestimates the expected load, they will inc load into the real time market because they know that the market will be short, causing a favorable movement in real-time ex post prices. Of course, the much-criticized strategy of California's investor-owned utilities ("IOUs") of underscheduling load in the day-ahead market has contributed to the real-time market being short. The traders have learned to build such underscheduling into their models, as well.

Two other points bear mentioning. Although Enron may have been the first to use this strategy, others have picked up on it, too. I am told this can be shown by looking at the ISO's real-time metering, which shows that an excess amount of generation, over and above Enron's contribution, is making it to the imbalance market as an uninstructed deviation. Second, Enron has performed this service for certain other customers for which it acts as scheduling coordinator. The customers using this service are companies such as Powerex and Puget Sound Energy ("PSE"), that have generation to sell, but no native California load. Because Enron has native California load through EES, it is able to submit a schedule incorporating the generation of a generator like Powerex or PSE and balance the schedule with "dummied-up" load from EES.

Interestingly, this strategy appears to benefit the reliability of the ISO's grid. It is well known the California IOUs have systematically underscheduled their load in the PX's Day-

Ahead market. By underscheduling their load into the Day-Ahead market, the IOUs have caused the ISO to have to call on energy in real time in order to keep the transmission system in balance. In other words, the transmission grid is short energy. By deliberately overscheduling load, Enron has been offsetting the ISO's real time energy deficit by supplying extra energy that the ISO needs. Also, it should be noted that in the ex post market Enron is a "price taker," meaning that they are not submitting bids or offers, but are just being paid the value of the energy that the ISO needs. If the ISO did not need the energy, the dec price would quickly drop to $0. So, the fact that Enron was getting paid for this energy shows that the ISO needed the energy to balance the transmission system and offset the IOU's underscheduling (if those parties own Firm Transmission Rights ("FTR") over the path).

2. Relieving Congestion

The second strategy used by Enron's traders is to relieve system-wide congestion in the real-time market, which congestion was created by Enron's traders in the PX's Day Ahead Market. In order to relieve transmission congestion (i.e., the energy scheduled for delivery exceeds the capacity of the transmission path), the ISO makes payments to parties that either schedule transmission in the opposite direction ("counterflow payments") or that simply reduce their generation/load schedule.

Many of the strategies used by the traders involve structuring trades so that Enron gets paid the congestion charge. Because the congestion charges have been as high as $750/MW, it can often be profitable to sell power at a loss simply to be able to collect the congestion payment.

B. Representative Trading Strategies

The strategies listed below are examples of actual strategies used by the traders, many of which utilize the two basic principles described above. In some cases, the strategies are identified by the nicknames that the traders have assigned to them. In some cases, i.e., "Fat Boy," Enron's traders have used these nicknames with traders from other companies to identify these strategies.

1. Export of California Power

a. As a result of the price caps in the PX and ISO (currently $250), Enron has been able to take advantage of arbitrage opportunities by buying energy at the PX for export outside California. For example, yesterday (December 5, 2000), prices at Mid-C peaked at $1200, while California was capped at $250. Thus, traders could buy power at $250 and sell it for $1200.

b. This strategy appears not to present any problems, other than a public relations risk arising from the fact that such exports may have contributed to California's declaration of a Stage 2 Emergency yesterday.

2. "Non-firm Export"

a. The goal is to get paid for sending energy in the opposite direction as the constrained path (counterflow congestion payment). Under the ISO's tariff, scheduling coordinators that schedule energy in the opposite direction of the congestion on a constrained path get paid the congestion charges, which are charged to scheduling coordinators scheduling energy in the direction of the constraint. At times, the value of the congestion payments can be greater than the value of the energy itself.

b. This strategy is accomplished by scheduling non-firm energy for delivery from SP-15 or NP-15 to a control area outside California. This energy must be scheduled three hours before delivery. After two hours, Enron gets paid the counterflow charges. A trader then cuts the non-firm power. Once the non-firm power is cut, the congestion resumes.

c. The ISO posted notice in early August prohibiting this practice. Enron's traders stopped this practice immediately following the ISO's posting.

d. The ISO objected to the fact that the generators were cutting the non-firm energy. The ISO would not object to this transaction if the energy was eventually exported.

Apparently, the ISO has heavily documented Enron's use of this strategy. Therefore, this strategy is the more likely than most to receive attention from the ISO.

2. "Death Star"

a. This strategy earns money by scheduling transmission in the opposite direction of congestion; i.e., schedule transmission north in the summertime and south in the winter, and then collecting the congestion payments. No energy, however, is actually put onto the grid or taken off.

b. For example, Enron would first import non-firm energy at Lake Mead for export to the California-Oregon border ("COB"). Because the energy is traveling in the opposite direction of a constrained line, Enron gets paid for the counterflow. Enron also avoids paying ancillary service charges for this export because the energy is non-firm, and the ISO tariff does not require the purchase of ancillary services for non-firm energy.

c. Second, Enron buys transmission from COB to Lake Mead at tariff rates to serve the import. The transmission line from COB to Lake Mead is outside of the ISO's control area, so the ISO is unaware that the same energy being exported from Lake Mead is simultaneously being imported into Lake Mead. Similarly, because the COB to Lake Mead line is outside the ISO's control area, Enron is not subject to payment of congestion charges because transmission charges for the COB to Lake Mead line are assessed based on imbedded costs.

d. The ISO probably cannot readily detect this practice because the ISO only sees what is happening inside its control area, so it only sees half of the picture.

e. The net effect of these transactions is that Enron gets paid for moving energy to relieve congestion without actually moving any energy or relieving any congestion.

3. "Load Shift"

a. This strategy is applied to the Day-Ahead and the real-time markets.

b. Enron shifts load from a congested zone to a less congested zone, thereby earning payments for reducing congestion, i.e., not using our FTRs on a constrained path.

c. This strategy requires that Enron have FTRs connecting the two zones.

d. A trader will overschedule load in one zone, i.e., SP-15, and underschedule load in another zone, i.e., NP-15.

Such scheduling will often raise the congestion price in the zone where load was overscheduled.

The trader will then "shift" the overscheduled "load" to the other zone, and get paid for the unused FTRs. The ISO pays the congestion charge (if there is one) to market participants that do not use their FTRs. The effect of this action is to create the appearance of congestion through the deliberate overstatement of loads, which causes the ISO to charge congestion charges to supply scheduled for delivery in the congested zone. Then, by reverting back to its true load in the respective zones, Enron is deemed to have relieved congestion, and gets paid by the ISO for so doing.

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a. Under this strategy, Enron sells ancillary services in the Day-ahead market.

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Woodruff, Adam

From: Carpenter, Todd
Sent: Saturday, June 24, 2000 8:37 PM
To: 'Gary Eldridge'; Kroger, Paul
Cc: Brower, Chuck; Maxfield, Gregory; Greenhalgh, Jean; Carpenter, Todd; Green, Marlin; Rogers, John_A; Caudill, Michael; Perkins, John
Subject: RE: FW: Swift ET, "flipping" at COB...

The hour that we went over the Swift ET wheel limit I was not informed by the numbers person. I do recall that this is the procedure that was set up some time ago and has rarely been executed when I am on shift.

-----Original Message-----
From: Gary Eldridge [mailto:geldrid@hotmail.com]
Sent: Saturday, June 24, 2000 8:25 PM
To: Paul.Kroger@PacifiCorp.com
Cc: Chuck.Brower@PacifiCorp.com; Greg.Maxfield@PacifiCorp.com; Jean.Greenhalgh@PacifiCorp.com; Todd.Carpenter@PacifiCorp.com; Marlin.Green@PacifiCorp.com; John_A.Rogers@PacifiCorp.com; Michael.Caudill@PacifiCorp.com; John.Perkins@PacifiCorp.com
Subject: Re: FW: Swift ET, "flipping" at COB...

Hi all,

Paul, A couple things as I am reading the email here in Vegas.

1) The procedure to be followed regarding Swift ET wheeling is to be notified from the numbers person downstairs when something like that comes in after the fact. With everything going on and the dynamics of the system, it is difficult to keep tabs on something that comes in after the fact and without alarms. The numbers personnel have been very good when I have been on and exceeded the 222 limit, however this may have been missed on the most recent occasion??? You may want to plug the hole in the notification process to make sure they are aware of this procedure downstairs. It would also be very good if we could please get some sort of alarm that indicates the Swift 222 is over on the actuals and action is needed by the trader, perhaps an alarm in the trader alarm page??

2) Regarding the Redding buy/sell arrangement, I personally came to this agreement with Lyle at the Seattle meeting back in April. We have already been accomplishing this with MID quite a bit, and Redding indicated they would be very interested in this service. Email was sent at that time to everyone (including Paul and Jim) detailing this agreement. While the price is definitely negotiable and I did not set a fixed price (nor would I), I think it benefits both parties for the small amount of work needed to put the buy in one account and the sell in another. I have had mixed responses back from BPAT on whether they even want to know about this transaction and only comes up if it a question in raised by the ISO or Redding to BPAT, giving them a hint that something must be going on. Unless there is some problem in the after the fact world, since it is a net zero on the 3rd AC, its best left up to each trader to do what they think is best. Again, the price is negotiable, but it really helps out Redding and is only a little work for us given the $2 or $3 per mwh in revenue that it generates.

3) In that same vein, I have reached a similar real-time agreement with EPMI a couple of days ago in LA at the WSCC class. Some time ago, I started doing business with Enron in the same way, buying from them at COB and reselling it at FC with a $10 spread. This can of course can only be accomplished when COB, IPC Transmission, Path C, and FC is all either unloaded and we are not negatively impacted in any way, including

financially. It helped EPMI get energy from the NW or ISO to EPE at FC to serve their load at the times during the day that EPMI takes over the EPE marketing responsibility, and helped us out by unloading our rights at COB so we could sell more into the ISO. Of course, I didnt tell them that it saved us $6 in BPAT charges, or they would want to factor that into their calculations. Anyway, same situation applies as with Redding. They would like to accomplish more of this in upcoming months, but we will do it only to the extent it makes economic sense and we have plenty of transmission room to do it. The price spread has been $10 in the past, but is certainly negotiable and comes at a premium during periods of high stress and high market prices. I have already sent an email to Chuck and Mike regarding this agreement, and now the rest of you are aware in case this comes up and you dont have a clue what they are talking about. The hope from Enron is that this can become a fairly standard product, however I dont think it will happen as often as they would like. However, set the spread for whatever you think is best.

Of course, all these buy/sells may go away if BPAT ever insists on unidirectional scheduling practices without benefits of nets. BPAT did not indicate any change of current procedure when this was brought up at the WSCC class over the last few days.

Guess thats it for now. Just trying to get us closer to a bonus.

Gary

>From: "Eldridge, Gary" <Gary.Eldridge@PacifiCorp.com>
>To: geldrid@teleport.com
>Subject: FW: Swift ET, "flipping" at COB...
>Date: Thu, 22 Jun 2000 16:59:46 -0700
>
>
>
> > ----------
> > From: Kroger, Paul
> > Sent: Thursday, June 22, 2000 4:59:46 PM
> > To: Chuck (Charles) Brower; Gary Eldridge; Greg (Gregory) Maxfield;
>Jean
> > Greenhalgh; John Rogers; Jp (John) Perkins; Marlin Green; Michael
>Caudill;
> > Patti Day; Todd Carpenter
> > Subject: Swift ET, "flipping" at COB...
> > Auto forwarded by a Rule
> >
>We had another "oops, dang!" yesterday: Swift generation put us 13 MW over
>our 222 MW contract demand and we had not asked BPA for ET wheeling. The
>exposure is $56,420. I mention it because we need to be aware of as many
>of
>these land mines as possible and steer clear of them. Just so everyone is
>clear here is some background:
>
> Swift generation is delivered to BPA-Woodland via the Speelyai line
>and the line is good for 300 MW. Cowlitz PUD owns 78 MW of the Swift
>project, so we only buy 222 MW of BPA transmission from Woodland to our
>system. Our usage is based on the metered delivery at Woodland (KWH acct.
>30142730), less any energy delivered to Cowlitz at the project (i.e.
>BPA-COPD SWIFT). So we are OK as long as the BPA-Woodland quantity less
>Cowlitz Swift schedules does not exceed 222. If there is any chance that
>it
>might (and when using Swift for reserves beware that loss of a unit can
>easily push us over the limit), notify BPAT of our need for "ET" wheeling
>from Swift. After the hour, give them the exact ET usage from the second
>page of display 62.
>
>

>
>Also had a conversation with Lyle Hurley of Redding regarding our policy on
>"flipping" energy at COB. He thought we had an "agreement" to provide the
>service for $2, but I told him that it was always subject to change
>depending on conditions. If this can be done for them with no impact on
>your other business it's one thing, but if it's a nuisance during busy
>times
>don't hesitate to make it worth your time. Sometimes it may be advisable
>to
>drive them away.
>

Woodruff, Adam

From: Gary Eldridge [geldrid@hotmail.com]
Sent: Sunday, June 25, 2000 7:15 PM
To: Todd.Carpenter@PacifiCorp.com; geldrid@hotmail.com; Paul.Kroger@PacifiCorp.com
Cc: Chuck.BROWER@PacifiCorp.com; Gregory.Maxfield@PacifiCorp.com; Jean.Greenhalgh@PacifiCorp.com; Marlin.Green@PacifiCorp.com; John_A.Rogers@PacifiCorp.com; Michael.Caudill@PacifiCorp.com; John.Perkins@PacifiCorp.com
Subject: RE: FW: Swift ET, "flipping" at COB...

Todd,

Thanks for the confirmation. The real time trader should not be held responsible for the breakdown in communication from the numbers person. This reconfirmation of procedure needs to be accomplished with the numbers personnel. They are the ones knowing that the Swift wheeling is over the limits, and without notification to the traders or alarms in place, it is extremely possible this will be missed after the fact by the real time traders. Paul, could you please reconfirm this procedure with the numbers management? This will be a good step in helping to resolve this issue. The real answer here is to get some kind of after the fact alarm in place that will show up in the real-time trader alarm package. Paul, you might want to talk to LaRocco or whoever about this. There is substantial dollars at risk to justify working on this alarm asap.

Thanks,

Gary

>From: "Carpenter, Todd" <Todd.Carpenter@PacifiCorp.com>
>To: "'Gary Eldridge'" <geldrid@hotmail.com>, "Kroger, Paul"
><Paul.Kroger@PacifiCorp.com>
>CC: "Brower, Chuck" <Chuck.BROWER@PacifiCorp.com>, "Maxfield,
>Gregory" <Gregory.Maxfield@PacifiCorp.com>, "Greenhalgh, Jean"
><Jean.Greenhalgh@PacifiCorp.com>, "Carpenter, Todd"
><Todd.Carpenter@PacifiCorp.com>, "Green, Marlin"
><Marlin.Green@PacifiCorp.com>, "Rogers, John_A"
><John_A.Rogers@PacifiCorp.com>, "Caudill, Michael"
><Michael.Caudill@PacifiCorp.com>, "Perkins, John"
><John.Perkins@PacifiCorp.com>
>Subject: RE: FW: Swift ET, "flipping" at COB...
>Date: Sat, 24 Jun 2000 20:37:24 -0700
>
>The hour that we went over the Swift ET wheel limit I was not informed by
>the numbers person. I do recall that this is the procedure that was set up
>some time ago and has rarely been executed when I am on shift.
>
>-----Original Message-----
>From: Gary Eldridge [mailto:geldrid@hotmail.com]
>Sent: Saturday, June 24, 2000 8:25 PM
>To: Paul.Kroger@PacifiCorp.com
>Cc: Chuck.Brower@PacifiCorp.com; Greg.Maxfield@PacifiCorp.com;
>Jean.Greenhalgh@PacifiCorp.com; Todd.Carpenter@PacifiCorp.com;
>Marlin.Green@PacifiCorp.com; John_A.Rogers@PacifiCorp.com;
>Michael.Caudill@PacifiCorp.com; John.Perkins@PacifiCorp.com
>Subject: Re: FW: Swift ET, "flipping" at COB...
>
>
>
>Hi all,
>

1200337

Confidential Subject To Protective Order

PC04409

>Paul, A couple things as I am reading the email here in Vegas.
>
>1) The procedure to be followed regarding Swift ET wheeling is to be
>notified from the numbers person downstairs when something like that comes
>in after the fact. With everything going on and the dynamics of the
[redacted]ystem,

>it is difficult to keep tabs on something that comes in after the fact and
>without alarms. The numbers personnel have been very good when I have been
>on and exceeded the 222 limit, however this may have been missed on the
>most
>
>recent occasion??? You may want to plug the hole in the notification
>process to make sure they are aware of this procedure downstairs. It would
>also be very good if we could please get some sort of alarm that indicates
>the Swift 222 is over on the actuals and action is needed by the trader,
>perhaps an alarm in the trader alarm page??
>
>2) Regarding the Redding buy/sell arrangement, I personally came to this
>agreement with Lyle at the Seattle meeting back in April. We have already
>been accomplishing this with MID quite a bit, and Redding indicated they
>would be very interested in this service. Email was sent at that time to
>everyone (including Paul and Jim) detailing this agreement. While the
>price
>
>is definitely negotiable and I did not set a fixed price (nor would I), I
>think it benefits both parties for the small amount of work needed to put
>the buy in one account and the sell in another. I have had mixed responses
>back from BPAT on whether they even want to know about this transaction and
>only comes up if it a question in raised by the ISO or Redding to BPAT,
>giving them a hint that something must be going on. Unless there is some
>problem in the after the fact world, since it is a net zero on the 3rd AC,
>its best left up to each trader to do what they think is best. Again, the
>price is negotiable, but it really helps out Redding and is only a little
[redacted]ork for us given the $2 or $3 per mwh in revenue that it generates.

>3) In that same vein, I have reached a similar real-time agreement with
>EPMI a couple of days ago in LA at the WSCC class. Some time ago, I
>started
>
>doing business with Enron in the same way, buying from them at COB and
>reselling it at FC with a $10 spread. This can of course can only be
>accomplished when COB, IPC Transmission, Path C, and FC is all either
>unloaded and we are not negatively impacted in any way, including
>financially. It helped EPMI get energy from the NW or ISO to EPE at FC to
>serve their load at the times during the day that EPMI takes over the EPE
>marketing responsibility, and helped us out by unloading our rights at COB
>so we could sell more into the ISO. Of course, I didnt tell them that it
>saved us $6 in BPAT charges, or they would want to factor that into their
>calculations. Anyway, same situation applies as with Redding. They would
>like to accomplish more of this in upcoming months, but we will do it only
>to the extent it makes economic sense and we have plenty of transmission
>room to do it. The price spread has been $10 in the past, but is certainly
>negotiable and comes at a premium during periods of high stress and high
>market prices. I have already sent an email to Chuck and Mike regarding
>this agreement, and now the rest of you are aware in case this comes up and
>you dont have a clue what they are talking about. The hope from Enron is
>that this can become a fairly standard product, however I dont think it
>will
>
>happen as often as they would like. However, set the spread for whatever
>you think is best.
>
[redacted]f course, all these buy/sells may go away if BPAT ever insists on
unidirectional scheduling practices without benefits of nets. BPAT did not
>indicate any change of current procedure when this was brought up at the
>WSCC class over the last few days.

>
>Guess thats it for now. Just trying to get us closer to a bonus.
>
>
>Gary

> >From: "Eldridge, Gary" <Gary.Eldridge@PacifiCorp.com>
> >To: geldrid@teleport.com
> >Subject: FW: Swift ET, "flipping" at COB...
> >Date: Thu, 22 Jun 2000 16:59:46 -0700
> >
> >
> >
> > > ----------
> > > From: Kroger, Paul
> > > Sent: Thursday, June 22, 2000 4:59:46 PM
> > > To: Chuck (Charles) Brower; Gary Eldridge; Greg (Gregory)
>Maxfield;
> >Jean
> > > Greenhalgh; John Rogers; Jp (John) Perkins; Marlin Green; Michael
> >Caudill;
> > > Patti Day; Todd Carpenter
> > > Subject: Swift ET, "flipping" at COB...
> > > Auto forwarded by a Rule
> > >
> >We had another "oops, dang!" yesterday: Swift generation put us 13 MW
>over
> >our 222 MW contract demand and we had not asked BPA for ET wheeling. The
> >exposure is $56,420. I mention it because we need to be aware of as many
> >of
> >these land mines as possible and steer clear of them. Just so everyone
>is
> >clear here is some background:
> >
> > Swift generation is delivered to BPA-Woodland via the Speelyai line
> >and the line is good for 300 MW. Cowlitz PUD owns 78 MW of the Swift
> >project, so we only buy 222 MW of BPA transmission from Woodland to our
> >system. Our usage is based on the metered delivery at Woodland (KWH
>acct.
> >30142730), less any energy delivered to Cowlitz at the project (i.e.
> >BPA-COPD SWIFT). So we are OK as long as the BPA-Woodland quantity less
> >Cowlitz Swift schedules does not exceed 222. If there is any chance that
> >it
> >might (and when using Swift for reserves beware that loss of a unit can
> >easily push us over the limit), notify BPAT of our need for "ET" wheeling
> >from Swift. After the hour, give them the exact ET usage from the second
> >page of display 62.
> >
> >
> >
> >Also had a conversation with Lyle Hurley of Redding regarding our policy
>on
> >"flipping" energy at COB. He thought we had an "agreement" to provide
>the
> >service for $2, but I told him that it was always subject to change
> >depending on conditions. If this can be done for them with no impact on
> >your other business it's one thing, but if it's a nuisance during busy
> >times
> >don't hesitate to make it worth your time. Sometimes it may be advisable
> >to
> >drive them away.
> >
>
>_____
>Get Your Private, Free E-mail from MSN Hotmail at http://www.hotmail.com
>

>

Woodruff, Adam

From: Andres, Theresa
Sent: Friday, September 14, 2001 4:14 PM
To: Sabo, Valarie
Subject: RE: ricochet accounts +

Matt McGrath

-----Original Message-----
From: Sabo, Valarie
Sent: Friday, September 14, 2001 3:36 PM
To: Andres, Theresa
Subject: ricochet accounts +

Per Paul Rice: the ricochet accounts are named thus to expedite the correct managing of these accounts in Real Time. Each ricochet schedule usually has more than one leg to it, and currently, the Real Time schedulers have a difficult time realizing that they need to find ALL the applicable legs and so they often don't cut the schedule correctly. Using the name RICOCHET will instantly alert them to the type of schedule.

Ricochet account names should be rolled out soon. They supposedly are not in use yet. I asked Paul if there was a plan to notify all users of the new system, and a plan to apply a naming convention that would uniquely identify each leg of the ricochet schedule. He said there wasn't a plan, but he would now make one, and assured me that the naming convention was in place to show uniqueness.

I have time set up with Dowdy re: memo accounts. I think that these specific schedules in question are going to cross lines between Dick and the Transmission schedulers. The transmission schedulers I need to talk to are Leon and Matt. Do you what is Matt's last name?

Let me know if I can help more on the ricochet accounts. Will be closing the loop on the memo accounts, and will write a white paper on the problem, and the recommendation and will be sending it upstairs. Will need you to review it before I send it. Thanks for your continued interest.

Valarie A. Sabo
ph 503 813 6904
fax 503 813 6291

[redacted]

odruff, Adam

[redacted]: Portouw, Jim
Thursday, November 02, 2000 2:47 PM
[redacted]: Carpenter, Todd; Caudill, Michael; Eldridge, Gary; Green, Marlin; Greenhalgh, Jean; Humphrey, Randy; Maxfield, Greg (Gregory); Perkins, Jp (John); Rogers, John
ubject: FW: display_p.asp?doc_id=NEt1031037 (http://workgroups.newsedge.com/display_p.asp?d

—Original Message—
rom: Watters, Stan
ent: Thursday, November 02, 2000 1:07 PM
o: Apperson, John; Portouw, Jim; Kroger, Paul
ubject: FW: display_p.asp?doc_id=NEt1031037 (http://workgroups.newsedge.com/display_p.asp?d

FYI

—Original Message—
From: Kvamme, Dave
Sent: Wednesday, November 01, 2000 7:37 PM
To: Watters, Stan
Subject: display_p.asp?doc_id=NEt1031037 (http://workgroups.newsedge.com/display_p.asp?d

display_p.htm

[redacted]nge stuff: Megawatt laundering

[redacted]

Confidential Subject
To Protective Order

PC04414

1200361

Woodruff, Adam

From: Kroger, Paul
Sent: Monday, December 18, 2000 9:30 AM
To: Eldridge, Gary; Portouw, Jim
Cc: Apperson, John
Subject: RE: PWX and the CISO

Thanks for the observations, Gary. I think your concerns are justified, but there's just no telling what's really going on at this point with the various players. As long as there are folks out there willing to sell to the CISO then NW market prices should be related to what the CISO will pay. I think we need to do what makes sense for us, and the exchange seems to be a relatively low profile approach to take.

-----Original Message-----
From: Eldridge, Gary
Sent: Sunday, December 17, 2000 11:13 AM
To: Portouw, Jim; Kroger, Paul
Subject: PWX and the CISO

Jim and Paul,

Just to put a bug in your ear.

On Saturday, PWX went out on the NW market trying to buy at $375 for NW energy, and then increased the amount to $500 on Sunday, causing somewhat of an alarm in the NW markets. Although not confirmed, it was the consensus opinion that PWX is flipping this energy to the ISO at around $600. At least $600 was the price that someone else was sleeving to the ISO via a marketer. That way, PWX can say their incremental was $500 to justify their sales to the ISO on the reports?? Anyway, a few people were so leery of that game that they didn't sell to PWX and instead kept selling to me between $340-400. Which is sort of funny, since I started flipping their stuff to the ISO myself on the 2-1 exchange if they got into trouble and I felt we could spare it. I was tempted to sell to PWX at $500 or a marketer at $600, but we weren't all that great on resources so I decided to keep it, and besides, if it got back to my sellers that I was flipping their stuff to PWX or a marketer, I think I would have been lynched. I was counting that the ISO wouldn't blab about my exchange to them. My question: Is there a risk that PWX could start putting pressure on the NW market and get the NW prices bumped up to a level just below what the ISO is willing to pay oom?? Why should the NW market keep selling to us at prices that are substantially below PWX, even though PWX is just potentially flipping it into the ISO?? Right now there seems to be, at least on real-time, a feeling in the NW of helping the NW first. However, it might not take too long before the economics win out.

Am I off base on this??

Gary