

RICHARD H. WILLIAMS 503.778.2160 williamsr@lanepowell.com

December 15, 2005

#### VIA HAND DELIVERY

Public Utility Commission of Oregon Attention: Filing Center 550 Capitol Street NE #215 Salem, OR 97308-2148

Re:

UM 1002 — Wah Chang, Petitioner v. PacifiCorp, Respondent Wah Chang's Direct Testimony and Exhibits

Dear Sir or Madam:

Enclosed for filing are the original and five copies of Wah Chang's Direct Testimony and Exhibits, as follows:

- (1) Direct Testimony of Robert McCullough (WC/800) with accompanying Exhibits (WC/801 through WC/868).
- (2) Direct Testimony of Deborah J. Stare (WC/900) with accompany Exhibits (WC/901 through WC/907).
- (3) Transcripts of Depositions of PacifiCorp personnel (WC/1000 through WC/1010).
- (4) Other Exhibits (WC/1100 through WC/1129).
- (5) Certificate of Service of Wah Chang's Direct Testimony and Exhibits.

The exhibits accompanying the Direct Testimony of Deborah J. Stare consist of audio files and transcripts of PacifiCorp trader conversations that occurred in 2000–2001, and other documents. PacifiCorp has designated the conversations and other documents Confidential Pursuant to Protective Order 01-149 entered in this proceeding. Accordingly, Exhibits WC/901 through WC/907 are filed under seal.

PacifiCorp also has designated the enclosed deposition transcripts as Confidential Pursuant to the Protective Order. Accordingly, Exhibits WC/1000 through WC/1010 are also filed under seal.

PacifiCorp also has designated the following documents and information as Confidential Pursuant to Protective Order, and they are filed under seal also: WC/802,

97204-3158

Public Utility Commission of Oregon Attention: Filing Center December 15, 2005 Page 2

WC/805, WC/810, WC/815, WC/816, WC/842, WC/849, WC/856, W/C 857, WC/1108, WC/1118, WC/1119, WC/1121, WC/1122, WC/1123, WC/1126, WC/1127, WC/1128, and WC/1129.

Wah Chang reserves the right to contest PacifiCorp's designation of materials as Confidential Pursuant to the Protective Order.

Wah Chang is also filing under seal the Direct Testimony of Robert McCullough because parts of Mr. McCullough's testimony include information that PacifiCorp has designated as confidential. Given present time constraints, it is not feasible to prepare a redacted version of the testimony for enclosure with this letter. The following additional exhibits are filed under seal at Mr. McCullough's request: WC/806, WC/807, WC/809, WC/815, WC/823, WC/827, WC/834, WC/836, WC/840.

Consistent with Commission filing rules, I am also enclosing a compact disk containing electronic versions of the enclosed testimony and exhibits, other than the testimony and exhibits filed under seal.

Very truly yours,

Richard H. Williams

Chang H. Willing

Enclosures

cc (by hand delivery): Honorable Traci Kirkpatrick (w/o encs)

Mr. Paul Graham/Mr. Jason Jones

Mr. Lawrence Reichman

Mr. Paul Wrigley

006854.0164/548144.1

Public Utility Commission of Oregon Attention: Filing Center December 15, 2005 Page 3

bcc (w/encs): Mr. James H. Denham

Mr. Robert F. McCullough, Jr. Mr. Berne Martin Howard

006854.0164/548144.1



RICHARD H. WILLIAMS 503.778.2160 williamsr@lanepowell.com

December 29, 2005

#### VIA OVERNIGHT DELIVERY

Public Utility Commission of Oregon Attention: Filing Center 550 Capitol Street NE #215 Salem, OR 97308-2148

Re:

UM 1002 — Wah Chang, Petitioner v. PacifiCorp, Respondent

Wah Chang's Direct Testimony and Exhibits

Dear Sir or Madam:

Please refer to my letter dated December 15, 2005, enclosing for filing on behalf of Wah Chang a Certificate of Service with attached list of exhibits transmitted for filing with the letter.

The exhibit list attached to the Certificate of Service contained errors described below. In addition, two exhibits were omitted from the list and were not filed or served. Accordingly, I am enclosing for filing an Amended Certificate of Service with an amended exhibit list attached to it. I am also enclosing the original and five copies of the two omitted exhibits, WC/817 and WC/825. PacifiCorp has designated Exhibit WC/17 as Confidential Pursuant to Protective Order 01-149 entered in this proceeding, and consequently it is filed under seal.

All exhibits on the December 15 list were in fact filed and served that day. Apart from adding the two exhibits mentioned above, the corrections to the exhibit list pertain to exhibit descriptions and confidentiality designations, as explained below.

1. Certain exhibits to the Direct Testimony of Robert McCullough were erroneously designated as confidential and were filed under seal. Those exhibits are WC/806, WC/807, WC/809, WC/815, WC/823, WC/827, WC/834, WC/836, WC/840, and WC/857. My December 15 letter incorrectly stated that the exhibits were designated as confidential at Mr. McCullough's request. In fact, Mr. McCullough did not request confidential treatment for them, and there was no reason to designate them as confidential. (The cover sheets for those exhibits may have stated that they were designated as confidential by PacifiCorp. If so, that was also an error. The exhibits are not PacifiCorp documents, and PacifiCorp did not designate them as confidential.)

Public Utility Commission of Oregon

Attention: Filing Center December 29, 2005

Page 2

As replacements for the copies filed under seal on December 15, I am enclosing an original and five copies of WC/806, WC/807, WC/809, WC/815, WC/823, WC/827, WC/834, WC/836, WC/840, and WC/857, not sealed and not printed on yellow paper. Please discard the copies of these exhibits filed on December 15.

- 2. The exhibit list identified Exhibit WC/840 as "David Pierce (Enron) E-mail dated July 13, 2001." The correct identification is "David Pierce (NRG) E-mail dated November 12, 2000."
- 3. The exhibit list mistakenly stated that Exhibit WC/1104 was "Withdrawn." In fact, that exhibit was filed and served on December 15 with a correct cover sheet. The enclosed exhibit list identifies the exhibit.
- 4. The exhibit list mistakenly identified Exhibit WC/1117 as "Electric Times Articles." In fact, the articles appeared in Electric Utility Week. The exhibit cover sheet as filed on December 15 correctly identifies exhibit, and there is no need for replacement.

Also enclosed is a compact disk containing an electronic copy of all nonconfidential exhibits, including those filed on December 15 and those transmitted with this letter. Please discard the corresponding disk transmitted on December 15.

Thank you for your assistance.

Very truly yours,

Richard H. Williams

Richard H. W. Hing

#### **Enclosures**

cc (w/o encs): Honorable Traci Kirkpatrick cc (w/encs): Mr. Paul Graham/Mr. Jason Jones

Mr. Lawrence Reichman

Mr. Paul Wrigley

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4	BEFORE THE PUBLIC U OF THE STATE	
5	UM 1	
6	Wah Chang,	)
7	Petitioner,	AMENDED CERTIFICATE OF SERVICE OF WAH CHANG'S
8	v.	) DIRECT TESTIMONY AND ) EXHIBITS
9	PacifiCorp,	
10	Respondent.	
11		)
12	I certify that (a) on December 15, 2005,	I served the documents listed in the six-page
13	Attachment to this certificate, except Exhibits	WC/817 and WC/825, and (b) this day I have
14	served Exhibits WC/817 and WC 825, constituting	ng Wah Chang's Direct Testimony and Exhibits,
15	upon all parties of record in this proceeding, by	delivering a copy in person or by mailing a copy
16	properly addressed with first class postage pre	epaid, or by electronic mail pursuant to OAR
17	860-013-0070, to the following parties or attorne	ys of parties:
18		
19		
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26		

1	CONFIDENTIAL	CONFIDENTIAL
2	PAUL GRAHAM	LAWRENCE REICHMAN
2	JASON JONES	PERKINS COIE LLP
3	DEPARTMENT OF JUSTICE	1120 NW COUCH ST - 10 FL
4	REGULATED UTILITY &	PORTLAND OR 97209-4128
7	BUSINESS SECTION 1162 COURT ST NE	lreichman@perkinscoie.com
5	SALEM OR 97301-4096	
6	paul.graham@state.or.us	
U	jason.w.jones@doj.state.or.us	
7		
8	CONFIDENTIAL PAUL M WRIGLEY	
o	PACIFIC POWER & LIGHT	
9	825 NE MULTNOMAH STE 800	
10	PORTLAND OR 97232	
10	paul.wrigley@pacificorp.com	
11		
12		
12		
13	Dated at Portland, Oregon, this 29th	h day of December, 2005.
14		
		fishard H. Williams
15		Richard H. Williams, OSB No. 72284
16		Of Attorneys for Petitioner Wah Chang
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# DEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON UM 1002

## Wah Chang, Petitioner v. PacifiCorp, Respondent

#### WAH CHANG'S DIRECT TESTIMONY AND EXHIBITS

#### Exhibit 800 series: Testimony of Robert F. McCullough, Jr., and accompanying Exhibits:

Ex. No.	Description	Confidential
WC/800	Testimony of Robert F. McCullough, Jr.	Yes
WC/801	Curriculum Vitae of Robert F. McCullough, Jr.	No
WC/802	E-mail from Todd Carpenter to Gary Eldridge et al., re Swift ET, "flipping" at COB, dated June 24, 2000	Yes
WC/803	Enron Inc Sheets (on disk)	No
WC/804	20000522 Ricochet	No
WC/805	PacifiCorp Trading Information	Yes
WC/806	Tim Belden Presentation re Western Power Markets	No
WC/807	Enron Trading Hub Correlation Matrix	No
WC/808	Death Star Templates (on disk)	No
WC/809	Prepared Initial Tape Testimony of Barry E. Sullivan Witness for the Staff of FERC	No
WC/810	E-mail from Gary Eldridge re Seattle Scheduler Meeting Notes- #2, dated May 18, 2005	Yes
WC/811	Enron Record of Transaction	No
WC/812	Conversation between Les at Enron and Harry of City of Redding	No
WC/813	City of Redding Conversations	No
WC/814	E-mail from Tim Belden to Greg Piper, dated May 12, 2000	No
WC/815	E-mail from Tim Belden re "Out of Market", Dated May 23, 2000	No
WC/816	2005 Discovery Buy/Resales by Month	Yes
WC/817	PacifiCorp Response to CAISO Certification 1/17/01	Yes
WC/818	Docket No. EL03-159-000, Ex. No. MID-4	No
WC/819	City of Redding Conversations	No

Page 1 – UM 1002. ATTACHMENT TO AMENDED CERTIFICATE OF SERVICE OF WAH CHANG'S DIRECT TESTIMONY AND EXHIBITS

Ex. No.	Description	Confidential
WC/820	Yoder-Hall Memo dated December 8, 2000	No
WC/821	City of Redding Conversations	No
WC/822	Tim Belden Presentation August 5, 2000	No
WC/823	City of Redding Conversations	No
WC/824	Tim Belden E-mails (on disk)	No
WC/825	Tim Belden E-mail, dated November 5, 2001	Yes
WC/826	Christian Yoder E-Mail	No
WC/827	Presentation by Tim Belden, dated March 25, 2001	No
WC/828	Bill Williams Enron E-mail, dated April 17, 2001	No
WC/829	Steve C. Hall E-mail Attaching Draft Memorandum re Trading Strategies, dated November 14, 2000	No
WC/830	Kim Ward (Enron) E-mail dated May 4, 2001	No
WC/831	Reserved	N/A
WC/832	Enron Buy-Resales	No
WC/833	Reserved	N/A
WC/834	Bill Williams (Enron E-mail), dated August 30, 2001	No
WC/835	Reserved	N/A
WC/836	Reliant Trader Conversations, dated June 19, 2000; June 20, 2000; June 21, 2000; and June 23, 2000	No
WC/837	Testimony of Ann M. Hatcher on Behalf of Silicon Valley Power in FERC Dockets	No
WC/838	Stanley Cocke (Enron) E-mail dated July 13, 2001	No
WC/839	Order on Complaint Utah Associated Municipal Power Systems Docketed June 29, 1998	No
WC/840	David Pierce (NRG) E-mail, dated November 12, 2000	No
WC/841	Letter from Harvey L. Reiter to Donald Gelinas, with attached Affidavit of Arlen Orchard, dated May 22, 2002	No
WC/842	2005 Discovery Buy Resell by Counterparty	Yes
WC/843	Reserved	N/A
WC/844	PacifiCorp/Enron Buy Sells by Month	No
WC/845	Enron E-mail to Portland Shift re Project Red Congo	No
WC/846	Handwritten Notes	No

Page 2 – UM 1002. ATTACHMENT TO AMENDED CERTIFICATE OF SERVICE OF WAH CHANG'S DIRECT TESTIMONY AND EXHIBITS

006854.0167/548329.3

Ex. No.	Description	Confidential
WC/847	Index of Relevant Material and E-mail from Paul Cummings	No
WC/848	Agreement and Stipulation in FERC Docket re City of Redding, CA	No
WC/849	Exhibit 8A, 8B and 8C to Affidavit of Stanley K. Watters May 22, 2000	Yes
WC/850	Chart of November 6, 2000 Modesto Buy/Resells ("767" data)	Yes
WC/851	Chart Describing November 6, 2000 Death Star	No
WC/852	Enron May 6 Data Request Supplemental Dated November 15, 2002	No
WC/853	PacifiCorp Overscheduling	No
WC/854	Driscoll's Final Procedures & Forney's Perpetual Loop	No
WC/855	Enpower records of Death Stars with PacifiCorp	No
WC/856	Audio File Names for Some Buy/Resell Conversations	Yes
WC/857	Accomplishments of Michael Driscoll—year end 2000	No
WC/858	July 1, 2000 Death Star (Deal Comments)	No
WC/859	July 1, 2000 Enpower and Inc Sheet	No
WC/860	August 19, 2000 Death Star	No
WC/861	November 27, 2000 Aquila Transaction	No
WC/862	Enron Ricochet Counterparties	No
WC/863	Statement of Terry Winter before Congress, July 22, 2002	No
WC/864	Attachment I.K.1 to PGE Affidavit Filed in FERC Docket No. PA02-2-000	No
WC/865	Reserved	N/A
WC/866	Transcript of Scheduler Telephone Conversation, April 26, 2000	No
WC/867	August 23, 2000 ISO Interchange Data from Hildebrandt	No
WC/868	August 23, 2000 CAPS Supplemental Bids	No

#### Exhibit 900 series: Testimony of Deborah J. Stare and accompanying Exhibits:

Ex. No.	Description	Confidential
WC/900	Testimony of Deborah J. Stare	No
WC/901	Transcript of PacifiCorp Trader Conversations Submitted to FERC, with Notations	Yes
WC/902	Excel Spreadsheet Containing Hyperlinks to Audio Files of	Yes

Page 3 – UM 1002. ATTACHMENT TO AMENDED CERTIFICATE OF SERVICE OF WAH CHANG'S DIRECT TESTIMONY AND EXHIBITS

	Trader Conversations Submitted to FERC and Cross-References to Transcript of FERC Submitted Conversations (WC/901) (on CD)	
WC/903	Transcripts of PacifiCorp Trader Conversations Selected through Wah Chang Listening Project	Yes
WC/904	Excel Spreadsheet Prepared by McCullough Research of Selected Audio Files from Wah Chang's Listening Project and Corresponding Transcripts (on CD)	Yes
WC/905	PC 075269 – Produced by PacifiCorp as Attachment 155 in Response to Wah Chang Data Requests – (on CD)	Yes
WC/906	PC 018963 – Produced by PacifiCorp as Attachment 99 in Response to Wah Chang Data Requests (on CD)	Yes
WC/907	Real-Time Blotters (PC 019435 through PC 027756) Produced by PacifiCorp as Attachment 92 in Response to Wah Chang Data Requests (on DVD)	Yes

#### **Exhibit 1000 series:** Transcripts of Depositions of PacifiCorp personnel:

Ex. No.	Description	Confidential
WC/1000	Deposition Testimony of Greg Maxfield, taken October 17, 2005	Yes
WC/1001	Deposition Testimony of Valarie Sabo, taken October 24, 2005	Yes
WC/1002	Deposition Testimony of David Kvamme, taken October 24, 2005	Yes
WC/1003	Deposition Testimony of Jim Portouw, taken November 15, 2005	Yes
WC/1004	Deposition Testimony of John Apperson, taken November 15, 2005	Yes
WC/1005	Deposition Testimony of Paul Kroger, taken November 16, 2005	Yes
WC/1006	Deposition Testimony of Marlin Green, taken November 16, 2005	Yes
WC/1007	Deposition Testimony of Todd Carpenter, taken November 21, 2005	Yes
WC/1008	Deposition Testimony of John Rogers, taken November 21, 2005	Yes
WC/1009	Deposition Testimony of Stanley Watters, taken November 29, 2005	Yes
WC/1010	Deposition Testimony of Gary Eldridge, taken November 30, 2005	Yes

#### **Exhibit 1100 series: Other Exhibits:**

Ex. No.	Description	Confidential
WC/1100	Timothy M. Belden Plea Agreement, filed October 17, 2002	No
WC/1001	John M. Forney Plea Agreement, filed August 5, 2004	No
WC/1002	Jeffrey S. Richter Plea Agreement, filed February 4, 2003	No
WC/1103	Letter from Roy Hemmingway to The Honorable Patrick Wood, dated April 17, 2003	No
WC/1104	Letter from Hardy Myers to The Honorable Patrick Wood, dated July 12, 2004	No
WC/1105	Order on Complaint	No
	Utah Associated Municipal Power Systems v. PacifiCorp, Docket No. EL 98-32-00	
	83 FERC ¶ 61, 337, issued June 29, 1998	
WC/1106	Request for Rehearing and Clarification of PacifiCorp	No
	PacifiCorp v. Reliant Energy Services, Inc. (Docket No. EL02-80-00) Morgan Stanley Capital Group, Inc., (Docket No. EL 02-81-00) Williams Energy Marketing & Trading Company, (Docket No. EL 02-82-00), and El Paso Merchant Energy, L.P. (Docket NO. EL 02-83-00) July 29, 2002	
WC/1107	E-mail from JMF to Portland Shift re Project Red Congo Document number ECf000227557	No
WC/1108	Letter from Edward Silliere of Dow Jones to "Gentlemen" RE: Guidelines for Participants, California-Oregon Border (COB) Electricity Price Index, dated February 1, 1995	Yes
WC/1109	ISO Market Monitoring & Information Protocol Issued by Roger Smith on October 13, 2000	No
WC/1110	Response of PacifiCorp to the FERC's Data Request, dated May 21, 2002	No
	Affidavit of Stanley K. Watters on behalf of PacifiCorp	
WC/1111	PacifiCorp's Response to Petitioner's 7th Data Request	No
WC/1112	PacifiCorp's Response to Petitioner's 9th Data Request	No
WC/1113	PacifiCorp's Response to Petitioner's 10th Data Request	No
WC/1114	PacifiCorp's Response to Petitioner's 12th Data Request	No
WC/1115	PacifiCorp's Response to Petitioner's 13th Data Request	No

Page 5 – UM 1002. ATTACHMENT TO AMENDED CERTIFICATE OF SERVICE OF WAH
CHANG'S DIRECT TESTIMONY AND EXHIBITS
006854.0167/548329.3

Ex. No.	Description	Confidential
WC/1116	PacifiCorp's Response to Petitioner's 14th Data Request	No
WC/1117	Electric Utility Week Articles	No
WC/1118	Supplemental Response of PacifiCorp to FERC's Data Request, dated May 21, 2002	Yes
	Supplemental Affidavit of Stanley K. Watters on Behalf of PacifiCorp	
WC/1119	Exhibit 2 to PacifiCorp's Response to FERC's Data Request, dated May 21, 2002	Yes
WC/1120	Reserved	N/A
WC/1121	<ul> <li>E-mail:</li> <li>July 6, 2000, from Terry Hudgens to Stan Watters et al. re Cal ISO</li> <li>September 8, 2000, from Keith Johnson to Alan Richardson et al. re Energy market Report—09/07/00</li> <li>March 20, 2001, from Keith Johnson to Alan Richardson et al. re Energy Market Report—03/19/01</li> <li>May 25, 2001, from Steven Wallace to Cory Anderson et al. re Downward Price Pressure</li> <li>June 25, 2001, from John Apperson to Jim Portouw et al. re Effect of FERC Price Cap Order on Fundamentals</li> <li>July 9, 2001, from Nathalie Wessling to Cory Anderson et al. re July 9 Bloomberg Power Lines Report</li> <li>August 10, 2001 from Rob Goodman to Jean Wilson et al. re Scheduling Stateline</li> </ul>	Yes
WC/1122	Attachment 126(b) to PacifiCorp Data Response	Yes
WC/1123	List of PacifiCorp Traders and Organizational Chart	Yes
WC/1124	Reserved	N/A
WC/1125	Attachment 75 to PacifiCorp Data Response	No
WC/1126	Attachment 76 to PacifiCorp Data Response	Yes
WC/1127	PacifiCorp Response to Oregon Department of Justice Civil Investigative Demand, February 19, 2003	Yes
WC/1128	PacifiCorp Response to FBI Subpoena, September 17, 2002	Yes
WC/1129	OPUC Staff Request to PacifiCorp, October 24, 2003 PacifiCorp Response, November 12, 2003	Yes

Page 6 – UM 1002. ATTACHMENT TO AMENDED CERTIFICATE OF SERVICE OF WAH CHANG'S DIRECT TESTIMONY AND EXHIBITS

Docket UM 1002 WC/806 Witness: McCullough

## BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

WAH CHANG

Tim Belden Presentation re Western Power Markets

December 15, 2005

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From: Sent: To: Subject:

Tim Belden/HOU/ECT Monday, May 01, 2000 10:04 PM John J Lavorato/Corp/Enron Presentation

**3** 2

-- Forwarded by Tim Belden/HOU/ECT on 05/01/2000 07:06

Debra Davidson 05/01/2000 05:38 PM To: Tim Belden/HOU/ECT@ECT co: Subject: Presentation

ecd-000670033.tif (3150x2400x2 tiff)



# Enron North America Western Power Markets

Tim Belden, Vice President West Power Trading May 3 - 4, 2000 Cd-000670033

# **Topics**

- Western Power Market Overview
- Trading Opportunities
- Resource Needs

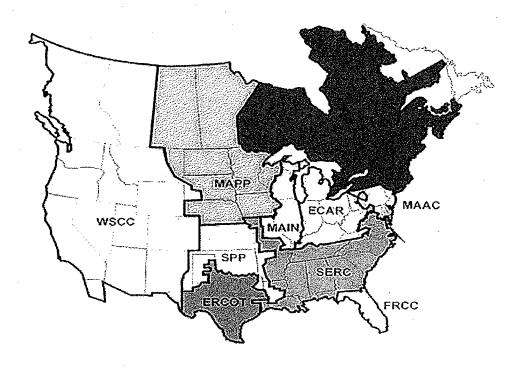
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# Cd-000670035

# Western Power Markets

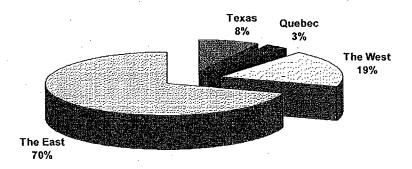
- Generation
- Transmission
- Load
- Regulatory Status

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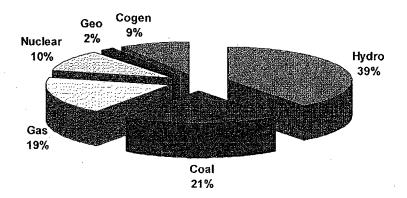
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### **Relative Size of US Power Markets**



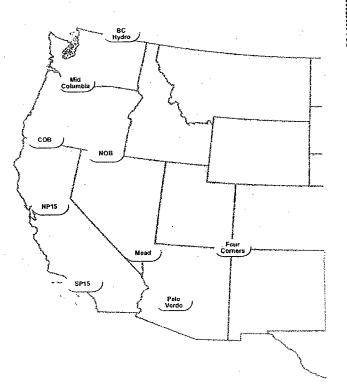
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### **WSCC Generation Resources**



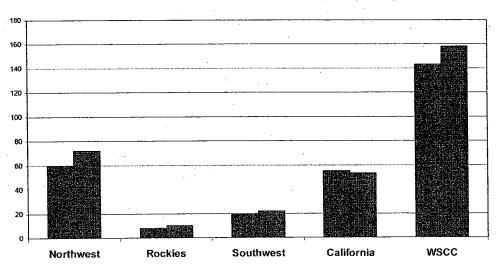
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WSCC Trading Hubs



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## WSCC Load and Resources (GW)



■ Load ■ Generation

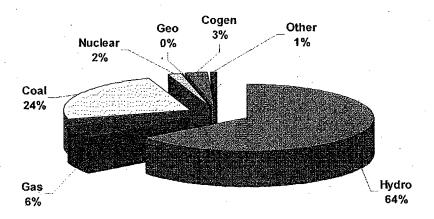
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## Northwest Market Structure

- Hydro generation dominated by BPA
- 80% of transmission owned by BPA
- Competitive wholesale markets
- Little retail access

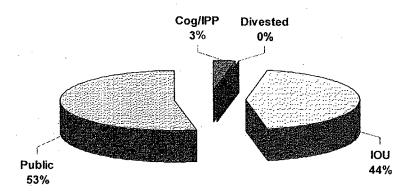
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### Northwest Generation Breakdown



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## **Northwest Generation By Owner Type**

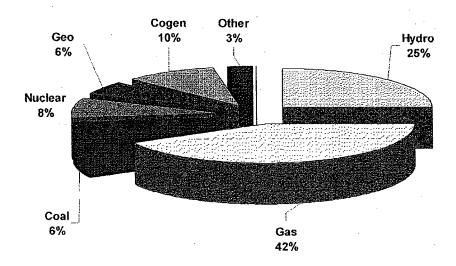


## California Market Structure

- CA ISO responsible for reliability, transmission access, and ancillary services
- PX Runs Energy Market
- Full Retail Access
- ISO and PX have complex set of rules that are prone to gaming

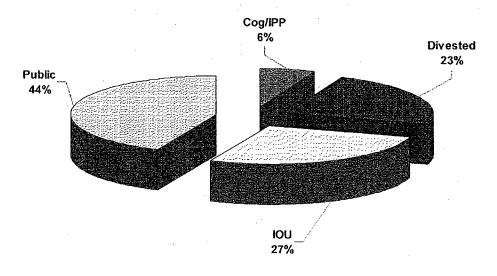
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### California Generation Breakdown



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## California Generation by Owner Type

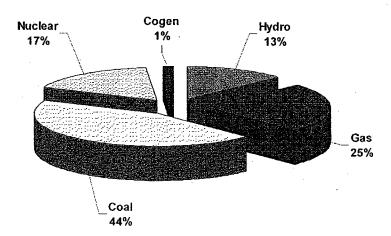


## Southwest Market Overview

- Moderate wholesale and no retail competition
- Generation dominated by baseload coal and nuclear

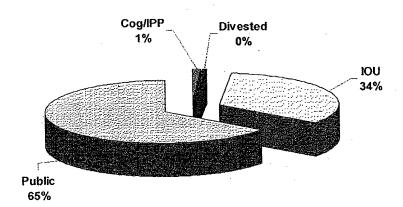
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### Southwest Generation Breakdown



# Cd-000670049

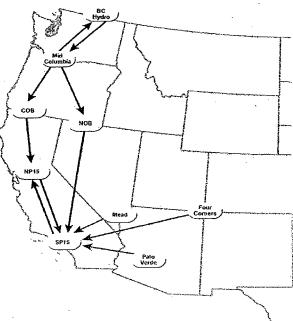
## **Southwest Generation by Owner Type**



# Western Transmission Markets

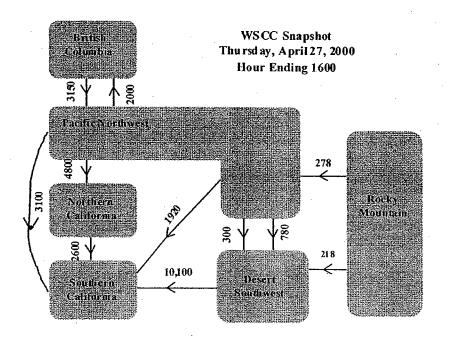
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Cd-000670051

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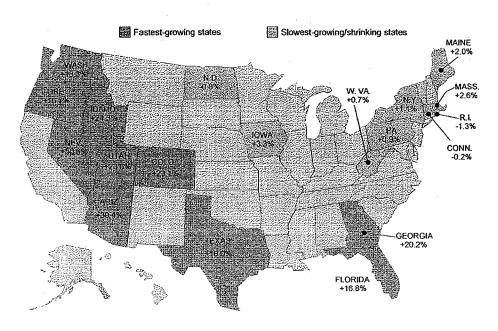


# Western Loads

- Population Growth
- Estimated Load Growth

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## A Country in Transition Percentage changes in population from April 1, 1990 through July 1, 1999

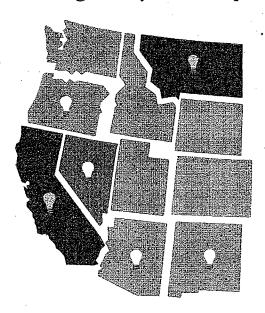


#### ecd-000670055.tif (3150x2400x2 tiff)

Estimated Ex	sceediance ac	ini Yeary	<b>(g</b> (0)'
	February =	Visitalis	April
Northwest Power Pool	7 111% a	3,0%	14%
Rocky Mountain Power Area	a 64%	6 1%	24%
Anzona - New Mexico	65%	6.6%	6.5%
California So Nevada	82%	4.2%	3 8%
WSCC Total	49%	41%	3.1%

Source: PIRA, April 2000 Western Grid Forecast

## Regulatory Landscape

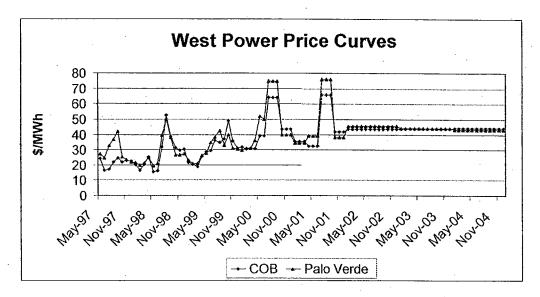


Generation Divestiture Implemented
Generation Divestiture Planned
No Divestiture Planned
Regional Transmission Organization
Independent Grid Operator Planned
Retail Access Implemented

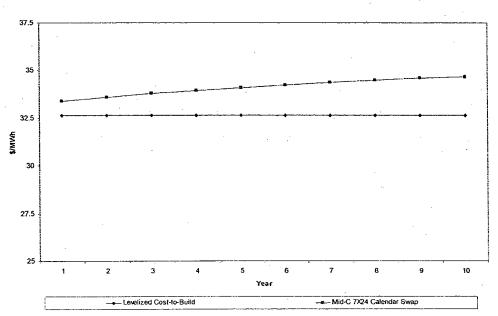
Retail Access Planned

## **Price Curves**



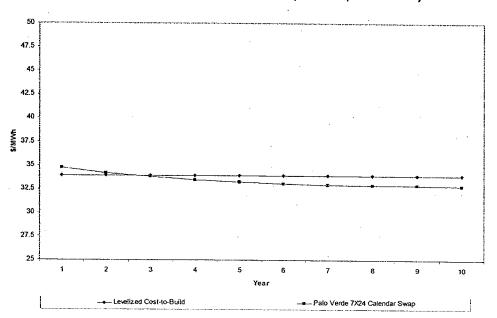


#### Northwest Cost-to-Build/Curve Comparison (2003 - 2012)



950049000-P

#### Southwest Cost-to-Build/Curve Comparison (2003 - 2012)



090029000-p:

# Cd-000670061

## **Trading Opportunities**

- Fundamental Analysis
- Services Desk

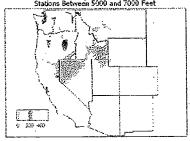
## Fundamental Analysis

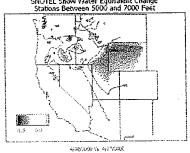
- Internet and California market generate large volumes of data
- Tactical research informs trading decisions
- · West Power is a solvable problem

#### ecd-000670063.tif (3150x2400x2 tiff)

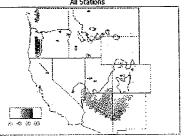
SNOTEL Snow Water Equivalent as Percent of Normal All Stations





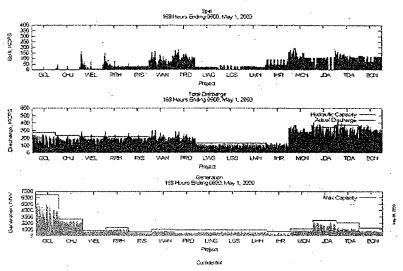


SNOTEL Daily Average Temperatures All Stations

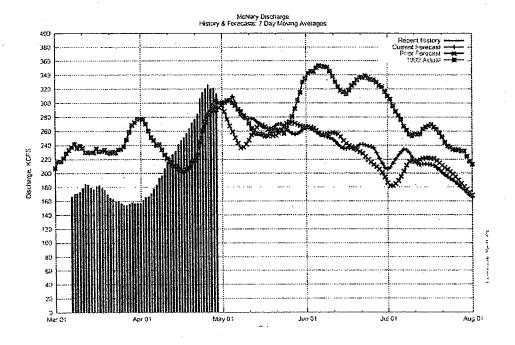


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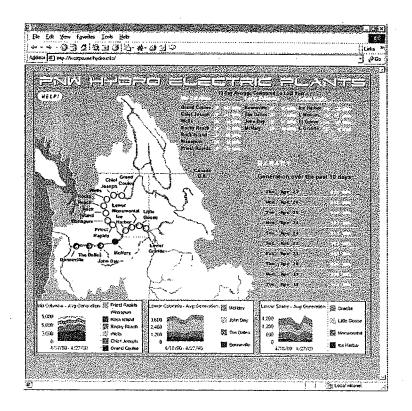




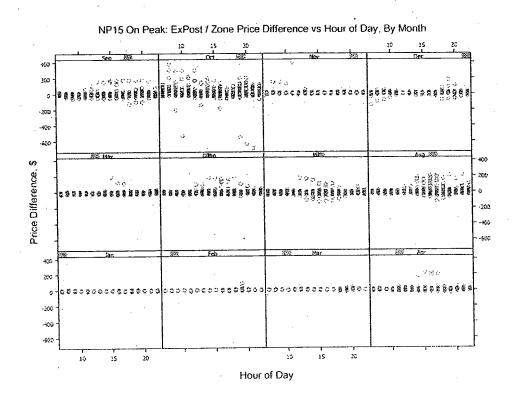




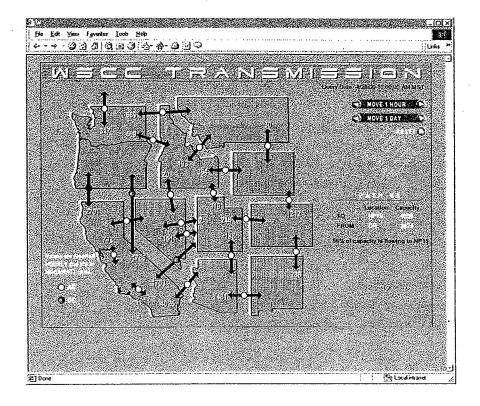
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#### ecd-000670067.tif (3150x2400x2 tiff)



#### ecd-000670068.tif (3150x2400x2 tiff)



## Services Desk: Filling a Market Void Benefits EPMI

- Market Value Proposition: Deregulating power markets requires huge investments in systems and people to interact with new market institutions. EPMI has invested in the best systems and people. Customers choosing EPMI as outsourcing partner.
- · EPMI Value Position:
  - Generates recurring earnings with little commodity risk
  - Amortizes EPMI investment in systems and people across services accounts
  - Fosters proprietary trading business and EOL activity
  - Provides valuable trading information

## **Services Desk Model**

Services .

Desk

#### Customers

# Montana > Northwest Imports/Exports > California Municipals > California Generators > Enron Energy Services > ENA Merchant Generation > Southwest/Mead Hub >

#### **ENA Function**

<	Middle Market Group
<.	Term Trading
<	Cash Trading
<	Real Time
<	Volume Management
<	Legal

#### Service Desk Network

**₩** 1008's

Publics

Generator

- ्र्यः Energy Service Providers
- ENA Merchant Generation



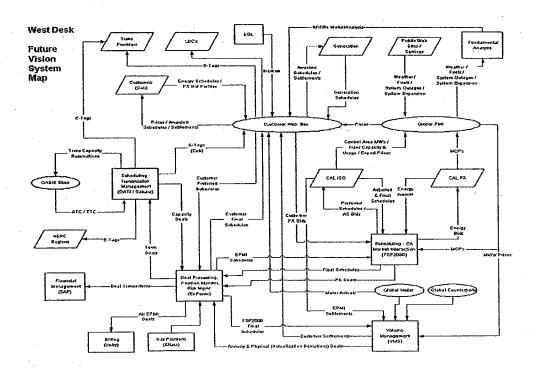
24-0006/00/1

## Resource Needs

Technology

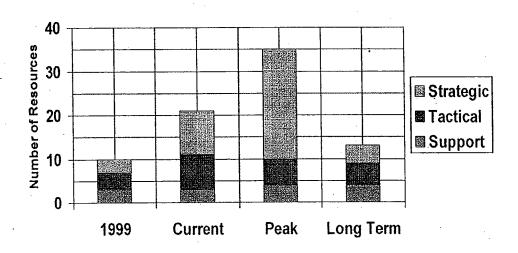
Cd-000670072

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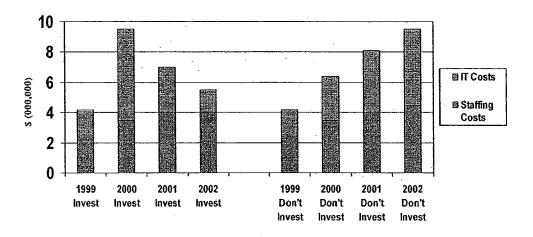


Cd-000670074

## **IT Staffing Requirements**



## **Investment Options**



ecd-000670076.tif (3150x2400x2 tiff)



### **Enron North America**

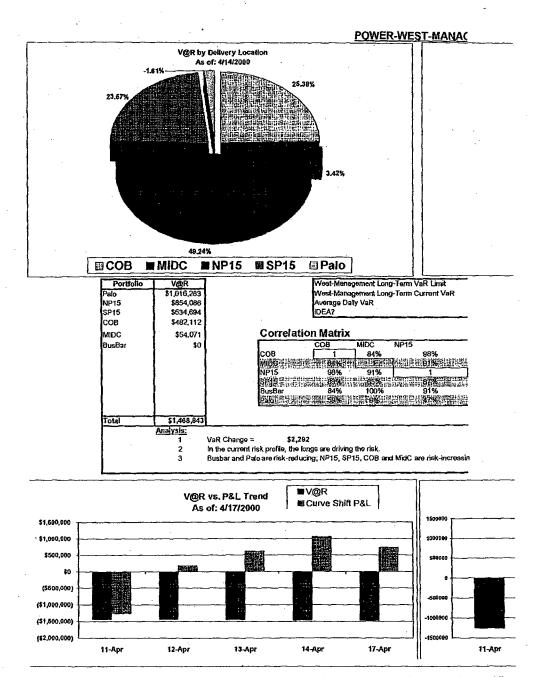
Docket UM 1002 WC/807 Witness: McCullough

#### BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

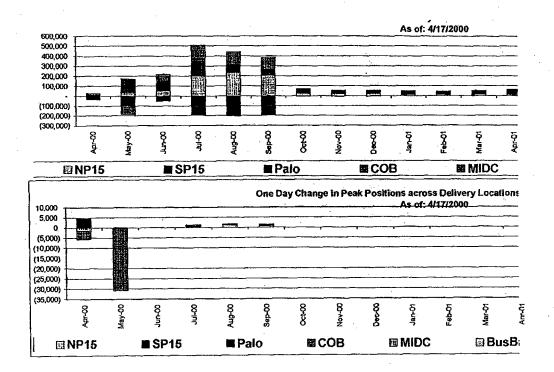
WAH CHANG

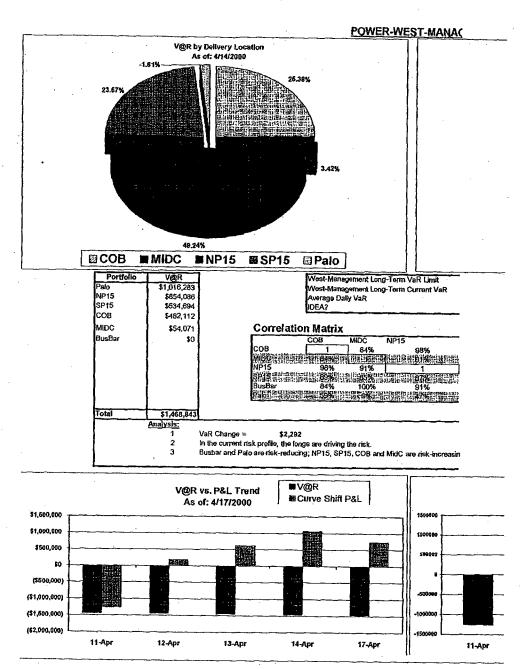
Enron Trading Hub Correlation Matrix

December 15, 2005



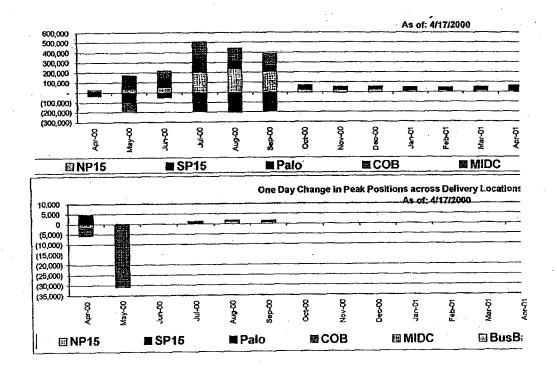
Peak Positions across Delivery Locations and Refe





Peak Positions across Delivery Locations and Refe

ECd-000566790



Docket UM 1002 WC/809 Witness: McCullough

## BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

#### WAH CHANG

Prepared Initial Tape Testimony of Barry E. Sullivan Witness for the Staff of FERC

December 15, 2005

#### Exhibit No. S-129

## FEDERAL ENERGY REGULATORY COMMISSION OFFICE OF ADMINISTRATIVE LITIGATION

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

PREPARED INITIAL TAPE TESTIMONY OF
BARRY E. SULLIVAN
WITNESS FOR THE STAFF OF THE
FEDERAL ENERGY REGULATORY COMMISSION



March 1, 2005

#### Exhibit No. S-129

# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

)	Docket No. EL03-180-000
)	
)	
)	Docket No. EL03-154-000
)	•
)	
)	Docket No. EL02-114-007
)	Docket No. EL02-115-008
)	
)	Docket No. EL02-113-000
)	
).	
	(CONSOLIDATED)
	)

Summary of the
Prepared Initial Tape Testimony of
Barry E. Sullivan
Witness for the Staff of the
Federal Energy Regulatory Commission
(Exhibit No. S-129)

Mr. Sullivan addresses specific excerpts of audio tapes concerning the Death Star market manipulation trading strategy which were produced during the Enron audio tape investigation undertaken by the Office of Administrative Litigation in Docket Nos. EL02-114-000, EL02-115-001, EL 02-113 and EL 03-180 et al.

Enron Power Marketing, Inc.	
Docket No. EL03-180-000 et al	•

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23

24

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Exhibit No. S-129 Page 1 of 16

1	Q.	Please state your name and business address.
2	A.	My name is Barry E. Sullivan. My business address is 888 First Street, N.E.,
3		Washington, D.C. 20426.
4	Q.	By whom are you employed and in what capacity?
5	A.	I am employed by the Federal Energy Regulatory Commission (Commission) as a
6		Group Manager in the Office of Administrative Litigation.
7 8 9 10 11 12	Q.	Are you the same Barry E. Sullivan that filed direct testimony on December 10, 2002, and supplemental direct and reply testimony on May 12, 2003 in the Portland General Electric Company proceeding in Docket No. EL02-114-000 and the Enron Power Marketing, Inc., proceeding in Docket No. EL02-115-001, and direct testimony on February 27, 2004 in the Enron Gaming Proceeding in Docket No. EL03-154-000 and prepared supplemental testimony on January 31, 2005 in this proceeding?
14	A.	Yes.
15	Q.	What is the purpose of your initial tape testimony in this proceeding?
16	A.	The purpose of my initial tape testimony is to present additional evidence
17		concerning EPMI energy trader audio tapes specifically related to the Death Star
18		market manipulation strategy. These audio tapes have been processed under the
19		direction of Mr. Patrick Crowley in the Office of Administrative Litigation from
20		EPMI audio tapes that were originally seized by the Department of Justice.
21	Q.	How is your testimony organized?

I will summarize the testimony that I have previously filed in the Enron

examples of audio tapes that identify or reference the Death Star market

proceedings before I discuss the audio tape evidence. I will identify specific

manipulation trading strategy. I will identify select audio tapes by date and time

#### Enron Power Marketing, Inc. Docket No. EL03-180-000 et al.

Exhibit No. S-129 Page 2 of 16

1		and audio file MP3 identification number. I will transcribe, and quote portions of
2		the conversations on the audio tapes for specific files that Staff has received
3		permission from the Department of Justice to use in this proceeding. There are a
4	٠.	number of other audio tapes that Staff has not yet received permission from the
5		Department of Justice to use at this time. I am attaching specific audio files related
6		to the Death Star scheme that we have permission to use from the Department of
7		Justice as Exhibit No. S-130. Mr. Crowley is providing a comprehensive list of
8		all the EPMI audio tapes that Staff has processed in two separate exhibits. Exhibit
9		No. S-123 relates to the EPMI Portland "Snohomish" tapes and Exhibit No. S-124
10		relates to the EPMI Portland "Enron" tapes. Finally, I am recommending that Staff
11		continue with a targeted investigation of the Enron trader audio tapes and that Staff
12		be allowed an opportunity to file supplemental tape testimony that divulges the
13		contents of the targeted tape investigation, after Staff receives permission from the
14		Department of Justice to disclose the contents of the tapes.
15 16 17	Q.	Before you explain the specific evidence you are testifying to in this prepared initial tape testimony would you please summarize your earlier filed testimony in these Enron proceedings?
18	A.	Certainly. I believe it would be clarifying, if I take a brief moment to describe the
19		four earlier rounds of testimony that I filed in these now consolidated proceedings.
20		I filed direct testimony on December 10, 2002, in Docket No. EL02-114, where I
21		explained specific evidence related to Enron's Death Star market manipulation
22		trading strategy which was designed to collect congestion charges from CAISO,
23		even though the Death Star scheme did not relieve congestion. And I explained

Enron Power Marketing, Inc. Docket No. EL03-180-000 et al.

Exhibit No. S-129 Page 3 of 16

1	and supported the asserted violations against EPMI, which Staff filed on
2	November 14, 2002. The specific violations against EPMI were:
3	1) that EPMI misrepresented the nature and amount of power EPMI intended to
4	sell into the California market, as well as the load it intended to serve.
5	2) that EPMI developed a scheme under which it created false congestion and
6	received payment for relieving the same false congestion on California
7	transmission lines. It implemented this scheme by arranging with its affiliate,
8	PGE, to schedule power to flow to PGE, through Washington Water Power, and b
9	scheduling redeliveries back to the Los Angeles Department of Water and Power
10	(LADWP). The redeliveries scheduled to LADWP were outside the supervision
11	and knowledge of the California ISO since EPMI utilized transmission capacity
12	which was outside the CAISO control area and not under the operational control o
13	the CAISO. I explained that these schemes were a direct violation of the CAISO
14	Tariff Sections MMIP 2.1, MMIP 2.1.1, MMIP 2.1.1.3, MMIP 2.1.1.5, and MMIP
15	2.1.3., and also constituted unjust and unreasonable practices under sections 205
16	and 206 of the FPA since they adversely affected energy markets in California.
17	EPMI undermined the Commission's authority to ensure just and reasonable rates
18	and practices and its intent to mitigate any potential for affiliate abuse in
19	authorizing EPMI's market based rate tariff. These schemes also violated Enron's
20	own "Conduct of Business Affairs, Procedures for Use of Communication Service
21	and Equipment," which states that communication services and equipment may no
22	be used for any illegal/criminal activity or any activity that violates any Company

#### Enron Power Marketing, Inc. Docket No. EL03-180-000 et al.

Exhibit No. S-129 Page 4 of 16

1	policy. The evidence that I produced in my earlier testimony demonstrated that
2	EPMI filed transmission schedules with the CAISO that clearly misrepresented the
3	nature and amount of power that EPMI really intended to flow from the CAISO to
4	a sink north of the California Oregon border. The schedules that EPMI filed with
5	the CAISO showed a net export of power from California when in fact this power
6	never left the State of California.
7	My rebuttal testimony that was filed on May 12, 2003 addressed issues discussed
8	in the direct testimony of Mr. Edward Kee for EPMI, and Dr. Richard Tabors for
9	Portland General Electric Company (PGE) filed on February 24, 2003. In
10	addition, I discussed additional evidence that supported the Staff's asserted
11	violations and specific charges against EPMI and demonstrated that the
12	conclusions and findings in the testimony of Mr. Kee and Dr. Tabors were
13	unfounded.
14	On February 27, 2004, in Docket No. EL03-154 et al., I filed direct and answering
15	testimony that also addressed specific issues related to the Death Star market
16	manipulation trading strategy. My testimony explained that I was also sponsoring
17	the testimony and exhibits that I filed in the earlier Portland General Electric and
18	Enron Power Marketing, Inc., proceedings in Docket Nos. EL02-114 and EL02-
19	115. In addition, I sponsored a number of additional exhibits that were originally
20	sponsored by other Staff witnesses in the earlier proceedings in Docket Nos.
21	EL02-114 and EL02-115. The Chief Administrative Law Judge merged the earlier
22	two proceedings into the current proceeding on January 26, 2004.

# Enron Power Marketing, Inc. Docket No. EL03-180-000 et al.

Exhibit No. S-129 Page 5 of 16

i	In my February 27, 2004 testimony, I reviewed the Commission's Show Cause
2	Order concerning EPMI's Death Star market manipulation trading strategy and the
3	fact that Enron had failed to demonstrate that power flowed under these Death Star
4	schedules. I clearly state that Enron failed to substantively respond to the
5	requirements of the Commission's Show Cause Order. I discussed the
6	misconceptions and mischaracterizations in the direct testimony of Dr. Acton
7	concerning the Death Star strategy and EPMI's market manipulation strategy. And
8	I recommended that EPMI (and/or its successor Enron company) be required to
9	disgorge all revenues associated with the Death Star strategy. I discussed
10	additional evidence that I produced in spreadsheets that detailed the scheduling for
11	the 17 days of Death Star schedules that were at issue in the earlier Portland
12	General Electric proceeding. I produced these 17 days of Death Star transmission
13	schedule records in Exhibit No. S-49.
14	And finally, on January 31, 2005 I filed supplemental testimony that adopted
15	specific portions of the earlier testimony of Staff witness Richard Mabry that was
16	originally submitted in Docket Nos. EL02-114-000 and EL02-115-001.

1

Exhibit No. S-129 Page 6 of 16

### TRADER TAPE EVIDENCE

2 3 4	Q.	Mr. Sullivan have you attempted to produce audio tape evidence on every possible Death Star type transaction that has been identified by all the parties in this proceeding?			
5	A.	No. Due to the overwhelming amount of audio tape evidence my goal in this			
6		round of testimony was to find specific audio tapes that support the evidence that I			
7		have previously filed concerning the 17 days of Death Star transactions between			
.8		EPMI and Portland General Electric Company (PGE). Snohomish witness Robert			
9		McCullough has provided a comprehensive list of all the Enron Death Star			
10		transactions in Exhibit No. SNO-740 which consists of 124 pages of detailed			
11		scheduling records for each identified Death Star transaction. The first Death Star			
12		transaction between EPMI and PGE, as contained in my Exhibit No. S-49,			
13		occurred on April 6, 2000. Unfortunately, the earliest Enron Portland audio trader			
14		tape available to the Staff dates from April 26, 2000, and at this time Staff is			
15		unaware of any Portland audio trader tapes prior to April 26, 2000. Mr. Forney			
16		and the real time desk traders had already executed at least four Death Star			
17		transactions before April 26, 2000 as shown in Exhibit No. S-49. It seems likely			
18		that audio trader tapes before April 26, 2000 would discuss the derivation of the			
19		Death Star strategy with Enron employees, PGE employees and other Death Star			
20		participants (LADWP transmission and Washington Water and Power).			
21	Q.	Please explain how you analyzed the first Enron Portland trader audio tapes.			
22	A.	Staff was able to analyze relevant portions of the Enron audio tape for April 26,			
23		2000. Staff witness Mr. Crowley explains the sampling technique that Staff			

Exhibit No. S-129 Page 7 of 16

· 1		employed for processing the overwhelming number of Enron audio tape files. I
2		was aware that April 26, 2000 was a day that Mr. Forney executed one of his
3		Death Star strategies so I conducted a separate targeted investigation for that
4		particular day. In addition, Snohomish Exhibit SNO-731 contains 115 pages of
5		attorney notes on Enron trader tapes (see McCullough prepared supplemental
6	•	testimony SNO-710 at page 69) which I reviewed for evidence of Death Star
7		activity on the Enron trader audio tapes. The attorney notes were useful because
8		they contained the time of the audio recording and usually the channel of the
9		recording. FERC Staff was able to listen to a number of the recordings that are
10		referenced on Exhibit SNO - 731 and as Staff witness Crowley explains we are
11		seeking permission from the Department of Justice to use these tapes as part of our
12		targeted investigation into the Enron trader audio tapes.
13 14	Q.	Please explain what targeted set of audio files you listened to that are referenced on Exhibit SNO-731.
15	Α.	There are a number of audio files that I listened to as part of our ongoing targeted
16		investigation of the Enron audio tapes. Page 89 of Exhibit SNO-731 describes a
17		sequence of audio tape recordings (call numbers 20 to 27) of John Forney putting
18		together a 29MW deal on April 26, 2000, which we know from Exhibit No. S-49 is
19		a Death Star deal. I listened to all of the tape recordings described on page 89 of
20.		Exhibit SNO-731. Page 8 of Exhibit SNO-731 describes a Death Star deal on May
21		1, 2000 at "Malin with Water Power - \$200 per hour" and this deal is also listed as
22		a Death Star transaction in my Exhibit No. S-49. I listened to all of the tape

Exhibit No. S-129 Page 8 of 16

recordings described on page 8 of Exhibit SNO-731. Page 11 of Exhibit SNO-731 1 describes another sequence of conversations putting together a Death Star deal on 2 May 2, 2000 for 15 MW for hours 12-22 and this deal is also listed as a Death Star 3 transaction in my Exhibit No. S-49. Sue at Washington Water Power and Steve at 4 PGE are listed and the deal loops back to Malin and down on LA transmission to 5 6 Meade on the AC line. I listened to all of the tape recordings described on page 11 of Exhibit SNO-731. Pages 15 and 16 of Exhibit SNO-731 describes another 7 sequence of Death Star conversations for May 3, 2000 for 13 MW for hours 10-17. 8 and this deal is also listed as a Death Star transaction in my Exhibit No. S-49. 9 Page 16 has an explanation of a call to PGE and "ISO to sink – but don't want 10 them to know that." I listened to all of the tape recordings described on pages 15 11 and 16 of Exhibit SNO-731. Page 22 of Exhibit SNO-731 describes another Death 12 13 Star (Buy Resale) conversation on May 4, 2000 for 10 MW and this deal is also listed as a Death Star transaction in my Exhibit No. S-49. I listened to all of the 14 tape recordings described on page 22 of Exhibit SNO-731. FERC staff has all of 15 16 these audio tape recordings saved as MP3 files which we will make available to the parties as soon as the Department of Justice gives us permission to do so. I am 17 unable at this time to discuss these tape recordings in detail because the 18 Department of Justice has not yet approved FERC Staff disclosure of the 19 20 information on the tape.

Enron Power Marketing, Inc.
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Exhibit No. S-129 Page 9 of 16

1	Q.	Mr. Sullivan, have you been able to identify additional audio tape
2		conversations concerning the other Death Star transactions that you show on
3		Exhibit No. S-49?
4	A.	There were additional Death Star transactions between Enron and PGE as shown
5		in Exhibit No. S-49 on May 5, May 9, May 10, May 11, May 12, May 15, May 31
6		and June 6, 2000. I am still reviewing the Portland Enron tapes to find additional
7		evidence. These additional tapes will be part of the targeted review that Staff is
8		currently conducting and Mr. Crowley describes in his testimony.
9 10	Q.	Mr. Sullivan, what Death Star related audio tape files has the Department of Justice approved for release in this current round of testimony?
. 11	A.	Exhibit No. S-130 contains Death Star audio tape files that the Department of
12		Justice has allowed Staff to use in this proceeding.
13 14 15	Q.	Please explain the additional trader tape evidence you are presenting concerning the Death Star market manipulation trading strategy in this prepared initial tape testimony.
16	A.	Audio file 00024397.MP3 (August 5, 2000) is a discussion between John Forney
17		and Stan (Enron employee) at the EPMI trading desk which clearly shows that
18		Enron was running a Death Star scheme.
19		The audio tape at minute 2:42 records:
20 21		John (Enron) (2:42): Were we importing or exporting or were we just in the middle of a chain or how'd that work?
22 23 24		Stan (Enron) Yea. We were just in the middle of a chain on two schedules and uh we also had they had the Deathstar going. So that got. Got pretty much got wacked. That was. That's really about it.
25		John: OK

1

Stan: No real. No other real ramifications.

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	·
2	John: Yea
3	Audio file 00127266.MP3 is a discussion between Jeff (Enron employee) and an
4	employee at Bonneville. The conversation takes place on August 04, 2000,
5	starting at 01:55:20:74 PM and ending at 02:00:50:47 PM which states:
6 7	Jeff (Enron): PAC can't pick it up at MID-C. They'll be overscheduled at Malin. So your very wonderful plan is not going to work.
8 9 10 11	Bonneville (inaudible): Ok. So. Ok. So if I take a schedule from Waterpower to Portland, that's where it'll end. I can't show a Waterpower to Portland and Portland to PAC at the ISO. I mean at Malin at Cobb. So I
12 13	Jeff: I called Portland and they could they have the transmission to put that in as well.
14	Bonneville: They have the transmission to do what?
15	Jeff: To go from John Day to Malin.
16	Bonneville: To John Day to Malin to give it to PAC?
17	Jeff: No. It would not be going to PAC in that case.
18	Bonneville: Where would it be
19	Jeff: It would be going to LA.
20	Bonneville: It would be going to LA on Portland's transmission?
21	Jeff: Yes
22 23	Bonneville: OK. So all I get is a schedule in the Northwest from uh from Water Power to Portland on on Snohomish?
24	Jeff: Yes
25	Bonneville: OK. And then from Portland to LA on their transmission?
26	Jeff: That is correct.

Exhibit No. S-129 Page 11 of 16

1		Bolhevine: OK. Flow much is that?
2		Jeff: It's uh 45 Megawatts.
3		Bonneville: 45 for hour the hour we're in.
4	•	Jeff: Yes
5	٠	Bonneville: OK. Let me see if I have an accountyou said it's Snohomish paying the transmission?
7		Jeff: Yea. I'm buying it from Snohomish so yes.
8		Bonneville: And then from Water Power to LA on Portland's transmission?
9		Jeff: That's correct.
10		Bonneville: and that's on the AC
11		Jeff: That's correct.
12 <sup>.</sup>		Audio file 00127274.MP3 (August 11, 2000) is a request for a buy/resale with
13		Avista Water Power from Jesse at Enron for 45 MW taking it to Portland system
14		and going down to LA which appears to be a Death Star.
15 16 17 18 19 20	Q.	Mr. Sullivan, Snohomish Exhibit SNO-731 on page 104 of Exhibit SNO-731 describes a conversation on April 28, 2000 at 8:31 am between the City of Redding and Enron where they want to put a procedure in place for congestion. A follow up conversation is described on page 106 of Exhibit SNO-731 on April 28, 2000 at 2:03 pm between John Forney and Paul Cummings for the City of Redding. Have you listened to the audio tape recordings that are described in Exhibit SNO-731?
22	A.	Yes. According to the written comments on Exhibit SNO-731 at page 104 the
23		conversations focus on "loop congestion and want to put a procedure into place for
24		congestion" and at page 106 the conversations focus on "congestion – how to
25		make money on it" and "project Loop and Death Star" and "Forney wants to

Exhibit No. S-129 Page 12 of 16

1 .		communicate the project to his guys." I have listened to all of the audio tapes			
2		surrounding these conversations.			
3	Q.	Has FERC Staff been allowed by the Department of Justice to produce any audio tapes into evidence concerning these conversations?			
5	A.	The Department of Justice has allowed FERC staff to use audio file			
6		00218778.MP3 (April 28, 2000) which is the discussion between John Forney and			
7.		Paul Cummings from the City of Redding that is described on page 106 of Exhibi			
8		SNO-731. The Department of Justice has not yet approved FERC Staff disclosure			
9		of audio tape information that is described on page 104 of Exhibit SNO-731.			
10		A transcript of the conversation on the tape that is described on page 106 of			
11		Exhibit SNO-731 and which Staff was given permission to use follows:			
12		John: This is John Forney with Enron. (side conversation)			
13		Paul: Hi John. (17:30)			
14		John: Hey there how is it going			
15		Paul: Good how are you? You haven't gone home yet.			
16 17		Paul: (18:35) I just wanted to double check that we have something on the table for if and when congestion hits.			
18 19		John: OK what do you want to call this project – we have to have a catchy name for that?			
20 21		Paul: Project – ah - I was going to say project loop – but I don't want that to go out in the world			
22		John: How about you know something friendly like Death Star?			
23 24 25		Paul: (Laughter) How about reduce the debt - debt star – because we are trying to reduce our debt here. Whenever we make money it reduces our debt.			
26		John: Great –debt reduction – So ah – Doctor - as in debt reduction.			
27 28	-	Paul: Yea. Anyway somewhere - we are just basically ready to go with it. So now the next thing is to identify congestion. I have sat and looked at all			

Exhibit No. S-129 Page 13 of 16

1 2 3	the congestion back a ways - it is kind of a messy little problem - I am going to get my IT guy to start plotting it of course and do something fun with it.
4 5	John: Yea. I think – that there could be – I don't know our short term view is there won't be much.
6	Paul: This weekend.
7 8 9 10 11	John: Yea. But I would like to communicate the project to my guys in case there is a derate. Now regardless of what happens with water – what happens with lack of load if we will – there could always be a line outage which would cause congestion and I would feel bad if there was \$300 of congestion and I left for the weekend and went to Seattle and having a lot of fun and no body knew how to do that.
13 14	Paul: Well and I have got here I looked at - I have Lyle here now and I am going to put him on the speaker phone. Hang on.
15	Paul: You there.
16	John: I am here.
17 18 19 20 21	Paul: Ok anyway I looked at the congestion for when the line went down on 14 <sup>th</sup> 15 <sup>th</sup> that was the last time we really had any significant congestion seems like – I only see one hour of \$300 there are a couple of hundred dollar hours but it plugs along at 26 and 30 and 20s for quite awhile – so that is what we are going to target for. Right?
22	John: Yes. That is it. Just let it roll.
23 24 25 26	Paul: Ok and basically all we need is – again we'll show Pac Corp West into us and then just a SP15 (unintelligible) treat it just normally what we are doing – you are not just going to go to load with it you are going to an export.
27 28 29	John: Yea. And what I am going to do – what I like to do is put in a buy from you – a buy from you from Redding and then a sale to Pac and if I sell to Pac for \$20 you buy from Pac at \$19.
30	Paul: Yea. Whatever they want me to.
31 32 33 34	John: Yea. And the project loses \$1 with Pac. And then it goes around - they give you energy at Malin you take it down to Tracy on your ETC - we do a (unintelligible) SC trade and then I guess at the end of the day - I am trying to think of - at the end of the day.
35 36	Paul: Ok so the problem we got - why don't you sell at zero dollars back to us.
37	John: If they are agreeable to doing that - but I doubt they will be

### Exhibit No. S-129 Page 14 of 16

1	agreeable to do that			
2 3 4 5	Paul: Cause I am going to pay them on my end - it doesn't matter whatever you pay - I am paying them — ok I should call them and figure out how we are going to do it — I have talked to them but I haven't talked to them exactly how we are going to bill it.			
6	John: Right			
7	Paul: They will do it for us – I just don't know how they are going to do it.			
8	John: I would prefer to sell it to them at a market price			
9	Paul: Oh that looks better			
10	John: It looks better for me.			
11 11 12	Paul: Ok – so you are just going to sell it to them at a market price which is whatever we decide.			
13	John: Yea.			
14 15	Paul: Ok – but then you have – then there is a bill from them to you for x amount of dollars. Right			
16 17 18.	John: Correct – they will pay me and then you buy it from them – we net out a dollar from them bottom line. SC trade - we have an export sale to Pac West – Pac West to Redding.			
19	Paul: And then they are just going to sell to us.			
20 21 22	John: Yup. Redding to (unintelligible) Malin to Tracy and we give it to Brother Wamps and SC back. Ok so the only question in my mind is the sale to Pac and I think that is a very minor issue here			
23 24	Paul: I have got to call Gary Eldridge - have you talked to him on that – have you talked to Gary Eldridge?			
25 26	John: I have not – I know who he is – but I haven't discussed this project with him – I guess you know maybe the communication			
27	Paul: Let me give him a call here – if I get a hold of him –			
28	John: Just ask how they want to see it.			
29 30 31 32 33	Paul: Yea I will ask them how they want to see it - and when we are going to do it. We will take care of the money with them - cause whatever we - let me put together the loop - I thought we would deal with just zeros on the dollars but you want to deal with twenties or twenty fives or something like that			
34	John: Right - because I have a big hairy settlements deal here.			
35	Paul: Oh – ok let me talk to him			

Exhibit No. S-129 Page 15 of 16

1		John: Ok – I will be here.			
2		Conversation ends at (25:25)			
3		New conversation begins with Paul again at (25:26)			
4		John: This is John.			
5		Paul: John Paul – Ok Pac West I am assuming it is Pac West			
6		John: It is			
7 8 9		Paul: Ok anyway they are – you just name a number and I said 20 bucks – that is fine with them. And they just turn around and mark it up and sell it to me.			
0		John: Very good			
1		Paul: So all the paper work – the billing will work that way – and they have been doing it for MID - so they are like totally into the groove.			
3		John: Very good			
4		Paul: And that is where we simply thought - why try to reinvent the wheel - they are already doing it so that is why we jumped on that			
6		John: Ok great			
17		Paul: Ok - does that work for you			
8		John: That works for me - I will pass the word			
19 20		Paul: Ok – so you know I guess our next challenge is to get some congestion (laughter)			
21		John: Ok – I will try to cause some			
22		Paul: Yea - just fly the plane down and let her drop (laughter) Ok - Bye			
23		John: Ok thanks. (Conversation ends at 26:32).			
24 25 26	Q.	Mr. Sullivan, it is clear from your testimony that Staff has additional Enron trader audio tape information that it would like to submit as evidence in this proceeding. Do you have a recommendation at this time?			
27	A.	Yes. Mr. Crowley explains in his testimony that the Staff has always intended to			
28		do a targeted investigation into the Enron audio tape files. I have begun this			
29		process for the Death Star market manipulation strategy but I have not finished. In			
30		addition, in this targeted part of the investigation. I have been able to find a			

Exhibit No. S-129 Page 16 of 16

- significant number of Death Star related audio files but Staff has not received
  permission from the Department of Justice to use these files in this round of
  testimony. I would like to present this additional material once our targeted
  investigation is complete and the Department of Justice has given Staff permission
  to release these audio files.
- 6 Q. Does this conclude your testimony in this proceeding?
- 7 A. Yes, it does.

# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

)	Docket No. EL03-180-000
)	
)	÷.
)	<b>Docket No. EL03-154-000</b>
)	
)	
)	Docket No. EL02-114-007
)	Docket No. EL02-115-008
)	•
)	Docket No. EL02-113-000
)	
)	
	(CONSOLIDATED)
	) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) ) )

#### AFFIDAVIT OF BARRY E. SULLIVAN

I, <u>Barry E. Sullivan</u>, do hereby declare that under penalty of perjury that I am the author of the foregoing Testimony, that the facts set forth herein are true and correct to the best of my knowledge, and that if asked the questions contained in the text, I would give the answers contained in the Testimony.

Bang E. Dullin

March 1, 2005

Docket UM 1002 WC/815 Witness: McCullough

### BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

#### WAH CHANG

E-mail from Tim Belden re "Out of Market", Dated May 23, 2000

December 15, 2005

From:

Tim Belden/HOU/ECT

Sent:

Tuesday, May 23, 2000 1:34 PM

To:

kfluckiger; zlazic; twinter

Cc:

kalmeida; David Parquet/SF/ECT; Susan J Mara/SFO/EES

Subject:

**Out of Market** 

I just finished talking with Zora about the Out of Market activities yesterday and thought that it would be a good idea to put my thoughts into an e-mail. It appears as though the MW that you procure out of market end up suppressing the ex post price. For example, Enron sold the ISO 100 MW for \$750/MWh during hours 17, 18, and 19. It was our impression that the ISO was procuring large volumes of energy out of market during these hours. Yet the ex post price for these hours settled at \$379.29, \$300.00, and \$119.77 respectively. Every MW that you purchase out of market reduces the number of MW that must be procured through the BEEP stack. Reducing the number of MW procured through the BEEP stack naturally puts downward pressure on the ten-minute and ex post price. Yesterday's prices support this theory. We saw this happen in the summer of 1998 as well. The result is that you harm providers of energy in-state. This could be instructed or un-instructed deviations. Yesterday we had nearly 800 MW of uninstructed generation in the state (in the form of over-scheduled load). Your out of market calls, coupled with the way that you perform ex post pricing, hurt us and everyone else who provided energy within the state to you in real time.

If you value power at \$750/MWh in the bilateral market, then your BEEP price should be \$750 as well. This is the proper price signal as the marginal resource in the state is \$750. Because of timing issues and software inflexibility I understand that your BEEP stack can't reflect this. In essence, you are taking \$750/MWh power and pricing it into the BEEP stack at \$0. There is a simple fix here. You could simply set the Target Price to \$750/MWh in any hour that you procure energy out of market for reliability reasons. You have proven before that the Target Price can be changed quickly and unilaterally.

We know that you have to place reliability first on critical days. I have no problem with the ISO procuring MW's out of market when the need is there. There is a simple way to send the proper price signal to the entire market through the Target Price. I recognize that this is politically challenging. But these prices are real and are driven by scarcity. Your reliability problems over the next couple of years will be a direct result of too little investment in new generation. Prices need to reflect market conditions in order to incent new generation. I encourage you to stand up to your slogan "Reliability through markets" and adjust your target price methodology or your ex post pricing so that in the hours of the greatest scarcity the ISO pays generators the proper marginal price.

Thanks for your consideration of this matter. Call me at 503-464-3820 if you would like to discuss.

Docket UM 1002 WC /823 Witness: McCullough

### BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

WAH CHANG

City of Redding Conversations

December 15, 2005

Sal

Ok.

Gar

Uh, did you talk to PAC already.

Sal

Not yet, I'm going to call em right now. It's been real hectic over here. I got to call my SC too and

get this in.

Gar

Cool.

Sal

Eleven, twelve, one, two three, yeah, ok.

Gar

Alright.

1105

Chuck

Hello, this is Chuck.

Sal

Chuck, this is Sal from City of Redding.

Chuck

Hi Sal from City of Redding. How are you?

Sal

Good, were you guys expecting us to call?

Chuck

No, I wasn't as a matter of fact. But since you're here ...

Sal

You're kidding me. We've got a situation where we have a previous agreement where we'd buy

energy from you and then we, you guys would purchase it from Enron

Chuck

Ok.

Sal

And we'll purchase it from you.

Chuck

Uh huh. Ok.

Sal

I've got 20 megawatts I'd like to purchase from you.

Chuck

Ok, is that coming out of the ISO or is Enron going to contact me?

Sal

Will it be coming out of the ISO?

Chuck

Right. You don't know right. You have Enron call me so I know who's generating it ok.

Sal

Ok. Actually I think uh, they're counting on you as a generator.

Chuck

I don't think so.

Sal

No, ok, maybe they'll be the generator.

Chuck

No, I'm not generating it.

Sal

Ok.

Chuck

Just have em give me a call. Yeah, we've done this before.

Sal

Yeah, I know we've done a few times, but it hasn't been too often.

Chuck

Yeah, no, I was working one day and we did it, so just make sure you get Enron on the stick and call me. I think he goes out and picks up from whoever. I'm not sure what the deal is, but last time

I did it, it was coming out of the PX so.

Sal

Ok.

Chuck

Alright sir.

Sal

So, let's see. Should we go ahead and set up the, or you want Enron to call you first?

Chuck

Enron better call me first because I don't know where the source is. There's no problem giving it

	to you, so WC/82	
Sal	Ok Chuck, I'll have em give you a call.	of 2
Chuck	Hey guy, thanks.	-
Sal	Thanks. Bye.	
1108		
Les	Enron Les speaking.	.:
Sal	Les, this is Sal, City of Redding.	
Les	Hey.	
Sal	Hey, on that energy that we do for the congestion,	
Les	Ok.	
Sal	PacCorp needs to know who the generator is.	
Les	Ok.	
Sal	Can you call them?	
Les	I surely can.	
Sal	And work that out.	
Les	I will.	
Sal	Thank you Les.	
1112		
Sal	Redding Electric this is Sal.	
Pete	Hi Sal, Pete and Puget.	
Sal	Hi Pete.	
Pete	Got anything for hour 13?	
Sal	Oh man, let's see her. 13, um. Let me punch some numbers here. Uh, I don't think so	Pete, it
	doesn't look like it.	
Pete	Ok.	
Sal	Ok, thanks for calling.	
Sal	Ok, bye.	
1114		
Pete	Puget Pete.	
Sal	Pete, this is Sal again. Hey, did you get your numbers in already?	
Pete	Um, yeah, I need some more,	
Sal	I think I can get you 10, 10 megawatts looking up the numbers here, but prices have really	y come
	up down here.	
Pete	What kind of price?	
Sal	We're looking at 100 mil energy.	
Pete	I'll put it in.	

Docket UM 1002 WC/827 Witness: McCullough

### BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

### WAH CHANG

Presentation by Tim Beldon, dated March 25, 2001

December 15, 2005

ecd-000646180.tif (3150x2400x2 tiff)

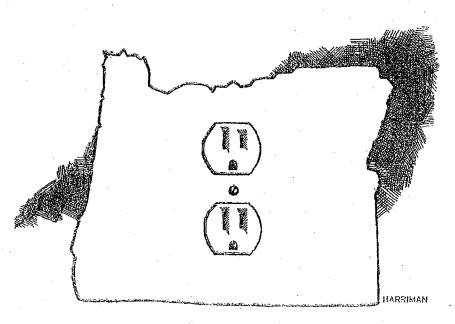
# Fundamental Supply Factors Driving Current Market Prices

Center for Public Utilities Conference March 25, 2001

> Tim Belden Managing Director Enron North America



ecd-000646181 tif (3150x2400x2 tiff)



THE VIEW FROM CALIFORNIA Current Issues Challenging the Utility Industry Conference

-2

# 3d-000846182

### The Missing Links

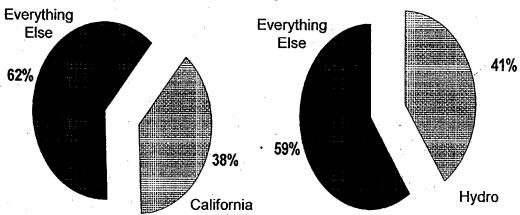
- ◆ The relationship between Northwest hydro output and the California crisis.
- ♦ The pricing of storable commodities.

Current Issues Challenging the Utility Industry Conference

-3

California's Proportion of 1999 WSCC Demand

Hydro's Proportion of 1999 WSCC Capacity



Current Issues Challenging the **Utility Industry Conference** 

ecd-000646184.tif (3150x2400x2 tiff)

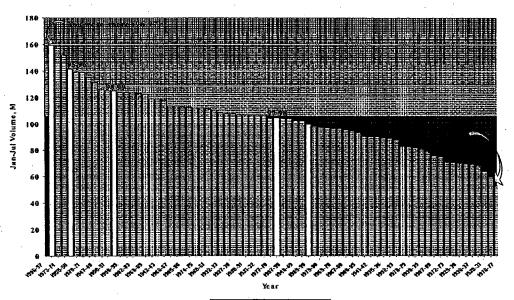
# Have We Been Fooled by Unusually Strong Hydro in Recent Years?

Volume Runoff Percent of Normal

	Columbia River	California
2001	55%	.80%
2000	93%	94%
1999	116%	108%
1998	98%	153%
1997	152%	84%
1996	138%	129%

Current Issues Challenging the Utility Industry Conference ecd-000646185.tif (3150x2400x2 tiff)

### Historical Volume Runoff at The Dalles

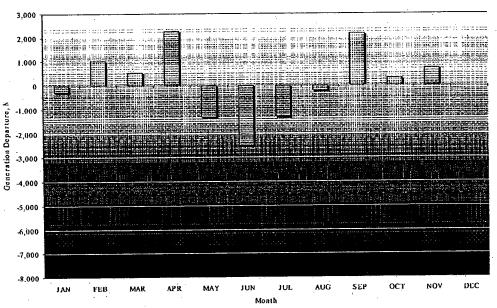


Current Issues Challenging the Utility Industry Conference

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ecd-000646186.tif (3150x2400x2 tiff)

#### Northwest Hydro Production: Last Year Actual vs. Normal

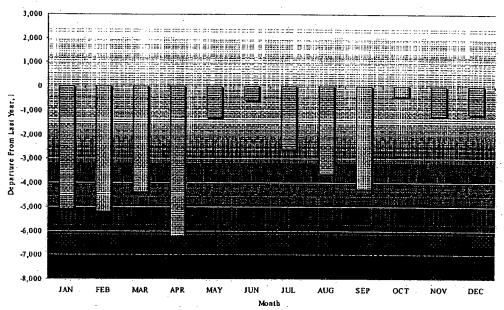


Current Issues Challenging the Utility Industry Conference

-7

#### ecd-000646187.tif (3150x2400x2 tiff)

#### Northwest Hydroelectric Production: 2001 Forecast vs Last Year Actual

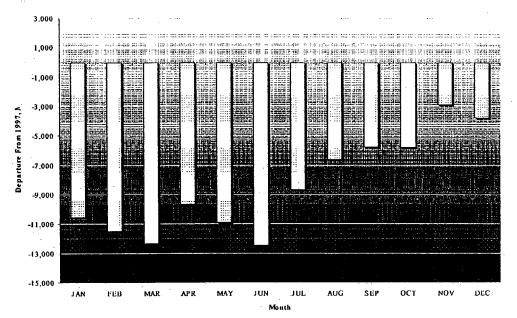


Current Issues Challenging the Utility Industry Conference

-8-

ecd-000646188.tif (3150x2400x2 tiff)

#### Northwest Hydroelectric Production: 2001 Forecast vs 1997 Actual



Current Issues Challenging the Utility Industry Conference

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# Decreased Hydro Results in Fewer Imports into California

◆ Annual average MW

Current Issues Challenging the Utility Industry Conference

-10-

# Decreased Hydro Causes Increased Gas Generation in California

◆ Scatter plot of June through February Year on Year hydro changes vs. Year on Year gas changes.

Current Issues Challenging the Utility Industry Conference

-11

ecd-000646191.tif (3150x2400x2 tiff)

# Decreased Hydro has Tremendous Impact on Prices

- ♦ Higher Thermal Forced Outages
- ♦ Higher Gas Prices
- ♦ Higher NOX Prices
- ♦ NOX related Generation Limitations

Current Issues Challenging the Utility Industry Conference

# NOX Limited Plants and Hydro Are Both Storable Commodities

- ◆ Peaking Plants in Southern California are Limited to 800 Hours per Year.
- ♦ BC Hydro Can Store for More than a Year.
- Northwest Utilities Can Store for One Week to Several Months.

Current Issues Challenging the Utility Industry Conference

# How Do You Price a Storable Commodity?

- ◆ Current Offer = NPV (Highest Forward Price)
- **→** Brings Off-Peak and Peak Prices Together
- ♦ Creates peak summertime prices throughout the year

Current Issues Challenging the Utility Industry Conference

-14-

Cd-000646193

ecd-000646194.tif (3150x2400x2 tiff)

### Conclusions

- ♦ Hydro Fundamentals Explain Current Prices.
- ◆ Current Studies Have Not Addressed Impact of Hydro.
- ◆ Current Studies Use Marginal Cost and Don't Consider Storage Pricing.
- ◆ Things Will Get Worse Before They Get Better

Current Issues Challenging the Utility Industry Conference

Docket UM 1002 WC/834 Witness: McCullough

### BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

### WAH CHANG

Bill Williams (Enron Email), dated August 30, 2001

December 15, 2005

SDOC NO = FROM:

TO:

2155

Williams III. Bill

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=BWILLIA5>

Anderson, John

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Janders3>, Bland,

Todd <Todd.Bland@ENRON.com>, Dean, Craig <Craig.Dean@ENRON.com>, Guzman, Mark

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Mguzman3>,

Harasin, Leaf

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Lharasin>, Linder,

Eric </O=ENRON/OU=NA/CN=RECIPIENTS/CN=Elinder>,

Merriss, Steven

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Smerris>, Meyers. Bert </O=ENRON/OU=NA/CN=RECIPIENTS/CN=Bmeyers>.

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Mmier>, Porter, David V. </O=ENRON/OU=NA/CN=RECIPIENTS/CN=Dporter3>,

Presto, Darin

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Dpresto2>, Slinger,

Rvan </O=ENRON/OU=NA/CN=RECIPIENTS/CN=Rslinger>,

Solberg, Geir

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Gsolber>, Symes, Kate </O=ENRON/OU=NA/CN=RECIPIENTS/CN=Ksymes>,

Williams III, Bill

</O=ENRON/OU=NA/CN=RECIPIENTS/CN=Bwillia5>

DATE = TIME:

08/30/2001 15:08:47 WILLIAMS-W3

ORIGIN: SUBJECT:

EOL Deal entry and status update. \ExMerge - Williams III, Bill\Sent Items

FOLDER: MESSAGEID:

758b31d0db7d0246879a52e83fed9e07031371@napdx-

msmbx01v.corp.enron.com

BODY:

Group,

We are continuing to refine our deal entry techniques and spreadsheet techniques. We are having great success with EOL so far. For further clarification.

- 1. ALL DEALS UNDER ST-WHOURLY-except a lending/parking deal or cut. For example if we are lending with ST-SW and we buy for them in NP-15. The buy in NP-15 is under ST-WHOURLY, the EPMICALPOOL Buy/Resale from NP-15 to FC345 is under ST-WHOURLY, the INTER-DESK sale is made under ST-WHOURLY (at the end of the day-see #3), and the sale to EPE is under ST-SW. The export in CAPS is also under ST-SW.
- 2. ONE DEAL FOR AN ON-PEAK or OFF-PEAK PURCHASE or SALE .-- For example one deal for a sale to the imbalance, one deal for a sale to EPE
- 3. ONE DEAL FOR AN INTER-DESK SALE or PURCHASE--done

WC/834 Page 2 of 2

by the NIGHT SHIFT at the weighted average price for the entire strip, transmission costs should be included. We are just averaging the purchase price or sale price for specific deals. (see ST-WBOM SP-15 section of AUG TRADING sheet on 08/29/01 for an example)

- 4. INC SHEETS MUST BE MAINTAINED, DEALS ENTERED AND ROUTED EACH HOUR--only way to stay ahead
- 5. WE ARE GENERATING SIGNIFICANTLY MORE REVENUE AND PROFIT TRADING WITH EOL (over \$130,000 in the last 5 days alone—does not include congestion revenue!)--530+ trades, 13,100 extra mws traded with EOL in 8 days.
- 6. MEETING ON TUESDAY 09/04 at 4PM

Finally, I will be out of the office for Friday and will be in Seattle through Sunday. You should be able to reach me on my cell phone (503) 887-3449. If you can not reach me, please refer questions regarding trading to Ryan Slinger, (503) 789-1306.

Thanks for the continued hard work and attention to detail,

Bill

Docket UM 1002 WC /836 Witness: McCullough

# BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

### WAH CHANG

Reliant Trader Conversations Dated June 19, 2000; June 20, 2000; June 21, 2000; and June 23, 2000

December 15, 2005

#### June 19, 2000, 14:03

Broker 1:

Hey, what's up?

Reliant Trader 1:

Hey, not much. Hey, what do you think about this? Are people just

backing up or we hitting stop-loss limits and people are bailing?

Broker 1:

There are some people bailing, there's no two ways about it, I mean, I'm watching a couple people definitely get puked out. Um, there is, you know, I, and, what the problem is is like one of the big problems is AEP has been selling, going short in my opinion, I think he's going short. I'm

not a hundred percent positive of that . . .

Reliant Trader 1:

Um huh.

Broker 1:

And he's like, you know, being all Mr. Big Tough Guy because there's no

Schwarz ... and knowing, knowing—

Broker 1:

—no one's stepping up to challenge him.

Reliant Trader 1:

Right.

Broker 1:

And it's not, and that Matt and Schwarz are out, who normally, you know, keep him in check because he won't take them on and no one else wants to

step up to the plate against him, so . . .

Reliant Trader 1:

Right so it's pretty much AEP out there just seeing how far he can push it

you think?

Broker 1:

Yeah, that's pretty much it.

Reliant Trader 1:

Okay. Matt will be back Wednesday? I mean, what do you think-

Broker 1:

Uh yeah on Wednesday. . . . Not any more.

Reliant Trader 1:

Okay.

Broker 1:

I don't have any idea.

Reliant Trader 1:

Because it's come down a lot and they're still long.

Broker 1:

Yeah I, I mean, I have no f\_\_ing idea what they're going to do. You know that Enron's long, I mean, I would think that, that they're gonna probably, I would, I, my opinion is they're gonna run it back up, I mean, I think that there's, I, if it was me, I'd be buying in here, you know, like I would probably be trying to buy Q2 Palo at 93 dollars. I'd be trying to buy July Palo at 88 and they keep, they keep Q4s I would try to buy 50 bucks. Those would be kind of my levels, that's, that would be my levels

if I was . . .

Reliant Trader 1: Right. Yeah, we're looking at some new stuff right now I'm kinda ...

They are kind of nervous over here. So I was trying, they were asking me questions, I'm like, well, I'm going to call you and see what you thought about, where, you know, we were just getting puked out because the

people are hitting limits.

Broker 1: I mean, I don't know if, what, what you think, if you think you can hold

on, honestly, until Matt comes back. I think it's probably worth it and you

mean they want you to get out of some stuff?

Reliant Trader 1: No, I mean, well, no, because I told them I won't because I'm not going to

go across these bid offer spreads, c'mon.

Broker 1: I don't blame you.

Reliant Trader 1: As soon as you hit a bid, it's gone They're running.

Broker 1: I mean, if anything, maybe you might want to purchase a couple of puts

just in case.

Reliant Trader 1: Yeah.

Broker 1: Well, I mean, you may want to talk to those guys about maybe some

options.

Reliant Trader 1: Yeah.

Broker I: But otherwise I wouldn't, I don't think I'd be, you know, I wouldn't be

selling here.

Reliant Trader 1: [Unintelligible], oh no, me neither, I can't go short this time of year.

We're not allowed to go short.

Broker 1: Right.

Reliant Trader 1: That's the other problem is I can't go short.

Broker 1: Right.

Reliant Trader 1: And for Q3 so that's not an option for me. So what do you think about

like last week though we went seven hundred dollars daily and we didn't

react.

Broker 1: Well, the problem is is because, everyone was kind of brought out, I mean,

Ι...

Reliant Trader 1: Everybody was at their limit.

Broker 1: Yeah, it's like, I mean, yeah, they're reaching the point in this market

where you just—buying does expire because no one can purchase any more than they, than they already have, and that's that's always the key

to—that the market's going to turn.

Reliant Trader 1: Right.

Broker 1: So Wednesday, you know, we didn't rally on that with those huge PXs.

Reliant Trader 1: Right.

Broker 1: That to me tells you we're due for correction now.

Reliant Trader 1: Right.

Broker 1: You know and that's . . .

Reliant Trader 1: Yeah we saw that coming.

Broker 1: I was kind of hyping that to basically everybody, like look you know.

Reliant Trader 1: Yeah.

Broker 1: If this thing is not going higher after all that . . .

Reliant Trader 1: It's not going.

Broker 1: It's not any, that means we've kind of reached a temporary limit where

people aren't prepared to buy anymore.

Reliant Trader 1: Right and that's where we're prepared, you know, we're prepared to hold.

It's just, I'm still kind of amazed that we've dropped as far as we have.

Broker 1: And on not a lot of volume.

Reliant Trader 1: Yeah, that's what I mean ...heavy trading—

Broker 1: —there's definitely some people shell shocked.

Reliant Trader 1: Really.

Broker 1: Um yeah, they just . . .

Reliant Trader 1: Do you see utilities even coming out looking now that we've corrected?

Broker 1: I, a couple of my, well, one of my utilities has, P&M has absolutely

nothing to do.

Reliant Trader 1: Yeah.

Broker 1:

They can't, they can't purchase up here and they. . .

Reliant Trader 1:

They're not about to sell it.

Broker 1:

Hold on.

Reliant Trader 1:

Okay.

Broker 1:

[To someone else: Fifty and quarter at fifty-one and a quarter. If I get room, you're going to know about it, alrighty. I'll sell fifty-ones Q4 Palo, but who gives a s .]

Reliant Trader 1:

That's the thing, I mean, it's just so thin, it's like . . .

Broker 1:

Yeah, there's not, there's not been a ton of volume, there really, it really hasn't. We, you know, we're getting stuff done, we got stuff done on Friday. We got this stuff done today but, you know, there's not much going on at all.

Reliant Trader 1:

Okay.

Broker 1:

There really isn't so, I mean, you know, and that doesn't necessarily mean that someone is gonna come in and all of a sudden lift everything, you know, I mean, that's the problem.

Reliant Trader 1:

Right. It's how long are we gonna sit at this kind of.

Broker 1:

Right, I mean, I have . . .

Reliant Trader 1:

... kinda slow.

Broker 1:

I mean I have a feeling that we're going to be, uh I mean, you know, and also we only have basically nine days left to trade, you know, Julys.

Reliant Trader 1:

Right.

Broker 1.

So the Q3s and the Julys are going to be off the board, you know, it might be into next week.

Reliant Trader 1:

Right. Yeah, really by next Wednesday because they trade early because of the holiday.

Broker 1:

Yeah, I guess that's true so, I mean, we basically have one two three four six seven, this is seven full business days and what's left of today.

Reliant Trader 1:

Yeah, okay. Well, let's see what we're going to do.

Broker 1:

Alright, well, if there's anything I can do for you, let me know and I'll, I mean, as I feel out what some of the other players are doing, I'll let you

know but unfortunately no one's tipping us off on anything.

Reliant Trader 1:

Yeah and cal '01 right now, you're still like fifty-five, fifty-seven?

Broker 1:

Yeah that's where it should be, yeah.

Reliant Trader 1:

Okay.

Broker 1:

Alrighty?

Reliant Trader 1:

Thanks guy.

Broker 1:

Okay.

Reliant Trader 1:

Yeah.

Broker 1:

See you later.

#### END OF RECORDING

#### **BEGINNING OF RECORDING**

Reliant Trader 1:

... What's up?

Broker 2:

Q3 Palo index today was forty-

Reliant Trader 1:

Hold on a second.

Broker 2:

Okay.

Reliant Trader 1:

Okay, sorry. Say that again. My phone was screwing up on me.

Broker 2:

Q3 Palo index on 40-cent bid, for top?

Reliant Trader 1:

I have seen a 45-cent bid.

Broker 2:

Okay.

Reliant Trader 1:

Q3 Palo. And I can show you a 75-cent offer.

Broker 2:

Okay.

Reliant Trader 1:

Okay.

Broker 2:

Thank you.

Reliant Trader 1:

Uh-huh.

#### June 19, 2000, 14:22

Reliant Trader 1:

Yeah?

Broker:

What's going on here?

Reliant Trader 1:

Absolutely nothing.

Broker:

How many trades have you done today?

Reliant Trader 1:

Let's find the sheet. Um, one.

Broker:

You sold Q4 Palo?

Reliant Trader 1:

No.

Broker:

Oh.

Reliant Trader 1:

I sold Q4 Mead.

Broker:

Q4 what?

Reliant Trader 1:

Mead.

Broker:

Really?

Reliant Trader 1:

Um huh.

Broker:

Who bought that?

Reliant Trader 1:

Nevada.

Broker:

Ah those boys, huh?

Reliant Trader 1:

Yeah.

Broker:

Excellent.

Reliant Trader 1:

That was it.

Broker:

Besides that was their number really out of the market?

Reliant Trader 1:

Theirs?

Broker:

Yeah.

Reliant Trader 1:

Not too bad.

Broker:

Oh.

Reliant Trader 1:

I mean it was just something I had to get done, so I was like okay.

Broker:

There you go.

Reliant Trader 1:

So you know.

Broker:

This is brutal.

Reliant Trader 1:

I know, it's terrible. Do you think you saw a lot of people puke out that

had to, you know, they got their stop-loss limits and had to get out, you

think?

Broker:

Yeah I think a lot of people finally sold a few things, uh. [To someone

else: Last ninety-three, ninety-eight.] Q3 Palo, that was.

Reliant Trader 1:

Yeah, so now you think people are just sitting kind of scared for the

moment?

Broker:

I think so, just sitting here waiting.

Reliant Trader 1:

Was gas puked it up today?

Broker:

Oh God. Horrified.

Reliant Trader 1:

That's terrible. Everybody was like, oh, wait a minute.

Broker:

[To someone else: 5-10 last.] So, that's the story.

Reliant Trader 1:

Nice tight market too.

Broker:

You like that?

Reliant Trader 1:

Yeah. I hear Reed's out there kind of trying to sell it and then buy it back,

sell it.

Broker:

[To someone else: Gotcha.] What was that []?

Reliant Trader 1:

I said I heard Bill Reed's kind of out there playing.

Broker:

That's basically it, basically it.

Reliant Trader 1:

Basically . . . Nobody else-none of the other guys are-

Broker:

But they're not, they're not playing, they're just kind of reacting?

Reliant Trader 1:

Yeah, they're reacting to him trying to move it.

Broker:

Yeah people are like, oh s \_\_, I got to sell that. Try to go sell that, try to

go sell that, so-

Reliant Trader 1:

Okay. Allrighty. If you hear anything more about the index, let me know.

Broker:

Yeah, I got still a fifty bid, probably get to fifty-five.

Reliant Trader 1:

Okay.

Broker:

Watching you at seventy?

Reliant Trader 1:

Yeah, I [unintelligible] probably go sixty five.

Broker:

Alright cool.

Reliant Trader 1:

Okay thanks.

#### June 19, 2000, 17:31

[Operational discussion not transcribed.]

Reliant Ops Manager 1: ... And, there is a possibility, we'll take a hard look at this morning,

that three and four may be coming off tomorrow.

Reliant Plant Operator 1: Really?

Reliant Ops Manager 1: Yeah.

•

Reliant Plant Operator 1: Huh!

Reliant Ops Manager 1:

I mean that's how soft the market is getting and...

Reliant Plant Operator 1: Holy smokes.

Reliant Ops Manager 1: ... trying to do some moving in the market and it's really pretty low

prices. So, you may see three and four off a few ... a while tomorrow

night going into Wednesday. Wednesday - Thursday.

Reliant Plant Operator 1: You have a schedule for them for tomorrow though, right?

Reliant Ops Manager 1: Yes. Oh yeah. Yeah, three and four are scheduled for tomorrow.

Reliant Plant Operator 1: Okay.

Reliant Ops Manager 1: We may be shutting down a lot of units tomorrow... see what happens.

Reliant Plant Operator 1: They're predicting a cooling trend, or...

Reliant Ops Manager 1: Well, it's... it's... uhm.

Reliant Plant Operator 1: It's a soft market?

Reliant Ops Manager 1: It's just... it's a soft market plus there's some other issues from a

trading perspective.

Reliant Plant Operator 1: Oh, okay.

Reliant Ops Manager 1: Longer term that we may, you know, we may need to get some units

off for a couple of days to try to create some movement hopefully in the PX ... create movement in other markets that help us out longer

term.

Reliant Plant Operator 1: Yeah. I see. Okay then, I'll just look at my manning schedule and

cancel some overtime, probably.

Reliant Ops Manager 1: Okay. But I'll let you tomorrow. Are you going to be on there

tomorrow?

Reliant Plant Operator 1: Uh, I will be...let's see, uh, no, I'm off tomorrow.

Reliant Ops Manager 1: Oh, okay.

Reliant Plant Operator 1: Uh, that'd be... [Reliant Plant Operator 4] I believe is on tomorrow -

day shift.

Reliant Ops Manager 1: Okay. I'll let them know on three and four shortly after we get the bid.

That's the way it's looking right now.

Reliant Plant Operator 1: Okay.

Reliant Ops Manager 1: Okie doke?

Reliant Plant Operator 1: Yip.

Reliant Ops Manager 1: Alright, thanks a lot, [].

Reliant Plant Operator 1: Yep. Bye.

#### June 20, 2000, 06:30

Reliant Manager 1: Hey.

Reliant Trader 2: Hey.

.

Reliant Manager 1: Heard anything yet this morning?

Reliant Trader 2: No we have not heard anything yet. We're just kind of talking about our

plan.

Reliant Manager 1: Okay. The other thing is—we could come out and do—in order to do it is

to come out and sell it, but if it comes up, put the sells that we have into

the plant book and take the larger sells into our book.

Reliant Trader 2: What we are kinda thinking about doing right now is coming out and

trying to buy Q3. Buy dailies and then shut down all the plants and then if

it goes against us putting that, unwind hedges in the plant book.

Reliant Manager 1: Yeah.

Reliant Trader 2: And then that way we going to put out that we are short NOx, we're short

capacity factor—or we're worried about the capacity factor of units, and trying to get people to say look we can't—these levels don't make sense to do. I mean at 88 bucks and just kinda um....then we can make the

argument internally if we have to.

Reliant Manager 1: That it was a 21 buck margin.

Reliant Trader 2: Yeah. I mean, we're down to \$40.00 profit margin now where as last

week we were \$70.00, and we'd rather unwind stuff and carry into the

summer.

Reliant Manager 1: Yeah. And plus we'll use the deal we don't know what Ormond's going to

be doing and there's problems popping up.

Reliant Trader 2: Right. I mean, I feel more—I feel better about that than going out and just

coming out short when I think the market is going to rebound at some

point. Right now. But we're still talking about it right now.

Reliant Manager 1: Well I was talking about the Q—the 2001.

Reliant Trader 2: Well, yeah, I mean if it props up there and we're selling 2001. I mean

we're doing this to prop up 2001 to sell into it.

Reliant Manager 1: But what I was going to say is that if 2001 looks like it's not going to do

anything, in order to do it, is—then we're happy with profit margin in

2001 as our front line hedges, what we can do is go out sell some of it in 2001. I know it put downward pressure, but then if the market keeps falling off we'd just put it in our book. If it goes back up we'd put the lesser ones in the plant book and do the other ones the other way.

Reliant Trader 2:

Right.

Reliant Manager 1:

At least that way we're hedged—at least that way we have locked in.

Reliant Trader 2:

Some of it, yeah.

Reliant Manager 1:

Some of it there.

[Unrelated business conversation through the end of call not transcribed.]

#### June 20, 2000, 6:56

Reliant Trader 1:

Hey, guy.

Broker:

How are you?

Reliant Trader 1:

Good. I'm going to try this again today.

Broker:

Yep. What do you think? Do you think it continues off or do we bounce?

Reliant Trader 1:

You know. I thought we would have bought them \$5 or \$10 ago. So ... I'm going "huh?" So you know, gas—I haven't had any gas this morning but looks like last night it kind of leveled off. It didn't continue

totally to downward.

Broker:

Right. How much does that count on a day?

Reliant Trader 1:

46¢ yesterday.

Broker:

"Hello!"

Reliant Trader 1:

Yeah. So you know ...

Broker:

That's over, done.

Reliant Trader 1:

Yeah. And that was bound to carry over into us, you know, and I think

some people hit their limits and they had to bail.

Broker:

Yeah.

Reliant Trader 1:

You know people got nervous.

Broker:

Let me ask you, do you think, when you got in, do you think there was a lot going on or do you think it was like drop a buck, drop two bucks, you

know, a couple of things go through and then drops again?

Reliant Trader 1:

Yeah. That's what it seemed like all day.

Broker:

It's all very thin you know.

Reliant Trader 1:

I've felt like that for a few days. I didn't even get here 'til 9 o'clock my time and it was like, one trade would happen, and the next trade would be

\$4 less.

Broker:

Yes. Exactly. I mean we're down on light volumes.

Reliant Trader 1:

Uh-huh.

Broker:

The only thing you've got to worry about there is your risk managers come

in and say that's enough pain, now you've got to get out.

Reliant Trader 1:

That's what I'm thinking started to happen you know because a lot of companies are not going to lose going into summer. They know a big risk is during it, and if people are starting to see that kind of move, if they were

long, which I think the market was long.

Broker:

No question about that.

Reliant Trader 1:

Without a doubt. I think people were bailing. You know, nobody except

for maybe Freak Boy and Ohio were willing to go short.

Broker:

"Freak boy." I love it.

Reliant Trader 1:

Well I can't help it.

Broker:

I love it. No, I think you're right. I guess you're right. I agree with that

100%. I think the market is long as hell.

Reliant Trader 1:

Uh-huh.

Broker:

You know.

Reliant Trader 1:

My question is that I can't figure out is—what kind of length is still out there? You know, what if other people had to puke up this week, what is

still there?

Broker:

Right.

Reliant Trader 1:

You know. We know what Enron is long but Motley and Schwarzman are

both out, so they're sitting on it.

Broker:

And [unintelligible] and [unintelligible] was selling. Well, he was selling

the prompt stuff. I don't know what he was doing in the back.

Reliant Trader 1:

Yeah. He was selling [unintelligible] from COB.

Broker:

He was stepping on everything in July.

Reliant Trader 1:

Yeah. So, you know-how much length is left? That's what I'm trying to

figure out.

Broker:

Shwarzman is not in for a while. Motley should be in tomorrow.

Reliant Trader 1:

Yeah, Motley will be in tomorrow and Shwarzman doesn't come back

until after holiday, does he?

Broker:

I think he's like the last week in June.

Reliant Trader 1:

Oh, okay.

Broker:

Maybe like the middle of next week sometime.

Reliant Trader 1:

Oh okay. Still.

Broker:

Or maybe the end of next week. I don't know.

Reliant Trader 1:

By then we've already rolled off July.

Broker:

Oh yeah.

Reliant Trader 1:

You know, so ...

Broker:

By then you know what's been done, will have been done.

Reliant Trader 1:

Uh-huh. And by then you're definitely going to have any of the players that like you said, are going to have to, they're going to have to puke it up.

Broker: Yeah.

Reliant Trader 1:

So you know, I'd like to say we're at a bottom, but I'm still not convinced. I think if gas holds any support, you know, looks like AGA's may possibly

be bearish.

Broker:

Right.

Reliant Trader 1:

You know, two schools of thought on that one.

Broker:

Right.

Reliant Trader 1:

So.

Broker:

Alrighty. Anything you up to?

Reliant Trader 1:

Yeah. I'm going to look at some Q3 today. We've kind of had some change over here. We're getting from our guys it looks like we could be in

NOx trouble.

Broker:

In what?

Reliant Trader 1:

NOx trouble. That's a credits, so we may not be able to run like we

thought.

Broker:

Right.

Reliant Trader 1: So I'll probably be out looking at buying some Q3 today.

Broker: Alrighty.

Reliant Trader 1: Looking to unwind some stuff.

Broker: Okay.

Reliant Trader 1: Thanks. Let me know when it starts.

Broker: Alright. Bye-bye.

#### June 20, 2000, 07:01

Reliant Trader 1:

Hey, [].

Broker 1:

Good morning []. How are you?

Reliant Trader 1:

Good. How's it going?

Broker 1:

Hold on one second. Hey. I'm sorry, []. What's happening?

Reliant Trader 1:

Not much. What's going on?

Broker 1:

Jack diddly.

Reliant Trader 1:

Jack diddly, huh?

Broker 1:

Yeah.

Reliant Trader 1:

Well.

Broker 1:

Got in here about 20 minutes ago. Just sitting down talking to people

now.

Reliant Trader 1:

OK.

Broker 1:

Figured I might as well see if we could do any business.

Reliant Trader 1:

Yeah. Well, I'm going to be looking at Q3 today.

Broker 1:

Oh, really?

Reliant Trader 1:

Yeah. Looks like we've got some stuff we've got to undo for the plants.

Broker 1:

Cool.

Reliant Trader 1:

We're going to be in a little – little bit of capacity problem.

Broker 1:

Oh really?

Reliant Trader 1:

Well we ran so hard last week and in May, which is unusual . . .

Broker 1:

Yeah.

Reliant Trader 1:

That we're going to hit capacity limits early, they look like, we think.

Broker 1:

Ooh.

Reliant Trader 1: Yeah, so we're going to - we think we need to buy back some stuff.

So . . .

Broker 1: The horrible thing about that is the way this market is right now.

Reliant Trader 1: Yeah, I know. It's like you tell me, where's the bottom, you know?

Broker 1: And the good thing about that is that I think people might want to continue

to try and push it down more.

Reliant Trader 1: Uh-huh.

Broker 1: So maybe you can get the people to try to . .

Reliant Trader 1: Support?

Broker 1: Push down. Get these people out, you might get some volume that way.

Reliant Trader 1: Well that's what I'm wondering. What do you think? I mean, some

people have had to puke it up, because of limits, you know?

Broker 1: I think if you need to buy it, you could sit back and let's see how it sizes

out for the first 20, 30 minutes, and don't even show a number.

Reliant Trader 1: That's what I was going to see. Is just kind of see how, I mean, things get

started.

Broker 1: Yeah, don't even settle it there. Don't even settle it.

Reliant Trader 1: Un-huh. I mean like, yesterday, we just - you know, one trade would

happen, and the next trade would be five dollars lower.

Broker 1: Exactly.

Reliant Trader 1: So . . .

Broker 1: I think, I think you let it, let it feel itself out.

Reliant Trader 1: OK.

Broker 1: Because things will be happening very slow here, so ...

Reliant Trader 1: Yeah. Well, it's that - I, I don't know - it seemed like a very thin, for . . .

Broker 1: Oh, it's been so thin.

Reliant Trader 1: So, ...

Broker 1:

Well, you know, like I said. You know, feel it out, see what they want to

do and if they want to walk it down, that's your best deal.

Reliant Trader 1:

Yeah. Yeah. I mean . . .

Broker 1:

One piece at a time and let 'em keep hitting you.

Reliant Trader 1:

Are you seeing anybody, I mean, significant, trying - besides, I know

Enron was out late trying to do COB.

Broker 1:

Yeah, I think they'll probably be, -- I think they had the advantage -- that's what I'm saying. If they try and walk it down a little bit, then you start

getting hit with more piece at a time?

Reliant Trader 1:

Uh-huh. Yeah.

Broker 1:

Then might be just stand like they're stopping you out?

Reliant Trader 1:

Yeah.

Broker 1:

And then you can maybe get some size.

Reliant Trader 1:

OK. And then was Bill out there?

Broker 1:

What's that?

Reliant Trader 1:

AEP?

Broker 1:

Yeah, he was walking it down, so maybe he'll continue to do that. I don't

know.

Reliant Trader 1:

OK. And he's a freak, so. We'll see what happens. Let me know if you

get started and kind of size it up.

Broker 1:

No problem.

Reliant Trader 1:

Thanks.

Broker 1:

Bye [Reliant].

#### END OF RECORDING

#### BEGINNING OF RECORDING

Reliant Trader 1:

Good morning.

Broker 2:

What's going on?

Reliant Trader 1:

Hey. It's Tuesday. It's morning.

[Unrelated conversation not transcribed.]

Reliant Trader 1:

... So, what's going on?

Broker 2:

Well, I have an 83 bid to start in July Palo, and I have an 85 bid to start Q3

Palo. I haven't seen any offers yet.

Reliant Trader 1:

Okay.

Broker 2:

And, I don't know. What do you got cooking?

Reliant Trader 1:

I'm probably going to look at having to go out and buy some Q3 this year.

Broker 2:

This year?

Reliant Trader 1:

Yeah. Looks like we may have some unit problems, so we're going to

unwind some stuff from our plants today.

Broker 2:

Okay.

Reliant Trader 1:

So, not what we want to do. But, you know, we don't have a choice. So,

you know, we may get out at pretty good levels today.

Broker 2:

Allright.

Reliant Trader 1:

So, kind of seeing if you know if anybody's going to try to keep whacking

it down. Or, you know, pick and choose some pieces here and there, or so

. . .

Broker 2:

Allrighty. Any level you want me to start you off at?

Reliant Trader 1:

No, I'm going to kind of wait and see how it gets started here this

morning.

Broker 2:

Allright, you got it.

Reliant Trader 1:

Still cranky.

Broker 2.

That—we're talking about 2000, right?

Reliant Trader 1:

Yeah, we're talking about 2000.

Broker 2:

Okay.

Reliant Trader 1:

Allrighty?

Broker 2:

Allrighty.

Reliant Trader 1:

Thanks.

Broker 2:

You got it.

#### June 20, 2000, 08:25

[Operational discussion not transcribed.]

Reliant Ops Manager 1: Yeah. That's probably the way to go if ya'll can swing it. If not, if we have to do it then I don't necessarily foresee those units being run the remainder of this week. In fact you will probably see, in fact I know, tomorrow we will have all the units at Coolwater off.

Reliant Plant Operator 2: Really?

Reliant Ops Manager 1: Potentially. Even number four. More due to some market manipulation attempts on our part. And so, on number four it probably wouldn't last long. It would probably be back on the next day, if not the day after that. Trying to uh...

Reliant Plant Operator 2: Trying to shorten the supply, uh? That way the price on demand goes up.

Reliant Ops Manager 1: Well, we'll see.

Reliant Plant Operator 2: I can understand. That's cool.

Reliant Ops Manager 1: We've got some term positions that, you know, that would benefit. So, we'll see what happens. So you're scheduled tomorrow on two and four probably initially at least. I know two will be off and the initial schedule will say four is off. Whether or not we actually do that real time, we'll see.

Reliant Plant Operator 2: How long do you project unit two be on?

Reliant Ops Manager 1: Uh, probably a day or two.

Reliant Plant Operator 2: Okay.

Reliant Ops Manager 1: Oh number two?

Reliant Plant Operator 2: Yeah.

Reliant Ops Manager 1: Yeah, I would imagine. I don't know that we would start that one back up going into the outage next week. We may leave it off. Number four would probably be back within a day or two.

Reliant Plant Operator 2: Okay. Good enough.

Reliant Ops Manager 1: Okie doke.

Reliant Plant Operator 2: Thanks.

Reliant Ops Manager 1: Thanks a lot, []. Bye.

#### June 20, 2000, 16:50

[Discussion of prospective maintenance needs and weather trends not transcribed.]

Reliant Ops Manager 1: Yeah. So that should provide some strength in the market. We're

having some relative strength now, you know, for tomorrow and the next day. And just between me and you, a lot of that's being caused by us taking deliberate actions to provide that strength. For longer

term trading issues.

Reliant Plant Operator 3: Okay.

Reliant Ops Manager 1: What, we're shutting down six power plants tonight.

Reliant Plant Operator 3: Ouch. Tonight?

Reliant Ops Manager 1: Yeah. So we didn't bid 'em all in tomorrow, maybe not the next day,

but we'll probably be back to more normal operations after that. So if you're seeing relative strength in the market now, some of that's being

caused by us.

Reliant Plant Operator 3: Okay.

Reliant Ops Manager 1: It was intentional.

Reliant Plant Operator 3: Proving a point, huh?

Reliant Ops Manager 1: Well, yeah, sometimes you have to.

Reliant Plant Operator 3: I'm going to send my noms in through Thursday.

Reliant Ops Manager 1: Okay.

Reliant Plant Operator 3: What is your recommendation? Should I just go in pretty close to -

because I've been bidding with the one unit – real close, you know, to what we can generate. Should I trim a little bit off of that, or should I just – I mean, you know, I don't want to get into your guys turf. If you

know what I mean.

Reliant Ops Manager 1: Oh, no. I would, well, I would think, for the most past, the past couple

of days – except yesterday there was a few strong hours – tomorrow is kind of strange. I think, I think there's quite a lot of people – tomorrow's Wednesday, I'm trying to see what was happening tomorrow. We're not totally out with the market today yet. They're doing some revisions in the market's liable to come out... I think they're revising their load forecast up. I think – if we're doing the

same thing Thursday, the day-ahead market, I think it came out like

\$74, today, I don't know if we had any congestion or not. That's not out yet. I would think Thursday, just my gut feeling is, I think that there'll be some relatively good imbalance prices for a few hours tomorrow. On average, probably relatively close to the day-ahead, what the PX day-ahead clears at, except for the four or five hours perhaps 13, 14, 15, 16, 17. The ISO, it appears that they're going to pick up additional reserves. They're going back and re-running the market now. They published it and then they came back and "No, wait, we're going to redo it." It appears that's for the purpose of picking up additional reserves so that they can buy additional capacity and lock that up. So it appears that there's some concern on their end for not enough capacity tomorrow. And I would think that would carry in, to a certain extent, to Thursday also. So, that's how come - I don't see a lot changing in the market between Wednesday and Thursday. So, kind of, however I see tomorrow going, I kind of think the same thing I think will happen Thursday.

Reliant Plant Operator 3:

Are you looking at real high prices then on that PX or ...?

Reliant Ops Manager 1:

No. I don't think PX prices for Thursday, I would anticipate they would clear somewhere in the same range they did for tomorrow. 74, 75 dollars.

Reliant Plant Operator 3:

I was just thinking about backing down and picking up like 20, leaving 20 on the ex post, or something like that.

Reliant Ops Manager 1:

Right. I think, I think on average that that 20 on the ex post would be higher than what the PX clears at.

Reliant Plant Operator 3:

Okay. Okay.

Reliant Ops Manager 1:

Because, I think – I guess what I'm saying, the majority of day-ahead would be pretty close. And then the peak hours, there's the possibility of it going quite a lot higher. So, when you look at the average over the day, I mean, I don't think you're going to see many zero dollars. And if you do, with only one unit on, you're dispatchable. You can always get down to schedule. You're not hung out there. So, you've got an advantage there, actually.

Reliant Plant Operator 3:

Um. Shoot, that's good to know. But, what you're saying, this weekend kind of looks not too bad. We may be totally down then this weekend.

Reliant Ops Manager 1:

I would think, if I was looking at doing an outage, I would be looking at this weekend.

Reliant Plant Operator 3:

Okay.

You know, if not before. You know, some of the units we're actually Reliant Ops Manager 1:

shutting down, we're going to work on tomorrow and the next day. We probably wouldn't do that if we weren't trying to make another point. But, would look more towards this weekend, could be that you're going to get to July 4<sup>th</sup> and it will be even softer.

Reliant Plant Operator 3: Okay.

Reliant Ops Manager 1: That's just an unknown. This weekend does not look particularly

strong to me.

[Discussion of timing for prospective maintenance continues through the end of the call.]

#### June 21, 2000, 14:34

Reliant Trader 2:

Hey.

Unidentified Reliant Employee:

Hey. Your ass is in trouble I guess, huh? I've never seen

[Reliant Manager 2] on the floor.

Reliant Trader 2:

I didn't know he was here. I mean [Reliant Trader 1] just

told me he came down.

Unidentified Reliant Employee:

What did he have to say? Where the hell is my 3 million

bucks?

Reliant Trader 2:

No, we've made back.

Unidentified Reliant Employee:

Oh, did you?

Reliant Trader 2:

Yeah.

Unidentified Reliant Employee:

So what's he doing down here?

Reliant Trader 2:

We shut down all of our plants yesterday, for today and for

tomorrow.

Unidentified Reliant Employee:

Yeah, and he wanted to know why?

Reliant Trader 2:

No, no, no, he was - we made all the money back and he

thought that, I mean he just thought that was the coolest

strategy ever.

Unidentified Reliant Employee:

Did you take all the credit for that?

Reliant Trader 2:

I wasn't here.

Unidentified Reliant Employee:

Well, who made the decision to shut the plants then?

Reliant Trader 2:

Well, [Reliant Manager 1], I mean, we all kind of came up

with it. [Reliant Manager 1]-

Unidentified Reliant Employee:

Look over here, you know I've got you on the speaker

phone.

Reliant Trader 2:

Oh, do you? I didn't even, I wasn't even around. No,

[Reliant Manager 1]. I'm not even talking to you, bye.

#### June 21, 2000, 14:43

[Personal conversation not transcribed.]

Reliant Ops Manager 2:

Cool. How did it work today?

Reliant Trader 1:

Ah, 129 for the PX.

Reliant Ops Manager 2:

Yeah. I saw that.

Reliant Trader 1:

And then we traded up to 113 for Q3 next year.

Reliant Ops Manager 2:

Sweet.

Reliant Trader 1:

I mean this year.

Reliant Ops Manager 2:

This year? How about . . .

Reliant Trader 1:

And then I traded as high as 97 for Q3 next year.

Reliant Ops Manager 2:

All right . . .

Reliant Trader 1:

We pretty much made back everything we lost.

Reliant Ops Manager 2:

Uh huh. Thank God.

Reliant Trader 1:

Yea. Every penny, so, I mean, we even had [Reliant Manager 2]

down here.

Reliant Ops Manager 2:

Really?

Reliant Trader 1:

You know. He reports to [Reliant Manager 3].

Reliant Ops Manager 2:

Yeah.

Reliant Trader 1:

He came down, talked to [Reliant Manager 4]. He just wanted to

know, he was, everybody thought it was really exciting that we

were gonna play some market power.

Reliant Ops Manager 2:

Yeah.

Reliant Trader 1:

So he came down and asked how it was going and wanted to da-

da-da . . .

Reliant Ops Manager 2:

Cool.

Reliant Trader 1:

He's like "This is cool."

Reliant Ops Manager 2:

Actually it was kind of fun.

Reliant Trader 1:

It was.

Reliant Ops Manager 2:

The circumstances really sucked.

Reliant Trader 1:

Yeah, but I mean, you know, it's great because real time right now is \$300, you've got Coolwater in. I think they're 400 long right

now.

Reliant Ops Manager 2:

Cool.

Reliant Trader 1:

So, um, you know, it's good because they think it'll prop

everything up because with no heat; it's just showing . . .

Reliant Ops Manager 2:

Yeah.

Reliant Trader 1:

See that the market can still do this. So, it's got people thinking.

So . . .

Reliant Ops Manager 2:

Cool.

Reliant Trader 1:

So that'll be cool.

Reliant Ops Manager 2:

That was fu-un!

Reliant Trader 1:

Yeah. So, I think tomorrow I'll start bringing stuff on, but I know

I think they're gonna leave Etiwanda off through the weekend.

Reliant Ops Manager 2:

Yeah. Well, I told them yesterday to . . . if they came up with a decision without me there I told them leave 'em off. We don't

want 'em Saturday, Sunday.

Reliant Trader 1:

Yeah. I agree. And I mean it looks like there's a little heat coming in. The thing that's helping us, too, that hopefully will help over the weekend when they start bringing stuff back is, it's gonna be

warm, like 90, 91 in Spokane and the Northwest.

Reliant Ops Manager 2:

Oh, sweet.

Reliant Trader 1:

So, you know, every time they get hot, it freaks everybody out, so,

you know, it may help.

Reliant Ops Manager 2:

Cool.

Reliant Trader 1:

But, uh . . .

Reliant Ops Manager 2:

We could have a good week next week.

Reliant Trader 1:

Yeah. Yeah. We hope so. Yeah. It's not supposed to be terribly hot in the Southwest, but . . . but the Northwest, you know anytime that gets warm, that helps, so . . . Yeah, gas went up again like 20 some cents today.

Reliant Ops Manager 2:

Damn.

Reliant Trader 1:

It went up — it was all the way back to flat, and then as soon as AGAs came out, they came out real bullish and went up 27 cents.

Reliant Ops Manager 2:

Huh. Cool.

Reliant Trader 1:

So, cool?

Reliant Ops Manager 2:

That's cool. All right.

[Personal conversation through the end of the call not transcribed.]

#### June 21, 2000, 15:29

Reliant Trader 2:

Hey.

Reliant Ops Manager 3:

How's it going?

Reliant Trader 2:

It's going okay. It's going better.

Reliant Ops Manager 3:

Is it?

Reliant Trader 2:

Yeah. It's been a very crazy two days.

Reliant Ops Manager 3:

Why has it been going bad?

Reliant Trader 2:

Monday the prices for Q3 dropped \$15 and Q3 '01 dropped about

\$10. So the trading books we're losing a shit load . . .

Reliant Ops Manager 3:

Uh-huh.

Reliant Trader 2:

So we shut, we were worried about the value of '01 and all this stuff, and the plant—we decided that the prices were too low on the daily market, so we shut down everything except Ormond.

Reliant Ops Manager 3:

Excellent. Excellent. Looks like the price popped a little bit in the

PX.

Reliant Trader 2:

It did because we pulled everything out of the market.

Reliant Ops Manager 3:

Hundred and twenty-eight bucks. That's excellent.

Reliant Trader 2:

We pulled about 2,000 megs off the market.

Reliant Ops Manager 3:

That's sweet.

Reliant Trader 2:

So, the real time market's popping right now.

Reliant Ops Manager 3:

Did that all work out for you then?

Reliant Trader 2:

Yeah, I mean, the real time - the day-ahead prices going up to a

level where we think we can run and make money.

Reliant Ops Manager 3:

Isn't that fun when you can do things like that now?

Reliant Trader 2:

Yeah. We're just trying, you know, to look at our options.

Reliant Ops Manager 3:

Absolutely.

Reliant Trader 2:

We've had NOx and we've been running the units hard, and going

into summer and we're not going to give it away.

Reliant Ops Manager 3:

You don't want to waste all your bullets in June. There's still July

and August.

Reliant Trader 2:

Yeah. Right. So.

Reliant Ops Manager 3:

Well, that's good that it worked out.

Reliant Trader 2:

Yeah.

[Unrelated conversation about Reliant Ops Manager 3's ongoing business trip in Pennsylvania not transcribed.]

Reliant Trader 2:

I mean you know this strategy that we did, you know, yesterday and today would not have worked if not everybody in the whole

group bought into it wholeheartedly.

Reliant Ops Manager 3:

And was on board and said said let's try it.

Reliant Trader 2:

And did not look at the personal P&L and looked at the best thing

for the whole corporation.

Reliant Ops Manager 3:

Yeah. I mean Darren's hedge position is looking rather well. You

know?

Reliant Trader 2:

Yeah. You know you have a – term book lost a little money but the overall thing was that prices for the whole portfolio were going

down for Q3 if we did not do something.

Reliant Ops Manager 3:

Yeah, I think that was a good call.

Reliant Trader 2:

So.

Reliant Ops Manager 3:

I mean it's fun when you can take that kind of risk, you know, because you've already had a good May-June now it's time to be real aggressive about the market and try and make the market do

what you want it to do for you.

Reliant Trader 2:

Right.

Reliant Ops Manager 3:

And sounds like a good call.

Reliant Trader 2:

So I apologize for not getting back with you.

Reliant Ops Manager 3:

Oh no, no problem. No problem at all. . .

[Unrelated conversation about Reliant Ops Manager 3's ongoing business trip in Pennsylvania continues through the end of the call.]

#### June 23, 2000, 09:27

Reliant Trader 1:

Hey, what's going on?

Reliant Trader 3:

Not too much.

Reliant Trader 1:

Cool.

Reliant Trader 3:

Except that we made our budget.

Reliant Trader 1:

Did you?

Reliant Trader 3:

Of course our budget is smaller than your budget.

Reliant Trader 1:

Oh, that's all right, ours is – kinda sucks right now, so.

Reliant Trader 3:

Oh, yeah?

Reliant Trader 1:

It's been an interesting week.

Reliant Trader 3:

How...?

Reliant Trader 1:

It started out Monday losing \$3 million, market just fell out of bed. So, then we decided as a group that we were going to make it go back up, so we turned like about almost every plant off. It worked. Prices went back up. Made back about \$4 million, actually more than that, \$5 million. And then last night we get word that the — because prices last week, you know, were \$450, that the ISO is going to try and lower price caps back to 250.

So, there was a board meeting last night – huh?

Reliant Trader 3:

They going to do that?

Reliant Trader 1:

That's what they want to do. That's what they are proposing. They are

holding another meeting next Wednesday.

Reliant Trader 3:

That will kill the market.

Reliant Trader 1:

Oh, it did today. So, - and of course I was sitting long. So, we knew about it. So, we came in early trying to get out of whatever we could, but of course, there was no bids. So, we are sitting on length and there is no f ing bid in the market.

Reliant Trader 3:

[Unintelligible] market now? Still no bid?

Reliant Trader 1: No bid. I don't think there will be the rest of today. It's a Friday, you

know, to make matters worse it's a Friday and plus the news of the ISO.

So, yeah. It's been fun.

Reliant Trader 3: Ugh.

Reliant Trader 1: So, it's been an interesting week.

Reliant Trader 3: Wow.

[Unrelated conversation about Reliant Trader 3's trading group in Europe not transcribed.]

Reliant Trader 3: We'll see. That's what kills you is regulatory

Reliant Trader 1: Oh, yeah—

Reliant Trader 3: Regulatory changes. That's what kills you is regulatory.

Reliant Trader 1: I mean, there's nothing you can do about it either. I mean, we're going to

fight it, you know, kicking and screaming, obviously. So.

Reliant Trader 3: Did they make a decision soon? Or are they just going to –

Reliant Trader 1: Well, they got a letter from the Senator Pease, the guy that proposed the

whole deregulation thing. His letter not only wants to take the cap back to 250 he wants to make it retroactive to May 1<sup>st</sup>, which is like \$50

million income to us.

Reliant Trader 3: He can't do that.

Reliant Trader 1: We don't think the retroactive will work, no, but the way that FERC gave

them permission to decide – all FERC's order did about price caps, it says the buyer has the right to decide what they'll pay. So, ISO being the buyer if they decide they want to pay 250 going forward, then they're

only going to pay 250—you know.

Reliant Trader 3: How long are you?

Reliant Trader 1: 125 for Q3 next year, and once piece of calendar '01. So, a \$4.00 move is

about \$600,000.

Reliant Trader 3: Well, that's not – that's not as bad as it was, though, 'cause you were like

350 long -

Reliant Trader 1: Well, that was Q3 this year. I have been in and out of that, made my

money, but the problem is, like what I was holding - yeah, I was 275

long of Q3 next year, Monday when everything fell – bottom fell out. So—

Reliant Trader 3:

So, you shut everything off. I love that.

Reliant Trader 1:

Huh?

Reliant Trader 3:

So you shut everything off?

Reliant Trader 1:

Yeah, we literally shut everything off but Ormand. Everybody's like, you can't do that, and we're like, watch us. And it worked.

Reliant Trader 3:

Did the market find out?

Reliant Trader 1:

No, god no. They – somebody, you know, figured out because they said that, came out in one of the rags that a non-utility generator looked like they were withholding generation. But, see we didn't because we really bid it in. We just bid it in very high.

Reliant Trader 3:

So you're clear.

Reliant Trader 1:

Huh?

Reliant Trader 3:

So, you're cleared. You sold. You can honestly say, I did not withhold.

Reliant Trader 1:

Yep, and it wasn't like at \$500, I mean we bid it in at like 250. So.

Reliant Trader 3:

That helps. Well, not this week-

Reliant Trader 1:

Yeah, no this week has been – talk about – you started the week out totally falling down a mountain, then we have been on a pretty good high for three days, and then today is just, I mean, it's awful. So—

[Unrelated story about Reliant Trader 3's trading in Europe not transcribed.]

Reliant Trader 1:

Yeah, so it was, it's just the liquidity has just been killing us. Nobody, you know, we've stopped a lot of people out — that's what got us Monday, gas fell 46 cents.

Reliant Trader 3:

It fell 46 cents?

Reliant Trader 1:

Yes. So as gas just keep plummeting during the day, you know, bids keep backing up on the power side and all of a sudden you have got people that are long that start – they're at their stop –loss limits. They got to get out. So, a lot of risk managers, I guess, at some companies, you know, have got to sell. And if you had ask a bid – you know, find out – go call a

broker where is the bid, it would be \$5.00 less than what it was 30 seconds ago because they knew somebody was interested. Q3 dropped \$25.00 on Monday.

Reliant Trader 3:

Oh my god.

Reliant Trader 1:

Yeah, I mean, it's just crazy.

Reliant Trader 3:

So, you shut it down Monday for Tuesday?

Reliant Trader 1:

Yeah, I mean, I didn't get out of anything, we just - we took the hit. We took almost \$3.1 million hit. You know, we just weren't going to chase it down and then we decided to turn off the units and then bring stuff back. And it came back, I mean, it got strong. So-

Reliant Trader 3:

Were you able to dump some of it then?

Reliant Trader 1:

Yeah, then I was able to get out some and then it got strong and then they were like, oh, put those sales to the plant because they were looking at a lot of heat to sell - you know to start hedging for '01. So all my \$102.00 sales yesterday had to go towards plant hedges. So, I didn't get to keep them on my books, so that's why I'm still long.

Reliant Trader 3:

And [Reliant Trader 2] agreed to that?

Reliant Trader 1:

Yeah.

Reliant Trader 3:

Did you want to sell it.

Reliant Trader 1:

Oh, I sold it. I wanted to keep half of it for my book, you know, so I would lessen my length, but, you know, but we really didn't think. We didn't get the word on the board meeting until late yesterday and we

really didn't think it would come out this bearish. So-

Reliant Trader 3:

You can make or lose so much money on regulatory.

[Unrelated and personal conversation through the end of the call not transcribed.]

Docket UM 1002 WC/840 Witness: McCullough

# BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

WAH CHANG

David Pierce (NRG) E-mail dated November 12, 2000

December 15, 2005

Jun-17-2002 02:40pm From-SENATOR JOSEPH DUNN P.014/014 F-800

Murphy, Tanya

From:

Sent To:

Subject:

Borgen, Ben Monday, May 13, 2002 4:34 PM Murphy, Tanya FW: Beware of Ricochets with LDWP

-Original Message

From:

Plerce, David

Sent: To:

Sunday, November 12, 2000 9:45 AM Scorrano, Robert; Tish, Steve; Pierce, David; Wharton, Marc; Leech, Bob; Lawrence, Robert; d'Almeida, Paulin; Ungold, Joe;

Subject:

Borgen, Ben Beware of Ricochets with LDWP

If LA agrees to wheel power to Malin on your behalf, you must make sure that the power is delivered on the other side of the California border (i.e., in BPA's control area). The ISO is savvy to LA's attempts to circumvent ricochets by showing an export and import of equal megawatts on the California side of the tie in order to hide the ricochet nature of the transaction.

Docket UM 1002 WC/857 Witness: McCullough

# BEFORE THE PUBLIC UTILITY COMMISSION OF THE STATE OF OREGON

WAH CHANG

Accomplishments of Michael Driscoll—year end 2000

December 15, 2005

### Accomplishments of Michael Driscoll - year end 2000

- Implemented the Round the West trade strategy taking California
  power out in the Southwest, up the Rockies, across MPC or IPC, down
  through MIDC, and back into California. There are many combinations
  of CALPX energy and CISO energy depending on conditions. This takes
  extensive knowledge of California and WSCC oasis sites.
- Project "Black Widow" a congestion relief strategy in California that
  incorporates a wheel product that relieves congestion in Enron's favor for
  profit through negative adjustment bids which tell the ISO to flow certain
  mw amounts if Congestion is a certain number (a low risk high upside
  trade).
- Brought Financial Products to the Real Time market, with volume increasing every day. These products allow Enron to hold a tight market spread and help others hedge themselves.
- Brought back California Power Exchange Hour Ahead strategies to the Real Time book, with volume increasing every day. Allows us to lock in sales at high prices, and buy very cheap energy at times of derates or line outages.
- Know how to and when to implement every strategy to date that the Real Time group has to use. Also how to effectively coordinate them to
   maximize profits.
- Have had some very successful days trading the real time book this last quarter and year in whole (many days over \$200K, several over \$500K), also sold out of market several times at \$750, \$500 and recently at \$250 (decreasing prices due to lowered price caps). Also sold bi-lat market for over \$1200, west record prices.
- Strong Trader in the California SC market (able to find length at the right prices) and able translate actions of other counterparties into trading opportunities and profits.

- Bring a lot to the table with aggressiveness, excitement, and confidence.
   A definite asset to the group by helping members of the team understand new ideas and getting them interested in these new ideas.
- Innovative trader always looking for new ways to make a market knowing that the ones that work now will not always be there in the future. Always striving to know more than the competition concerning ISO procedures (i.e. congestion management policies, path flows, etc.) and California market information (i.e. prices, loads, etc.).
- Always concerned on teaching the traders of the group new strategies and better understanding of each market and why it works.

### GOALS for 2001:

- Learn how to trade a term book
- Learn how to manage a trading book at Enron (incorporating risk, credit, etc.)
- · Learn the art and strategies of trading,
- Learn valuation on forwards, futures and options, and also the strategies that go along with these
- Bring value and enthusiasm to Matt and Mike (and all the desks)
- Get better at using excel and building models
- Continue to be aggressive and have a strong positive attitude
- Develop skills to accurately and quickly input trades and solve problems within the books

## LONG TERM GOALS:

• Get the opportunity to trade my own book for Enron