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PA.P.U.C.  
PROTHONOTARY'S OFFICE

DANIEL CLEARFIELD  
DIRECT DIAL: (717) 237-7173  
E-MAIL: DCLEARFIELD@WOLFBLOCK.COM

January 9, 1998

James J. McNulty, Acting Secretary  
PA Public Utility Commission  
P.O. Box 3265  
Harrisburg, PA 17105-3265

RE: Duquesne Light Company Restructuring Proceeding,  
Docket No. R-00974104

Dear Mr. McNulty:

On behalf of Enron Power Marketing, Inc. ("Enron"), and in accordance with Administrative Law Judge Corbett's Sixth Interim Order I hereby submit for the record two copies of testimony and exhibits of Enron witnesses in the above captioned proceeding as set forth in the attached stipulation, Exhibit 3. The testimony exhibits including the following:

Enron Statement No. 1 and attached exhibits.  
Enron Statement No. 2 and attached exhibits.  
Enron Statement No. 3 and attached exhibits.  
Enron Statement No. 4 and attached exhibits.  
Enron Statement No. 5 and attached exhibits.  
Enron Statement No. 1.1.  
Enron Statement No. 2.1 and attached exhibits.  
Enron Statement 3.1.  
Enron Statement 4.1.  
Enron Statement 5.1

These statements and exhibits reflect those that have not already been moved in and provided to the Court Reporter. In accordance with the ALJ's order I am also attaching a signed copy of a stipulation indicating, on behalf of Enron, its agreement to the admission of testimony of other parties into the record without cross examination.

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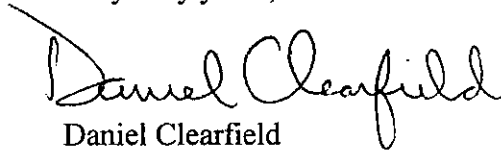
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James J. McNulty, Acting Secretary  
January 9, 1998  
Page 2

Copies of this letter (without attachments) are being provided to all parties to this proceeding in accordance with the attached Certificate of Service.

Very truly yours,

A handwritten signature in cursive script that reads "Daniel Clearfield". The signature is written in black ink and is positioned above the printed name.

Daniel Clearfield

For WOLF, BLOCK, SCHORR and SOLIS-COHEN LLP

DC/lww  
Enclosure

cc: All parties of record w/out enc.

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PAPUC  
PROTHONOTARY'S OFFICE

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Pennsylvania Public Utility	)	
Commission,	)	
	)	
v.	)	Docket No. R-00974104
	)	
Duquesne Light Company	)	
Application to approve	)	
restructuring plan pursuant	)	
to 66 Pa. C.S. § 2806(d)	)	

FIRST JOINT STIPULATION

Pursuant to an agreement of all parties to this case and as required by the Sixth Interim Order issued by the Presiding Judge on December 30, 1997, Duquesne Light Company ("Duquesne") and the intervenor parties hereby agree and stipulate to the following:

1. Each party to this Stipulation agrees that the testimony and exhibits itemized on the Stipulation Exhibits attached hereto shall be admitted into the record of this case.

2. Each party to this Stipulation agrees to waive its right to cross-examine the witnesses sponsoring the testimony and exhibits itemized on the Stipulation Exhibits attached hereto.

**DOCKETED**  
JAN 15 1998

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3. Each party to this Stipulation agrees to execute a copy of this Stipulation by causing counsel of record for each party (or the party itself if that party is unrepresented by counsel) to place its signature on the appropriate line below. Each party further agrees to file an executed version thereof with the Commission's Secretary and Prothonotary at the time it submits two copies of its testimony and exhibits to the Secretary and Prothonotary, as prescribed by the Sixth Interim Order.

Counsel for Duquesne Light:

*JS Moot*  
 John S. Moot

Counsel for Intervenor Party:

*Daniel Clearfield*

Name of Intervenor Party:

ENRON Power Marketing, Inc.

Dated: January 7, 1998

**FIRST JOINT STIPULATION  
INDICES OF TESTIMONY & EXHIBITS**

<b><u>Exhibit No.</u></b>	<b><u>Description</u></b>
1	City of Pittsburgh
2	Duquesne Industrial Intervenors (DII)
3	Enron Power Marketing, Inc. (ENRON)
4	Environmentalists (ENV)
5	Hospital Shared Services & Administrative Resources, Inc. (HSS/ARI)
6	International Brotherhood of Electrical Workers (IBEW)
7	Mid-Atlantic Power Supply Association (MAPSA)
8	New Energy Ventures (NEV)
9	Office of Business Advocate (OSBA)
10	Office of Consumer Advocate (OCA)
11	Office of Trial Staff (OTS)
12	Pennsylvania Retailers Association (PRA)

**FIRST JOINT STIPULATION  
EXHIBIT NO. 1**

## PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

## DUQUESNE LIGHT COMPANY

Application of Duquesne Light Company  
for Approval of a Restructuring Plan  
Under Section 2806 of the Public Utility Code  
Docket No. R-00974104

CITY OF PITTSBURGH  
INDEX OF TESTIMONY AND EXHIBITS

Exhibit	Brief Description
City Statement No. 1	Direct Testimony of Christopher D. Seiple (addressing issues pertaining to the Company's general overview/recovery plan and stranded costs).
City Exhibit No. 1	Resource Data International Background & History.
City Exhibit No. 2	RDI Market & Competitor Intelligence
City Exhibit No. 3 (incl. Tables 1-3)	Capacity Factor Analysis
City Exhibit No. 4	Delivered Output Analysis
City Exhibit No. 5	Early Plant Shutdown Savings Analysis
City of Pittsburgh, <i>et al.</i> Statement No. 2	Direct Testimony of Roger D. Colton (addressing issues pertaining to universal service, low income programs, energy conservation, consumer education, and phase-in).
Exhibit RDC-1	Resume of Roger D. Colton
Exhibit RDC-2	Summary of Colton electricity restructuring experience.
Exhibit RDC-3	Summary of Colton experience pertaining to design of low-income affordability programs.
Exhibit RDC-4	Number and Percent of LIHEAP Recipients by Income Range and Annual Electric Burdens.
Exhibit RDC-5	Recommendations pertaining to utility universal service programs which can help increase incomes of low-income consumers.
Exhibit RDC-6	Estimate of Universal Service Costs at 50 Percent CAP Participation.

Exhibit RDC-7	Summary of Universal Service Recommendations.
Exhibit RDC-8	Recommendations for Consumer Research section of an Education Plan
Exhibit RDC-9	Model 4-Phase Consumer Education Program
Exhibit RDC-10	Proposed Evaluation Process for Consumer Education Activities
Exhibit RDC-11	Summary of Consumer Education Recommendations
Exhibit RDC-12	Proposed Budget for Universal Service Programs

**FIRST JOINT STIPULATION  
EXHIBIT NO. 2**

**DUQUESNE INDUSTRIAL INTERVENORS  
INDEX OF TESTIMONY AND EXHIBITS**

Page 1 of 4

<b>Exhibit</b>	<b>Description</b>	<b>Date Identified</b>	<b>Date Admitted</b>
DII Statement No. 1	Direct Testimony of Stephen J. Baron (Summary of Stranded Cost Analysis; Regulatory Policy Issues; Rate Design Issues)		
Exhibit SJB-1	Expert Testimony Appearances		
Exhibit SJB-2	DII Summary of Recommended Stranded Costs		
Exhibit SJB-3	Example of DII Stranded Generation Sharing Analysis		
Exhibit SJB-4	DII Calculation of Adjusted Rate of Return		
Exhibit SJB-5	DII Summary of Estimated CTC Revenues by Rate Class		
Exhibit SJB-6	DII Load-weighted Market Prices		
Exhibit SJB-7	DII Unbundling Analysis for Rate RS		
Exhibit SJB-8	DII Unbundling Analysis for Rate L		
Exhibit SJB-9	DII Unbundling Analysis for Rate HVPS		

**DUQUESNE INDUSTRIAL INTERVENORS  
INDEX OF TESTIMONY AND EXHIBITS**

Page 2 of 4

Exhibit	Description	Date Identified	Date Admitted
DII Statement No. 1R	Rebuttal Testimony of Stephen J. Baron (Universal Service Cost Recovery Mechanism; Issues Regarding the Calculation of Market Prices and Stranded Cost; Response to OCA Regarding Unbundling Issues)		
DII Statement No. 1S	Surrebuttal Testimony of Stephen J. Baron (Responses to Company Witnesses Regarding Divestiture, Stranded Cost Sharing, CTC Calculation, and Rate Design Issues; Response to OSBA Witness Regarding CTC Calculation and Recovery)		
DII Statement No. 2	Direct Testimony of Randall J. Falkenberg (Calculation of Company Generation Stranded Cost; Analysis of Duquesne and ECAR Market Prices)		
Exhibit RJF-1	Qualifications of Randall J. Falkenberg		
Exhibit RJF-2	Production Cost Model Studies and Benchmarks		
Exhibit RJF-3	Comparison of Market Price Model Results of K&A Model v. MAPS, IPM and PMDAM		
Exhibit RJF-4	DII Calculation of Company's Annual Revenue Requirements for Generation		
Exhibit RJF-5a	DII Total Generation Stranded Cost Calculation		
Exhibit RJF-5b	DII Calculation of Net Present Value of Contribution Margins		
Exhibit RJF-5c	DII Summary of Market Prices, Fuel Cost, Operating Margin and Generation by Plant		

**DUQUESNE INDUSTRIAL INTERVENORS  
INDEX OF TESTIMONY AND EXHIBITS**

Page 3 of 4

Exhibit	Description	Date Identified	Date Admitted
DII Statement No. 2S	<b>Surrebuttal Testimony of Randall J. Falkenberg (Updated Calculation of Generation Stranded Costs; Responses to Company Witnesses Regarding Market Price Forecasts)</b>		
Exhibit RJF-6a	DII Updated Total Generation Stranded Cost Calculation		
Exhibit RJF-6b	DII Updated Calculation of Net Present Value of Contribution Margins		
Exhibit RJF-6c	DII Updated Summary of Market Prices, Fuel Cost, Operating Margin and Generation by Plant		
DII Statement No. 3	<b>Direct Testimony of Lane Kollen (Regulatory Assets; Transition Costs; Fossil Decommissioning; Nuclear Decommissioning; Securitization)</b>		
Exhibit LK-1	Resume of Lane Kollen		
Exhibit LK-2	Excerpts from Company Exhibits Illustrating Double Counting of FAS 109 Asset Related to Perry and Beaver Valley 1		
Exhibit LK-3	Excerpt from Company First Quarter 1997 SEC 10-Q Related to Deferred Coal		
Exhibit LK-4	Net Present Value of Deferred Rate Synchronization Costs at 12/31/98		
Exhibit LK-5	Duquesne Nuclear Decommissioning for Stranded Cost and Revenue Requirement (Beaver Valley 1, Beaver Valley 2, and Perry)		

**DUQUESNE INDUSTRIAL INTERVENORS  
INDEX OF TESTIMONY AND EXHIBITS**

Page 4 of 4

Exhibit	Description	Date Identified	Date Admitted
DII Statement No. 3S	Surrebuttal Testimony of Lane Kollen (Responses to Company Witnesses Regarding Stranded Cost Methodology, Unamortized Debt Costs, Beaver Valley 2 Sale/Leaseback Refinancing Premium, Preaccrued Nuclear Outages, Deferred Employee Costs, Deferred Coal SFAS 106, Deferred Rate Synchronization Costs, Fossil Decommissioning, Securitization)		
DII Cross Exh. 1	Response of Company Witness Hoffmann to Environmentalists' Interrogatories Set I, Number 23	12/18/97	12/18/97
DII Cross Exh. 2	Response of Company Witness Hoffmann to On-the-Record Data Request Concerning Customer Segment Contribution to Non-Coincident Peak Load		
DII Cross Exh. 3	Response of Company Witness Hoffmann to On-the-Record Data Request Concerning Mining, Construction, and Agriculture Customer Segments		

On-the-Record Data Request

Witness: Hoffmann

Page 1 of 1

**DUQUESNE LIGHT COMPANY**

On-the-Record Data Requests

3. Provide a non-coincident peak calculation in form that is analogous to the coincident peak calculation provided in response to Data Request ENV-1-23.

Response:

Attached is a modified version of DLC's response to ENV-1-23 which list the non-coincidental peak load contribution for each customer group/segment associated with the proposed phase-in methodology.

## Non-Coincidental Peak Load Contribution by Customer Class and Segment

Customer Class	Customer Group/Segment	Non-Coincidental Peak Contribution	Percentage Contribution to Non-Coincidental Peak
Residential	Group A - Accumulated Wealth	41	1.14%
	Group B - Mainstream Families	374	10.42%
	Group C - Mainstream Singles	273	7.60%
	Group D - Conservative Classics	49	1.36%
	Group E - Sustaining Families	49	1.36%
	Group F - Sustaining Singles	65	1.82%
	Group G - All Others	21	0.58%
		<b>Subtotal Residential</b>	<b>871</b>
Commercial	Utility Services	155	4.33%
	Wholesale Trade	53	1.47%
	Retail Trade - Food	71	1.99%
	Retail Trade - Restaurants	85	2.36%
	Retail Trade - Merchandise	177	4.94%
	Office Buildings	399	11.13%
	Healthcare	142	3.95%
	Education	214	5.98%
	Services	283	7.89%
	Government	82	2.29%
	Small Business	324	9.04%
		<b>Subtotal Commercial</b>	<b>1,986</b>
Industrial	Industrial - Chemical	68	1.88%
	Industrial - Plastic	14	0.39%
	Industrial - Glass	39	1.08%
	Industrial - Steel	449	12.52%
	Industrial - Other	161	4.48%
		<b>Subtotal Industrial</b>	<b>730</b>
	<b>TOTALS</b>	<b>3,587</b>	<b>100.00%</b>

NonPeakContrib.xls

On-the-Record Data Request  
Witness: Hoffmann  
Page 1 of 1

**DUQUESNE LIGHT COMPANY**

On-the-Record Data Requests

4. Provide breakdown of numbers for mining, construction and agriculture segments on FAH-4 in a manner comparable to that provided in response to ENV-1-23.

Response:

The market segments listed on FAH-4 as "Mining" and "Construction" are classified as "Industrial-Other" on the response to ENV-1-23. Similarly, "Agriculture" was classified within the "services" market segment.

**FIRST JOINT STIPULATION  
EXHIBIT NO. 3**

PENNSYLVANIA PUBLIC UTILITY COMMISSION

v.

DUQUESNE LIGHT COMPANY

Application for Approval of a Restructuring Plan

Pursuant to 66 Pa. C.S. § 2806(d)

Docket No. R-00974104

ENRON POWER MARKETING, INC.  
INDEX OF TESTIMONY AND EXHIBITS

Exhibit	Description	Date Identified	Date Admitted
Enron Cross Examination Exhibit No. 1	CFR Uniform System of Accounts: Accounts 908 and 909.	12/17/97	12/17/97
Enron Statement No. 1	Direct Testimony of James D. Steffes General overview of competitive services; the Portland General Code of Conduct.		
Exhibit 1 JDS-1	Market share of utilities/affiliates in Retail Access Programs.		
Exhibit 1 JDS-2	Portland General Electric Company Tariff Code of Conduct.		
Exhibit 1 JDS-3	Market share of affiliates in Retail Access Programs.		
Enron Statement No. 2	Direct Testimony of Paul D. Reising Rates for unbundled services of Transmission, Ancillary, Energy Delivery and Revenue cycles separately computed and stated.		
Exhibit 2 PDR-1	Educational and employment background of P.D. Reising.		
Exhibit 2 PDR-2	Definition and Description of Ancillary Services.		

DSH:10716.1

<b>Exhibit 2 PDR-3</b>	Summary of Functional Costs.		
<b>Exhibit 2 PDR-4</b>	EPMI Proposed Class Rates		
<b>Exhibit 2 PDR-5</b>	EPMI Class Cost Summary		
<b>Exhibit 2 PDR-6</b>	pro forma Distribution Services Tariff		
<b>Exhibit 2 PDR-7</b>	Energy Delivery Rate Design		
<b>Enron Statement No. 3</b>	<b>Direct Testimony of Jeffrey A. Brown</b> Non-wire services, metering, meter-reading, billing and information services. "Open architecture" communication systems.		
<b>Exhibit 3 JAB-1</b>	Customer Account Services: Billing System Opportunities (representative example)		
<b>Exhibit 3 JAB-2</b>	Customer Account Services: Third Party Billing Services (representative example)		
<b>Exhibit 3 JAB-3</b>	Non-Wire Products and Services: "Endless Possibilities"		
<b>Exhibit 3 JAB-4</b>	Non-Wire Communications Network: Conceptual Model		
<b>Exhibit 3 JAB-5</b>	Metering and Billing Cycle		
<b>Enron Statement No. 4</b>	<b>Direct Testimony of Gayle Muench</b> Unbundling of billing and bill format; billing options ("Supplier Complete Bill Option"); phase-in of competition; customer selection and "slamming"; customer information ("Customer Education Program"); Duquesne's Universal Service Program in a competitive environment.		
<b>Exhibit 4 GM-1</b>	DQE Position on Competition		
<b>Exhibit 4 GM-2</b>	DQE Overview of Competition		
<b>Enron Statement No. 5</b>	<b>Direct Testimony of Lynn R. Coles</b> "Pro Forma Supplier Tariff." Access to point-to-point transmission service. EDC charges; minimum contract periods; planning reserves.		

<b>Exhibit 5 LRC-1</b>	Summary of educational background and general experience in electric utility industry.		
<b>Exhibit 5 LRC-2</b>	Proposed Electric Generation Supplier Tariff.		
<b>Exhibit 5 LRC-3</b>	GPU Market Line: Energy market prices; viability payments, all-in market line; market clearing prices.		
<b>Enron Statement No. 1.1</b>	<b>Surrebuttal Testimony of James D. Steffes</b> Response to Duquesne witnesses Hoffman and Allison.		
<b>Enron Statement No. 2.1</b>	<b>Surrebuttal Testimony of Paul D. Reising</b> Responses to rebuttal testimony of Duquesne witness Lahtinen; IBEW witness Moran; and OCA witness Alexander.		
<b>Exhibit 2.1 PDR-8</b>	Revised functional cost of service summary.		
<b>Exhibit 2.1 PDR-9</b>	Revised versions of class-based T & D charges (original Exhibit 2 PDR-4).		
<b>Exhibit 2.1 PDR-10</b>	Revised versions of voltage differentiated rates (original Exhibit 2 PDR-5).		
<b>Enron Statement No. 3.1</b>	<b>Surrebuttal Testimony of Jeffrey A. Brown</b> Responses to Duquesne witness Allison; and IBEW witnesses Schmidt and Moran.		
<b>Enron Statement No. 4.1</b>	<b>Surrebuttal Testimony of Gayle Muench</b> Responses to Duquesne witnesses Allison, Hoffman and Flynn; OCA witness Alexander, and IBEW witness Moran.		
<b>Enron Statement No. 5.1</b>	<b>Surrebuttal Testimony of Lynn R. Coles</b> Responses to rebuttal testimony of IBEW witness Moran; and witnesses Irvin and Karl.		

**FIRST JOINT STIPULATION  
EXHIBIT NO. 4**

**Roger E. Clark, Esq.**  
**Attorney for The Environmentalists**

905 Denston Drive  
 Ambler, PA 19002-3901  
 phone: 215.643.2264  
 fax: 215.628.2830  
 e-mail: rclark@libertynet.org

January 7, 1998

John Moot  
 Skadden, Arps, Slate, Meagher & Flom LLP  
 1440 New York Avenue, N.W.  
 Washington, D.C. 20005-2111

Re: Duquesne Light Company Application for  
 Approval of a Restructuring Plan,  
 Docket No. R-0097104.

Dear Mr. Moot:

Thank you for catching our oversight regarding Roger Colton's surrebuttal testimony. In accordance with the Sixth Interim Order issued by Judge Corbett on December 30, 1997, I am sending you the following updated index of the Environmentalists' testimony and exhibits in the above-referenced proceeding:

Exhibit	Description	Date Identified	Date Admitted
Environmentalists' Statement No. 1	Direct Testimony of David Schoengold		
Ex. DS-1	Resume of David Schoengold		
Ex. DS-2	<i>Environmentalists' Vision for the New Electricity Marketplace</i>		
Ex. DS-3	Return on the Investment to Date for Stockholders		
Ex. DS-4	Total Return to Date for Stockholders		
Ex. DS-5	Methodology for Determining Total Return Of and On Investment for Stockholders Through End of Transition Period		
Ex. DS-6	Proposed Draft for Net Billing Tariff		

## Environmentalists' Index of Testimony and Exhibits

January 7, 1998

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Environmentalists' Statement No. 1-S	Surrebuttal Testimony of David Schoengold		
Environmentalists' Statement No. 2	Direct Testimony of Bruce Biewald		
Ex. BEB-1	Resume of Bruce Biewald		
Ex. BEB-2	Graph of TLG Decommissioning Estimates: 1977-1995		
Ex. BEB-3	<i>Full Environmental Disclosure for Electricity: Tracking and Reporting Key Information, March 1997</i>		
Ex. BEB-4	Better Choice Plan - Three Examples		
Environmentalists' Statement 2-S	Surrebuttal Testimony of Bruce Biewald		
Ex. BEB-5	Economic Analysis of Duquesne Light Company's Perry 1 Investment		
Ex. BEB-6	Economic Analysis of Duquesne Light Company's Beaver Valley 2 Investment		
Ex. BEB-7	Assumptions for Economic Analysis for Perry 1 and Beaver Valley 2		
City of Pittsburgh <i>et al.</i> Statement No. 2 (cosponsored with the Environmentalists)	Direct Testimony of Roger Colton		
Ex. RDC-1	Resume of Roger Colton		
Ex. RDC-2	Summary of Roger Colton's Restructuring Work		
Ex. RDC-3	Summary of Roger Colton's Energy Efficiency Work		
Ex. RDC-4	Number and Percentage of LIHEAP Recipients by Income Range		

## Environmentalists' Index of Testimony and Exhibits

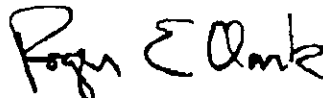
January 7, 1998

Page 3

Ex. RDC-5	Summary of the BOSS and Earned Income Tax Credit Outreach		
Ex. RDC-6	Estimate of Universal Service Program Costs		
Ex. RDC-7	Summary of Universal Service Recommendations		
Ex. RDC-8	Summary of Consumer Research Section of Consumer Education Plan		
Ex. RDC-9	Four Phase Consumer Education Program		
Ex. RDC-10	Consumer Education Evaluation Process		
Ex. RDC-11	Summary of Consumer Education Recommendations		
Ex. RDC-12	Proposed Universal Service Budget		
City of Pittsburgh <i>et al.</i> Statement No. 3-S (cosponsored with the Environmentalists)	Surrebuttal Testimony of Roger Colton		
Ex. RDC-1-S	Memorandum of Residential Mobility and the Low Income Consumer		
Ex. RDC-2-S	Prepayment Meters and Low Income Consumers		

I have also sent this document to you by e-mail at "jmoot@skadden.com". Copies of this letter are being served on all parties of record by facsimile.

Sincerely,



Roger E. Clark

Attorney for the Environmentalists

Copies: All parties of record

**FIRST JOINT STIPULATION  
EXHIBIT NO. 5**

**HSS AND ARI  
INDEX OF TESTIMONY AND EXHIBITS**

<b>Exhibit</b>	<b>Description</b>	<b>Date Identified</b>	<b>Date Admitted</b>
	Prepared Direct Testimony of Dr. Robert B. Weisenmiller, Volume I		
RBW-1	Supplemental Response to Item Nos. HSS-1-001, 21 (Supp.), etc. (corrections to Duquesne's case-in-chief)		
RBW-2	Skadden, Arps letter forwarding narrative prepared by Northbridge Group regarding discovery requests HSS-3-008 and HSS-3-009		
RBW-3	"Generating Assets," April 1995 (Duquesne study re: possible sales of its generating assets)		
RBW-4	Chart, "Best Practices Reduce Total Personnel By 45%"		
RBW-5	Duquesne Fossil Generating Business Unit, Development of a GENCO, Dec. 1996		
RBW-6	Presentation to Project Lead Team - Project Update, July 15, 1996		
RBW-7	Presentation to Project Lead Team - Preliminary Valuation and Operating Cost Allocation, August 5, 1996		
RBW-8	Presentation to Project Lead Team - Asset Valuation and Strategic Options, August 16, 1996		
RBW-9	Presentation to Project Lead Team - Regulatory Recommendations and GENCO Structure, Sept. 13, 1996		
RBW-10	CS First Boston, Materials Prepared for Discussion, Nov. 21, 1996		
RBW-11	Charts, "Generating Costs For Duquesne"		
RBW-12	Table, To Go Cost of Generation, etc.		
RBW-13	Chart, Duquesne System Lambda, 1996		
RBW-14	Duquesne Response to Interrogatory No. HSS-1-72/73 (revised) and attachments (re: RFP bids, etc.)		
RBW-15	Duquesne letter regarding RFPs and bid forms		

WA801:46400.1

<b>Exhibit</b>	<b>Description</b>	<b>Date Identified</b>	<b>Date Admitted</b>
RBW-16	Duquesne Response to Interrogatory No. HSS-1-016 (revised) (Testimony of D.W. Marshall, Investigation into Electric Power Competition, I-940032, filed Nov. 6, 1995)		
RBW-17	West Penn Power Docket No. R-00973981 Interrogatories (AYP Energy, Inc.'s RFP bids)		
RBW-18	Duquesne Response to Interrogatory No. OCA-3-016 (current ECR charge is 12.822 mill/kWh)		
RBW-19	Duquesne Response to Interrogatory No. HSS-1-026		
RBW-20	Excerpts from Alexander Galatic, Written Rebuttal Testimony on Behalf of West Penn Power Company		
RBW-21	Duquesne's Response to HSS-1-015 (revised) -- Protected Materials		
RBW-22	Duquesne's Response to HSS-1-015 (revised) -- Protected Materials		
RBW-23	Duquesne Response to Interrogatory No. OCA-3-001 (credit rating reports)		
RBW-24	Table, Utility Comparison		
RBW-25	Chart, Ranking of DLCo & APS Coal Plants with PJM Coal Plants, Based on Total Expenditures per Net MWh - 1995		
RBW-26	A Report on The Review of Potential Stranded Costs, Duquesne Light Company, August 1997		
RBW-27	Duquesne Response to Interrogatory No. DH-1-28 (settlement agreement between GE and <i>inter alia</i> , Duquesne)		
RBW-28	Executive Summary, Duquesne Light Company (1996 rating agency presentation)		
RBW-29	Tables, DQE 12-month Results; Continued Earnings and Dividend Growth; Consistent Financial Performance -- NatWest Securities Mid-Atlantic/New England Utility Seminar, Sept. 23, 1997		
RBW-30	Duquesne Financial, Sales and Operating Information (1996 rating agency presentation)		
RBW-31	Duquesne Rating Agency Presentation, August 1996		

WA801:46600.1

-2-

<b>Exhibit</b>	<b>Description</b>	<b>Date Identified</b>	<b>Date Admitted</b>
RBW-32	Duquesne Response to Interrogatory Nos. HSS-3-01 and HSS-3-02 (explanation of ratepayer benefits)		
RBW-33	Duquesne Response to Interrogatory No. OCA-1-007 (regulatory assets and decommissioning expenses)		
RBW-34	Duquesne Response to Interrogatory No. HSS-1-044 (regulatory assets in rate base)		
RBW-35	Duquesne Response to Interrogatory No. HSS-1-043 (Supp.) (authorization for claimed regulatory assets: excerpts from 860378 order)		
RBW-36	Duquesne Response to Interrogatory No. HSS-1-043 (Supp.) (authorization for claimed regulatory assets: excerpts from R-870222 order)		
RBW-37	Duquesne Response to Interrogatory of David Hughes Set I, Item No. DH-1-10 (excerpts from Duquesne's 1995 and 1995 Form 10-Ks)		
RBW-38	Duquesne Response to Interrogatory No. HSS-1-030 (revised) (excerpts from Ft. Martin amended proposal re: deferred costs)		
RBW-39	Excerpts from Duquesne 1996 Form 10-K		
RBW-40	Excerpts from Duquesne Response to Interrogatory No. DH-1-18 (Feb. 17, 1983 letter to Duquesne Shareholders)		
RBW-41	Duquesne Response to Interrogatory No DH-1-10 (excerpts from Duquesne's 1995 and 1995 Form 10-Ks)		
RBW-42	Duquesne Response to Interrogatory No. OCA-1-040 (Brunot Island rate base treatment)		
RBW-43	Duquesne Response to Interrogatory No. OCA-3-042 (Brunot Island and Phillips units--no plans to return cold service units to service)		
RBW-44	Duquesne Response to Interrogatory No. ENV-1-024 (excerpts from Sept. 1997 Integrated Resource Plan)		
RBW-45	Duquesne Response to Interrogatory No. HSS-3-03 (excerpts from Pennsylvania PUC Order in P-900485)		
RBW-46	Duquesne Response to Interrogatory No. OCA-1-018 (future use or sale of Brunot Island and Phillips units)		

WAS01:46600.1

-3-

<b>Exhibit</b>	<b>Description</b>	<b>Date Identified</b>	<b>Date Admitted</b>
RBW-47	Duquesne Response to Interrogatory No. OCA-1-008 (Chart, Annual Amortization Amounts)		
RBW-48	Table, All-In Costs of Combined Cycle Plants		
RBW-49	Duquesne Response to Interrogatory No. HSS-1-091 (Schnitzer's natural gas market price forecasts)		
RBW-50	Tables, Wellhead (lower 48) Natural Gas Price Projections (1995)		
RBW-51	Duquesne Response to Interrogatory No. HSS-2-38 (gas transportation costs forecast)		
RBW-52	Duquesne Response to Interrogatory No. HSS-2-34 (2.5% inflation factor sources)		
RBW-53	Table, Percent Change from Previous Period--GDP PPD		
RBW-54	Excerpts from Duquesne Resource Planning Report, July 1, 1996		
RBW-55	Presentation to Project Lead Team - Preliminary Recommendations, August 30, 1996		
RBW-56	Presentation to DQE, Inc. Regarding the Sale of Certain Generating Assets, June 16, 1995		
RBW-57	Table, Comparison of Estimates of Market-Clearing Prices		
	Prepared Surrebuttal Testimony of Dr. Robert B. Weisonmiller, Volume IV		
RBW-58	Presentation to Gary Brandenberger - Draft Presentation for Fall Planning Council, Sept. 5, 1996 (Metzler)		
RBW-59	Presentation to Gary Brandenberger - Draft Presentation for Fall Planning Council, Sept. 5, 1996 (Metzler)		
RBW-60	Petition of Duquesne to discontinue normal operation of Phillips Power Station, South Heights, Pennsylvania		
RBW-61	Calpine Acquires 120 MW Gas-Fired Facility, Non-Nuclear Electric Power Generation, etc.		

WA901:46600.1

<b>Exhibit</b>	<b>Description</b>	<b>Date Identified</b>	<b>Date Admitted</b>
RBW-62	Errata to Prepared Testimony of Dr. Robert B. Weisenmiller		

WAS01:46600.1

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**ERRATA**

The following corrections should be made to the testimony of Dr. Robert B. Weisenmiller:

(a) Prepared Direct Testimony:

1. At page 41, line 12, after "effect." insert "See Exh. RBW-18."
2. At page 118, line 16, change "West Penn's" to read "Duquesne's".
3. At page 123, line 5, change "EIA, Penelec, PECO, AYP" to read "EIA, Penelec, AYP".

(b) Prepared Surrebuttal Testimony:

1. At page 1, add the following entities to the list of HSS and ARI members sponsoring Dr. Weisenmiller's testimony:

South Hills Health System (all locations)  
University of Pittsburgh Medical Center (all locations)

WAS01:46721.1

**FIRST JOINT STIPULATION  
EXHIBIT NO. 6**

**SYSTEM COUNCIL U-10, INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS  
INDEX OF TESTIMONY AND EXHIBITS**

<i>Exhibit</i>	<i>Description</i>	<i>Date Identified</i>	<i>Date Admitted</i>
<b>IBEW Statement No. 1</b>	<b>Rebuttal Testimony of Timothy Moran</b> (Generation suppliers should not be allowed to provide metering, billing, and other customer service functions. Duquesne should not be required to sell or shut down any of its power plants.)		
Schedule TM-1	Rebuttal testimony of William Schmitt from the PP&L Restructuring Case		
Schedule TM-2	Number of Duquesne Light Company employees by year from 1986-1996 (HSS-2-017)		
Schedule TM-3	Duquesne Light Company Distribution of Salaries and Wages for 1996 (FERC Form 1, pages 354-355)		

**FIRST JOINT STIPULATION  
EXHIBIT NO. 7**

PENNSYLVANIA PUBLIC UTILITY COMMISSION  
v.  
DUQUESNE LIGHT COMPANY

Application for Approval of a Restructuring Plan  
Pursuant to 66 Pa. C.S. §2806(d)  
Docket No. R-00974104

**INDEX OF MAPSA TESTIMONY AND EXHIBITS**

<b><i>Exhibit</i></b>	<b><i>Description</i></b>	<b><i>Date Identified</i></b>	<b><i>Date Admitted</i></b>
MAPSA Statement No. 1	Direct Testimony of Whitfield A. Russell (Addressing competitive issues raised by Duquesne's Customer Choice Plan)		
Exhibit WAR-1	Whitfield A. Russell Curriculum Vitae		
Exhibit WAR-2	Chart Showing Monthly Firm Available Transmission Capacity for Allegheny Power		
Exhibit WAR-3	1996 Duquesne System Lambda		
Exhibit WAR-4	Calculation of Duquesne CGC Based Upon 1999 CCGT [1]		
Exhibit WAR-5	ERRATA to Prepared Direct Testimony of Whitfield A. Russell		
MAPSA Statement No.1-SR	Prepared Surrebuttal Testimony of Whitfield A. Russell		

**FIRST JOINT STIPULATION  
EXHIBIT NO. 8**

**INDEX OF TESTIMONY AND EXHIBITS  
OF INTERVENOR NEV EAST, L.L.C.,  
SUBMITTED PURSUANT TO SIXTH INTERIM ORDER**

<i>Statement/Exhibit</i>	<i>Description</i>
<b>NEV Statement No. 1</b>	Direct Testimony of David Magnus Boonin (regarding the unbundled rate for generation, CTC methodology, unbundling of all tariffs, and billing and metering issues)
Exhibit NEV/DMB #1	Resume of David Magnus Boonin
Exhibit NEV/DMB #2	Chart setting forth methodology for reconciling the CTC
<b>NEV Statement No. 2</b>	Direct Testimony of Nancy I. Day (regarding the importance of unbundling distribution services to the formation of a competitive energy market)
Exhibit NEV/NID #1	Resume of Nancy I. Day

\*Pursuant to the December 30, 1997 Order of Administrative Law Judge John H. Corbett, Jr. and agreement of the parties, the foregoing testimony will be admitted into the record by stipulation and without cross-examination.

**FIRST JOINT STIPULATION  
EXHIBIT NO. 9**

OFFICE OF SMALL BUSINESS ADVOCATE  
INDEX OF TESTIMONY AND EXHIBITS

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<u>Statement/Exhibit</u>	<u>Description</u>
OSBA Statement No. 1*	Direct testimony and Exhibit of Brian Kalcic (recommending adjustments in Duquesne's distribution-related revenue requirements and its rate redesign plan, and offering comments on Duquesne's proposed Phase-In plan.)
OSBA Exhibit No. 1* (with Schedules BK-1, BK-2 and BK-3)	Schedules summarizing Duquesne's functionalized revenue requirements including OSBA's proposed adjustments
OSBA Statement No. 1R**	Rebuttal Testimony and Exhibit of Brian Kalcic (addressing issues raised by other witnesses regarding the pace of stranded cost recovery, the determination of CTC, allocation of universal service costs and proposals for phase-in)
OSBA Exhibit No. 1R** (Schedule BK-1R)	Amortization of DII recommended stranded costs over 4 versus 7 years
OSBA Statement No. 1S***	Surrebuttal Testimony of Brian Kalcic (responding to Co. witness Lahtinen regarding use of realized rather than claimed rate of return for unbundling rates and DII witness Baron regarding allocation of CTC revenue responsibility to all classes)

\* Served November 7, 1997

\*\* Served December 2, 1997

\*\*\* Served December 11, 1997

**FIRST JOINT STIPULATION  
EXHIBIT NO. 10**

**OFFICE OF CONSUMER ADVOCATE  
INDEX OF TESTIMONY AND EXHIBITS**

<i><b>Exhibit</b></i>	<i><b>Description</b></i>	<i><b>Date Identified</b></i>	<i><b>Date Admitted</b></i>
<b>OCA Statement No. 1</b>	<b>Direct Testimony of Matthew L Kahal (Evaluation of Duquesne's proposed stranded cost plan)</b>		
Schedule MIK-1	OCA Overall Stranded Cost Summary		
Schedule MIK-2	Excess Pre-Tax Earnings During Transition Period		
Schedule MIK-3	Retail Rate Comparisons for 1996		
Schedule MIK-4	DRJ vs. Duquesne Inflation Rate Forecasts		
Schedule MIK-5	Derivation of the Discount Rate		
Schedule MIK-6	Productivity Enhancement Savings		
Schedule MIK-7	PECO and West Penn Power Life-Extension Costs for Coal Plants		
Schedule MIK-8	Cheswick Life Extension Costs and Net Benefits		
Schedule MIK-9	Generation Net Merger		
<b>OCA Statement No. 1S</b>	<b>Surrebuttal Testimony of Matthew L. Kahal (Response to Rebuttal Testimony on stranded cost issues)</b>		
Schedule MIK-1 UPDATE	OCA Overall Stranded Cost Summary		
Schedule MIK-6 UPDATE	Productivity Enhancement Savings		
Schedule MIK-10	Projected Pre-Tax Operating Losses During Transition		
<b>OCA Statement No. 2</b>	<b>Direct Testimony of Douglas C. Smith (Market Price Analysis)</b>		
Exhibit DCS-1	Resume of Douglas C. Smith		
Exhibit DCS-2A	New Combined Cycle Non-Fuel Cost Assumptions		

Exhibit DCS-2B	New Combustion Turbine Non-Fuel Cost Assumptions		
Exhibit DCS-3	Spring 1997 DRI Fuel Price Escalation Rates		
Exhibit DCS-4	APS-DQL Market Price Estimate		
Exhibit DCS-5	DQL Weighted Generation Price		
OCA Statement No. 2S	Surrebuttal Testimony of Douglas C. Smith (Response to rebuttal testimony on market price issues)		
OCA Statement No. 3	Direct Testimony of Thomas S. Catlin (Regulatory asset issues, nuclear and fossil decommissioning, taxes and other transition costs)		
Schedule TSC-1	Summary of Regulatory Assets and Other Transition Expenses		
Schedule TSC-2	Summary of Decommissioning Funding Requirements as of 12/31/98		
OCA Statement No. 3S	Surrebuttal Testimony of Thomas S. Catlin (Response to rebuttal testimony on preaccrued nuclear outage costs and unamortized debt costs)		
OCA Statement No. 4	Direct Testimony of Lee Smith (Rate design, unbundling, cost allocation, and CTC design)		
Exhibit LS-1	Summary of Qualifications and Experience		
Exhibit LS-2	Calculation of Market Price		
Exhibit LS-3	1996 Administrative & General Expenses		
Exhibit LS-4	Retail Cost of Service CTC Proposal		
Exhibit LS-5	Retail CTC/Calculation of Levelized CTC		
Exhibit LS-6	Unbundled Rate Design Residential - Rate RS		
OCA Statement No. 4S	Surrebuttal Testimony of Lee Smith (Response to testimony on treatment of ancillary service costs, line losses, A&G adder, and rates of return)		
Exhibit LS-7	Revised LS-4 (Retail Cost of Service)		

Exhibit LS-8	Revised LS-2 (Calculation of Market Price)		
Exhibit LS-9	Revised LS-5 (Retail CTC)		
Exhibit LS-10	Revised LS-6 (Unbundled Rate Design)		
OCA Statement No. 5	Direct Testimony of Barbara Alexander (Consumer education and consumer protection issues)		
Exhibit BA-1	Resume of Barbara Alexander		
Exhibit BA-2	Vermont Consumer Information and Education Plan		
Exhibit BA-3	California Statewide Consumer Education Plan		
Exhibit BA-4	Massachusetts Department of Public Utilities Code of Conduct		
OCA Statement No. 5R	Rebuttal Testimony of Barbara Alexander (Response to testimony on provision of generation services to default customers and supplier-only bill option)		
OCA Statement No. 5S	Surrebuttal Testimony of Barbara Alexander		
Exhibit BA-S-1	Executive Summary of New Hampshire Pilot Program Survey Report		
Exhibit BA-S-2	CAPUC Fact Sheets on Consumer Education Plan		
Exhibit BA-S-3	Recommendations of the Maine Consumer Education Advisory Board		
OCA Statement No. 6	Direct Testimony of Nancy Brockway (Universal Service Issues)		
Exhibit NB-Duq-1	Resume and Curriculum Vitae of Nancy Brockway		
Exhibit NB-Duq-2	Duquesne Estimation of Potential CAP Eligible Customers		
Exhibit NB-Duq-3	Universal Service Costs - Per kWh Allocator		
Exhibit NB-Duq-4	Development of Non-Production Revenue Allocator		

<b>OCA Statement No. 6S</b>	<b>Surrebuttal Testimony of Nancy Brockway (Universal Service Issues)</b>		
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**FIRST JOINT STIPULATION  
EXHIBIT NO. 11**

Pennsylvania Public Utility Commission

v.

Duquesne Light Company

Docket No. R-00974104

**Index\* of OTS Testimony And Exhibits Not Yet Admitted**

Exhibit	Description	Date Identified	Date Admitted
OTS Statement No. 3	Direct Testimony of Paul M. Yarolin (concerning Universal Service and rate unbundling)		
OTS Cross Examination Exhibit No. 3	On-the-Record Data Request Response (O'Brien Number 1) concerning the difference in balances associated with cold reserve units		
OTS Cross Examination Exhibit No. 4	On-the-Record Data Request Response (O'Brien Number 4) concerning recovery of decommissioning costs		
OTS Cross Examination Exhibit No. 5	On-the-Record Data Request Response (O'Brien Number 5)** concerning recovery of decommissioning costs		

\* OTS reserves the right to request admission of additional exhibits upon receipt of all responses to On-the-Record Data Requests.

\*\* OTS has requested that this On-the-Record Data Request Response be supplemented to properly respond to the request.

**FIRST JOINT STIPULATION  
EXHIBIT NO. 12**

**PENNSYLVANIA RETAILERS ASSOCIATION  
INDEX OF TESTIMONY**

EXHIBIT	DESCRIPTION	DATE IDENTIFIED	DATE ADMITTED
PRA Statement No. 1	Direct Testimony of Chris K. Albrecht (Phase-in Procedure for retail competition)		

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Application of Duquesne Light :  
Company for Approval of its : Docket No. R-00974104  
Restructuring Plan :

**ENRON**  
**DOCKETED**  
JAN 15 1998

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DIRECT TESTIMONY ON BEHALF OF  
ENRON POWER MARKETING, INC.

STATEMENTS 1.0 THROUGH 5.0

Dated: November 7, 1997

DOCUMENT  
FOLDER

**INDEX OF ENRON POWER MARKETING, INC.'S**  
**DIRECT TESTIMONY**

STATEMENT NO. 1	JAMES D. STEFFES
STATEMENT NO. 2	PAUL D. REISING
STATEMENT NO. 3	JEFFREY A. BROWN
STATEMENT NO. 4	GAYLE MEUNCH
STATEMENT NO. 5	LYNN R. COLES

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

**JAMES D. STEFFES**

ON BEHALF OF  
ENRON POWER MARKETING, INC.

DOCKET NO. R-00974104

RE: APPLICATION OF DUQUESNE  
COMPANY FOR APPROVAL OF  
RESTRUCTURING PLAN

NOVEMBER 7, 1997

DOCKET NO. R-00974104  
TESTIMONY OF JAMES D. STEFFES

TABLE OF CONTENTS

I.	STATEMENT OF QUALIFICATIONS .....	1
II.	ENRON'S VISION FOR THE RESTRUCTURED ELECTRICITY SERVICES INDUSTRY .....	3
III.	CODE OF CONDUCT .....	6
IV.	PRESENTATION OF WITNESSES .....	15

1 I. STATEMENT OF QUALIFICATIONS

2 Q. WHAT IS YOUR NAME AND ADDRESS?

3 A. My name is James D. Steffes and my business address is 1400 Smith Street, Houston,  
4 Texas, 77002.

5 Q. BY WHOM ARE YOU EMPLOYED?

6 A. I am a Director of Governmental Affairs for Enron Corp. ("Enron").

7 Q. PLEASE PROVIDE A DESCRIPTION OF ENRON.

8 A. Enron Corp., one of the world's largest integrated natural gas and electricity companies  
9 with approximately \$21 billion in assets, operates one of the largest natural gas  
10 transmission systems in the world; is the marketer of natural gas and electricity in North  
11 America; is a leading participant in liberalized energy markets in the United Kingdom  
12 and the Nordic Countries; markets natural gas liquids worldwide; manages the largest  
13 portfolio of fixed-price natural gas risk management contracts in the world; is among the  
14 leading entities arranging new capital to the energy industry; owns a majority interest in  
15 Enron Oil & Gas Company, one of the largest independent (non-integrated) exploration  
16 and production companies in the United States; owns a majority interest in Enron Global  
17 Power & Pipelines L.L.C., which is owner and manager of operating power plants and  
18 natural gas pipelines around the world; is one of the largest independent developers and  
19 producers of electricity in the world; and is a major supplier of solar and wind energy  
20 worldwide. Enron's internet address is [www.enron.com](http://www.enron.com) and its common stock is traded  
21 under the ticker symbol, "ENE."

1 Q. **WHAT ARE YOUR RESPONSIBILITIES WITH ENRON?**

2 A. I am responsible for Enron's electric retail legislative and regulatory efforts in  
3 Pennsylvania, New Jersey, Maryland, Delaware, the District of Columbia, Illinois,  
4 Missouri and Kansas. My primary responsibility involves trying to bring competitive  
5 reform to the electric industry.

6 Q. **WHAT PRIOR EXPERIENCE DO YOU HAVE?**

7 A. Before working at Enron, I worked at Anderson Consulting in systems integration and  
8 business re-engineering.

9 Q. **WHAT IS YOUR EDUCATIONAL BACKGROUND?**

10 A. I graduated from Georgetown University in 1989, and received a Masters in Public  
11 Policy from the John F. Kennedy School of Government at Harvard University in  
12 1994.

13 Q. **HAS ENRON PARTICIPATED IN THE RESTRUCTURING DEBATE IN**  
14 **PENNSYLVANIA?**

15 A. Yes. Enron participated in negotiating and encouraging the enactment of the  
16 Electricity Generation Customer Choice and Competition Act (the "Competition Act"),  
17 and continues to be involved with the Commission's proceedings and working groups  
18 relating to implementing direct access for electricity.

1     **II.     INTRODUCTION AND SUMMARY**

2     **Q.     WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3     A.     In my testimony I will describe a vision for the future of retail electric services in a  
4           competitive environment and the policy choices necessary to achieve that vision and will  
5           also present the appropriate code of conduct for Duquesne to adopt.

6     **Q.     DESCRIBE YOUR VISION FOR A COMPETITIVE ELECTRIC SERVICES**  
7     **MARKET.**

8     A.     My vision centers around one primary objective: meaningful choices for all consumers  
9           of electricity -- from homeowners to the largest industrial users. Ensuring that all  
10          consumers have meaningful choices requires policy choices which provide numerous  
11          suppliers, not just the incumbent utility, with access to consumers. In an open and  
12          competitive market for retail electric services, consumers will have the ability:

- 13                 •     to choose a new supplier of electricity,
- 14                 •     to receive a single bill for those services from the supplier of their choice,
- 15                 •     to have access to various service alternatives from their electric suppliers,  
16                         including new metering which will enable suppliers to provide real time  
17                         pricing information,
- 18                 •     to provide information to aid the consumer in conservation decisions,
- 19                 •     to reduce the administrative costs of serving customers,
- 20                 •     to identify opportunities for energy efficiency investments, and  
21                 •     more easily aggregate customer load for scheduling purposes.

22                 In this environment, consumers benefit from lower costs, better service and  
23                 improved service offerings. Consumers will see lower costs because the availability of

1 alternative suppliers will create price competition among suppliers, as it does in every  
2 open market. Suppliers will look for ways to cut costs, to find less expensive supplies  
3 and increase the efficiency with which they make delivery of those supplies. Consumers  
4 will see better service and improved service offerings for the same reason -- competing  
5 suppliers will distinguish themselves by the reliability of their service, the quality of  
6 information they provide, the accuracy of their bills, and the precision with which they  
7 fill a specific customer's needs. Services will be designed for specific residential,  
8 commercial and industrial customers. Opportunities to lower customers bills, not just  
9 their rates, will be identified. Suppliers will distinguish themselves on their  
10 responsiveness to customer inquiries and concerns.

11 **Q. WHAT POLICY CHOICES ARE REQUIRED TO MAKE THIS VISION**  
12 **REALITY?**

13 A. The Commission must:

- 14 1. Provide equal, nondiscriminatory access to essential facilities to  
15 competing suppliers.
- 16 2. Permit competition in all services that can be competitively provided.
- 17 3. Prevent utilities from using their control of essential facilities to advantage  
18 their competitive businesses.

19 Equal access to essential facilities means open access to transmission and  
20 distribution service under unbundled tariffs, which all providers, including the utility or  
21 its affiliate, must use. Incumbent suppliers (and their affiliates) must be required to use  
22 the same tariff options that are available to competing suppliers. Otherwise utilities will  
23 have an incentive to structure tariffs which are inferior to the use the utility or its affiliate

1 makes of its own system. In the natural gas business the Federal Energy Regulatory  
2 Commission required open access tariffs and required that pipelines conduct sales, if at  
3 all, only through a separate affiliate which

- 4 1. was separated from the pipeline by enforceable (and enforced) standards of  
5 conduct,
- 6 2. had to use the same open access transmission tariffs as its competitors, and
- 7 3. could only serve those customers who affirmatively chose its service -- i.e.  
8 they had to compete for customers' favor, they didn't simply inherit  
9 customers from the pipeline.

10 This approach, which I recommend to the Commission in this proceeding, has  
11 several important benefits. First, it forces the affiliate to offer customers a better deal.  
12 Second, it forces the utility to propose tariffs that work because the utility's own affiliate  
13 will have to use the same tariff. Third, it keeps the utility from using overt and covert  
14 attempts to discourage customers from switching. If the utility or its affiliate is allowed  
15 to serve everyone who doesn't choose, it will have a powerful incentive to discourage  
16 switching by erecting barriers to switching or suggesting that safety, reliability or service  
17 quality will be threatened if the customer switches.

18 Permitting competition in all competitive services means unbundling all services  
19 which the utility currently embeds in its service, and requiring that those services be  
20 separately priced and offered. These services include not just transmission and  
21 distribution, but also metering, billing and customer information services. It also means  
22 allowing competing suppliers to offer not just the commodity but also these other

1 competitive services. Metering, billing and customer information services are not  
2 "natural monopolies." They can be competitively provided and are competitively  
3 provided in other industries. Competition can lower these costs, improve them and open  
4 the door to other value added services to consumers.

5 Preventing utilities from using their transmission and distribution monopolies to  
6 advantage their sales and other competing business lines means putting in place standards  
7 of conduct governing the relationship between the generation and distribution businesses.  
8 It also means opening the interface with the customer. The competitive provider must be  
9 allowed to procure the transmission and distribution service, pay the utility for it, and  
10 provide the customer with a single bill. In competitive businesses, suppliers are allowed  
11 to arrange for delivery with a delivery service company and provide a single bill to their  
12 customer. Imagine the impediments to competition and good customer service if, for  
13 example, a supplier of goods were forced to have its customers separately arrange and/or  
14 pay for delivery or, worse yet, forced to receive payment or send the bill through a  
15 competitor.

16 **III. CODE OF CONDUCT**

17 **Q. SHOULD THE COMMISSION ESTABLISH A SPECIFIC CODE OF CONDUCT**  
18 **TO WHICH DUQUESNE IS REQUIRED TO ADHERE?**

19 A. Yes. A strong code of conduct is essential if fair competition is going to develop in the  
20 Duquesne service territory. Customers will benefit from the transition to direct access  
21 only if the transition ultimately results in effective competition.

22 **Q. WHY IS IT NECESSARY TO ESTABLISH A CODE OF CONDUCT**  
23 **APPLICABLE TO DUQUESNE LIGHT COMPANY?**

1 A. Duquesne Light Company is the incumbent monopoly provider of electric service in its  
2 service territory. As such, it has a tremendous advantage over other suppliers, an  
3 advantage that will continue as the transition to direct access occurs. Duquesne currently  
4 has virtually 100% of the market, high name recognition and a long term relationship  
5 with all of its customers as a result of its historic monopoly franchise. Moreover, as the  
6 transition to competition occurs, Duquesne will continue to be the monopoly provider of  
7 transmission and distribution services, essential facilities for all suppliers. This  
8 "incumbency advantage" has proven to be quite large. Exhibit 1 JDS-1 to my testimony  
9 shows the success of the incumbent or its affiliate in various retail access pilots or  
10 programs around the Country. As can be seen, unaffiliated suppliers have fared well in  
11 most cases. In light of these facts, caused in my view by the EDC's historic monopoly  
12 position as well as its continuing role as the monopoly provider of transmission and  
13 distribution services, it is essential to the development of competition that the  
14 Commission establish a clear separation between the monopoly, regulated operations of  
15 Duquesne and its unregulated supplier and other affiliate roles.

16 **Q. HAS THE PUC RECOGNIZED THE NEED FOR A CODE OF CONDUCT IN**  
17 **ORDER TO FACILITATE THE DEVELOPMENT OF A COMPETITIVE**  
18 **MARKET?**

19 A. Yes. The Commission has established that a Code of Conduct for each EDC will be  
20 established both on a permanent basis and on an interim basis. Currently, each EDC is  
21 subject to an interim Code of Conduct as a result of the Commission's Order approving  
22 terms and conditions for the pilot programs.

23 **Q. IS THE INTERIM CODE OF CONDUCT ESTABLISHED ON A TEMPORARY**  
24 **BASIS BY THE COMMISSION FOR DUQUESNE PILOT SUFFICIENT?**

1 A. No. The Code of Conduct adopted by the Commission for the pilots was the Code of  
2 Conduct proposed by the Pennsylvania Electric Association (“PEA”) and was clearly  
3 designed to apply only on an interim basis. This Code is extremely limiting, fails to  
4 cover significant issues and has a number of qualifiers that make it wholly inappropriate  
5 to utilize as a permanent Code of Conduct to assure the development of a competitive  
6 market. Moreover, this Code of Conduct does not deal in any way with the need for  
7 separation of Duquesne’s regulated and unregulated activities or for the need to establish  
8 cost accounting and other cost separation rules. I discuss the PEA Code of Conduct in  
9 greater detail below.

10 **Q. WHAT CODE OF CONDUCT SHOULD THE COMMISSION ADOPT FOR**  
11 **DUQUESNE LIGHT COMPANY?**

12 A. I propose that the Commission adopt the Code of Conduct that has been proposed by  
13 another EDC — Portland General Electric Company (“PGE”) — as part of its Customer  
14 Choice Program filed earlier this year. This Code (which is attached as Exhibit 1, JDS-2  
15 to my testimony), is a comprehensive set of rules which clearly delineates the  
16 relationship between the EDC and its affiliated competitive electric suppliers and assures  
17 a level playing field for all other suppliers. The PGE Code of Conduct is fair both to the  
18 EDC and the supplier. Duquesne or other EDCs can hardly argue that it unfairly tilts in  
19 favor of suppliers since it actually has been offered by an incumbent electric utility.

20 **Q. WHAT ARE THE ESSENTIAL ELEMENTS OF THE PORTLAND GENERAL**  
21 **CODE OF CONDUCT.**

22 A. The essential terms can be summarized as follows:

1           1.     Equality of treatment and non-discrimination. The Portland General Code of  
2           Conduct requires that the EDC and all electric service providers (ESPs) be treated  
3           equally with respect to the provision of any regulated services or products within the  
4           company's service territory. All regulated services are required to be available to all  
5           ESPs simultaneously and on a comparable basis. That is, any discounts or special deals  
6           must be made available to all and not just the affiliate. To ensure that all ESPs have  
7           equal access to service offerings made by the EDC, the Code of Conduct requires that all  
8           such offerings must be posted electronically on a widely available basis if they are  
9           offered to the affiliated ESP.

10          2.     Tying. The Code of Conduct prohibits the EDC from requiring that any ESP  
11          purchase any product or service from an affiliate as a condition of receiving a regulated  
12          service or product.

13          3.     Information. Again, the EDC is required to treat all ESPs equally and on a non-  
14          discriminatory basis. All requests for information must be processed in the same manner  
15          and in the same period of time. An EDC may not under any circumstances provide  
16          information preferences to affiliates. An affiliated ESP may not receive preferential  
17          access to any non-public information regarding the distribution system and end use  
18          consumers which is not made available to non-affiliated ESPs.

19                 In addition, the EDC employees are prohibited from sharing the following types  
20          of information with its affiliated ESP or any other ESP:

- 21                 (a)     Any information about customers that was acquired from an affiliated ESP  
22                 or a non-affiliated ESP;

1 (b) Any market information pertaining to end user customers developed by  
2 the EDC in the course of responding to requests for service; and

3 (c) Any information where the end user customer has not provided prior  
4 written consent to the release of the information.

5 4. Promotion of the affiliate ESP. The EDC is prohibited from promoting any  
6 affiliated electric supplier and may not in any way represent that an advantage accrues to  
7 end user consumers (or anybody else) simply because the affiliate supplier maintains a  
8 relationship with the EDC. The EDC is specifically prohibited from engaging in any  
9 joint advertising or marketing programs with its affiliate and shall not promote or market  
10 any products or services offered by its affiliate.

11 5. Shared employees. Employees that provide regulated transmission and  
12 distribution services for the EDC shall not be shared with an affiliate electric service  
13 provider. Physically separated offices are required and all shared facilities are required  
14 to be allocated between the two companies or divisions. The company and its affiliated  
15 ESPs are required to keep separate books of accounts and records.

16 6. Corporate identification. The affiliated electric service provider is prohibited  
17 from using the name, logo, service mark, trademark or trade name of the EDC. This is an  
18 essential requirement if the separation of the EDC and the electric service provider are to  
19 have real meaning with consumers. The results of retail access programs to date show  
20 that the use of the EDC's name provides a tremendous marketing advantage to the EDC.  
21 Exhibit 1 JDS-3 shows the dramatic difference in market share when an EDC or its  
22 affiliate markets using the EDC name and when it does not. This is an advantage that

1 clearly can spell the difference between a successful move to full competition — and  
2 failure. Moreover, the prohibition of the use of the EDC name also sends a clear signal  
3 to all employees and others to help identify to them whether they are providing regulated  
4 or unregulated competitive services. In this way, all employees will "be on notice" as to  
5 whether they are in fact honoring the separation and other requirements of the Code and  
6 will facilitate in "self policing."

7 7. Dispute resolution and penalties. The Code requires that the company establish a  
8 dispute resolution procedure which requires them to investigate allegations of violations  
9 and maintain a log of such complaints and their resolution. The log will be subject to  
10 review by the Commission to assist in the compliance process.

11 **Q. WHY IS THE PORTLAND GENERAL CODE OF CONDUCT SUPERIOR TO**  
12 **OTHER PROPOSED CODES?**

13 A. The Portland General Code of Conduct is a comprehensive yet succinct set of rules that  
14 will help to assure a "level playing field" between EDC affiliated suppliers and other  
15 suppliers attempting to bring competitive alternatives to customers in the Duquesne Light  
16 Company service territory. Moreover, the Commission can be assured that this is a  
17 workable and fair alternative since it has been proposed by an electric distribution  
18 company for use in its service territory in its *dealings* with its affiliates and other  
19 suppliers.

20 **Q. HAS DUQUESNE PROPOSED A CODE OF CONDUCT TO GOVERN THE**  
21 **RELATIONSHIP BETWEEN ITS REGULATED OPERATIONS AND ITS**  
22 **UNREGULATED COMPETITIVE SUBSIDIARIES AND ACTIVITIES?**

1 A. Yes. Duquesne witness Hoffman has proposed a Code of Conduct for application to its  
2 "retail services."<sup>1</sup>

3 **Q. IS THE DUQUESNE PROPOSED CODE SUFFICIENT IN YOUR VIEW TO**  
4 **ASSURE FAIRNESS TO UNAFFILIATED SUPPLIERS AND TO ENABLE THE**  
5 **DEVELOPMENT OF A COMPETITIVE MARKET FOR DUQUESNE?**

6 A. No. The Standards of Conduct adopted by Portland General and that I am adopting here  
7 are far more comprehensive than are those proposed by Duquesne in its Code of Conduct  
8 governing retail services. For example, Duquesne addresses "Separation of Functions"  
9 with the mere statement that Duquesne employees engaged in the provision of Regulated  
10 Services shall function independently from those engaged in providing unregulated  
11 services. PGE, on the other hand, mandates that employees with responsibility for  
12 operation of the distribution system in any capacity shall not be shared with an affiliate  
13 ESP or the Company's wholesale merchant function, and further provides for the  
14 physical separation of such employees. While Portland General's Standards of Conduct  
15 flatly directs that separate books of accounts and records will be kept by the Company  
16 and the ESP, Duquesne's Code provides only that the costs of any support services  
17 provided to Unregulated Services employees shall be allocated on a nondiscriminatory  
18 basis which reflects the degree to which employees caused the costs to be incurred. This  
19 is obviously insufficient.

20 Duquesne's Code of Conduct states that its Regulated Services employees shall  
21 not provide preferential treatment to Duquesne employees engaged in Unregulated  
22 Services, and that Regulated Services will be offered without "undue" discrimination

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<sup>1</sup> Duquesne Exhibit FH-2.

1 regardless of whether the customer purchases Unregulated Services from Duquesne or an  
2 affiliate. PGE's Standards of Conduct are worded more strictly on this subject, and  
3 require the Company to "strictly enforce" tariff provisions for which there is no  
4 discretion in the application of the provision, and to apply tariff provisions in the same  
5 manner to similarly situated ESPs, if discretion may be exercised by the terms of the  
6 tariff. The EDC "shall not" give its affiliated ESP or customers preference over non-  
7 affiliates or their customers in matters relating to any regulated services or products  
8 provided by it. Further, the PGE Standards of Conduct require that all regulated services  
9 offered by the Company be available to all ESPs simultaneously and on a comparable  
10 basis. This specifically includes any discounts, rebates, and fee waivers. Portland  
11 General's Standards also expressly prohibit product tying of regulated products to any  
12 product or service offered by an affiliated ESP.

13 Another area in which Portland General's Standards of Conduct are more explicit  
14 and comprehensive than are Duquesne's is Information Sharing. Duquesne Regulated  
15 Services employees are prohibited from releasing supplier electricity charges provided to  
16 them for billing purposes to Unregulated Services employees, and must provide any  
17 information transferred to Unregulated Services employees to any nonaffiliate upon  
18 request. Portland General requires the Company to process all similar requests for  
19 information in the same manner and in the same period of time, and specifically prohibits  
20 provision of information to an affiliated ESP without a request from the affiliate, in  
21 situations where non-affiliated ESPs would have to make a request in order to receive the

1 information. Preferential access to non-public information regarding the distribution  
2 system or End Use Customers is also prohibited.<sup>2</sup>

3 **Q. DOES THE DUQUESNE PROPOSAL INCLUDE A DISPUTE RESOLUTION**  
4 **PROCEDURE?**

5 A. Yes. Duquesne has stated that it will establish and file with the Commission a dispute  
6 resolution procedure to address complaints that the Code of Conduct has been violated.  
7 In contrast, Portland General has expressed the same intent, but has also stated that the  
8 dispute resolution procedure will, at a minimum, designate a person to conduct an  
9 investigation and respond to the complainant in writing within 30 days of receiving the  
10 complaint. The response shall include a description of action taken and inform the  
11 complainant of his right to file a complaint with the Commission if the results of the  
12 investigation are not satisfactory. All complaints shall be maintained in a log subject to  
13 annual review by the Commission, including a written statement as to the complaint and  
14 its resolution, or reason why it is still pending.

15 Most importantly, Portland General, unlike Duquesne, explicitly prohibits the  
16 Company from promoting any affiliated ESP, including prohibition of joint marketing.  
17 Further, the affiliate ESP may not use the name, logo, service mark, trademark, or trade  
18 name of the Company. In short, “the Company shall in no way promote its affiliated  
19 ESP.” Duquesne’s Code of Conduct does not address these issues, which are some of the  
20 most important in controlling the incumbency advantage of Duquesne.

---

<sup>2</sup> The Codes of Conduct of both Duquesne and Portland General protect confidential customer information from release.

1                   Accordingly, the Commission should decline to adopt the Duquesne proposal and  
2                   instead impose the Portland General Code of Conduct contained in my Exhibit 1, JDS-2.

3                   **IV. PRESENTATION OF WITNESSES**

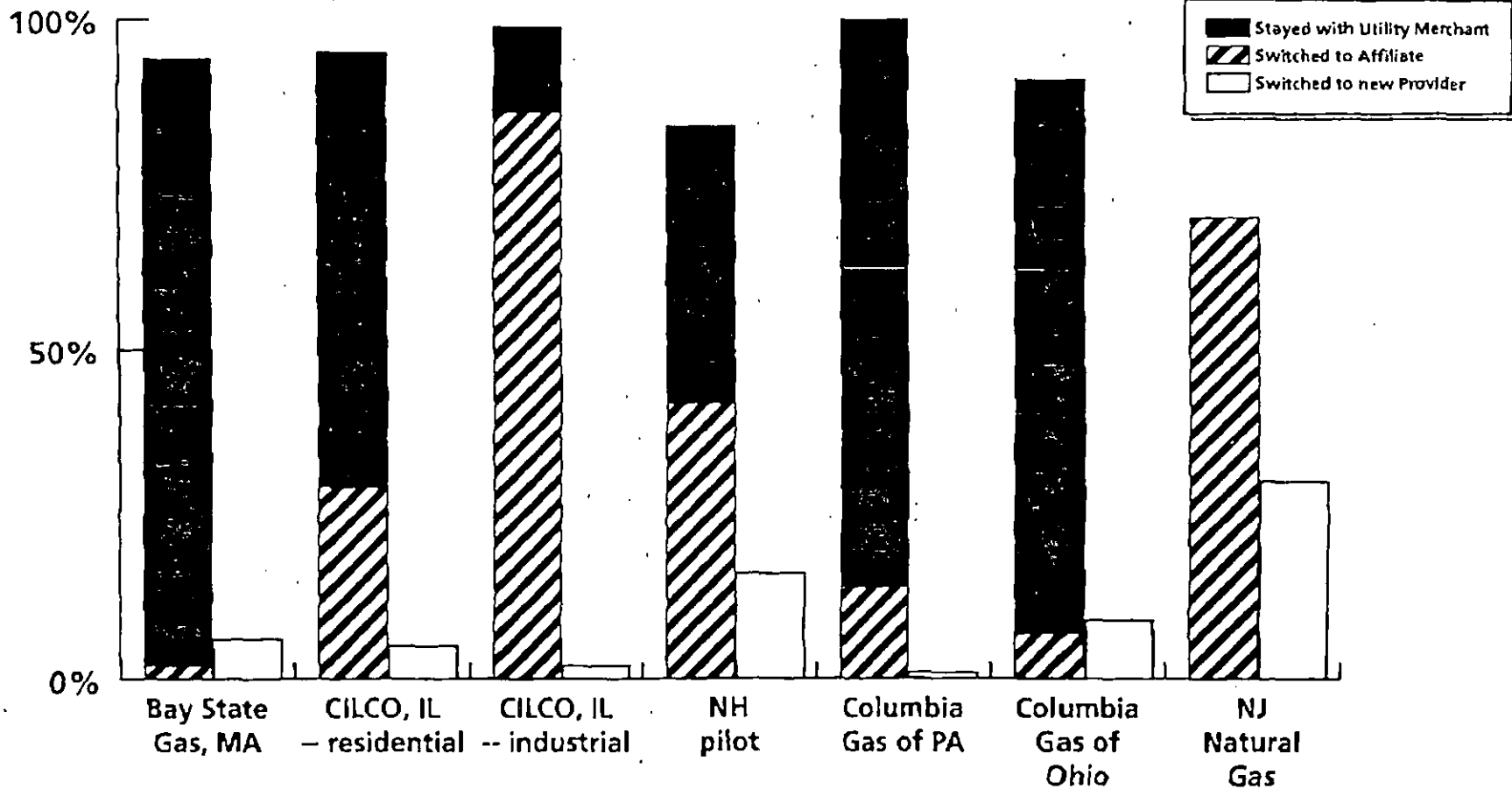
4                   **Q. PLEASE DESCRIBE THE WITNESSES THAT WILL BE PRESENTING**  
5                   **DIRECT TESTIMONY FOR ENRON IN THIS PROCEEDING.**

6                   A. Mr. Lynn Coles from R.W. Beck Consulting will discuss the necessary rules, terms,  
7                   and rates for Enron's usage of Duquesne's transmission and distribution system and  
8                   present a "pro forma supplier tariff." Mr. Paul Reising, a principal with R.W. Beck,  
9                   will present Enron's alternative proposal for a Distribution Services tariff, and discuss  
10                  the technical issues regarding the unbundling and rate design of Duquesne's wire and  
11                  non-wire services. Mr. Jeffrey A. Brown, who is with Enron, will describe how and  
12                  why the Commission should require Duquesne to unbundle additional competitive  
13                  services beyond simply the commodity, such as metering and billing. Mr. Gayle  
14                  Muench, who is employed in Enron's residential marketing efforts, will discuss  
15                  necessary consumer protections and rules so that all consumers including small users  
16                  can benefit from this transition.

17                  **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

18                  A. Yes. Thank you.

# Market Share of Utilities/Affiliates in Retail Access Programs



**(20) DISPUTE RESOLUTION**

Disputes regarding the application of this tariff between the Company and the ESP will be resolved by the filing of a complaint with the Commission in accordance with its dispute process except as otherwise provided in the Service Agreement.

**(21) STANDARDS OF CONDUCT**

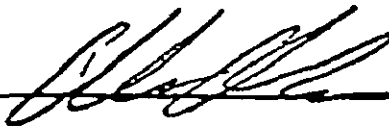
The following standards of conduct pertain to the Customer Choice Program and the Company's relationship to the ESPs participating in it. The standards are not intended to supersede the provisions of Commission Order 97-196, dated June 4, 1997.

**(a) Provision of Products and Services**

The following standards pertain to the Customer Choice Program and the Company's relationship to the ESPs participating in it. The standards are not intended to supersede the provisions of Commission Order 97-196, dated June 4, 1997.

- (i) The Company shall strictly enforce tariff provisions for which there is no discretion in the application of the provision. The Company shall apply tariff provisions in the same manner to the same or similarly situated ESPs if there is discretion in the application of the provision. The Company shall not, through a tariff provision or otherwise, give its affiliated ESP or customers of its affiliated ESP preference over non-affiliated ESPs or their customers in matters relating to any regulated services or products provided within the Company's service territory ("regulated services").
- (ii) All regulated services offered by the Company shall be available to all ESPs simultaneously (to the extent technically possible) and on a comparable basis. Any discount, rebate, or fee waiver for any

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regulated services offered by the Company shall be offered to all ESPs simultaneously and on a comparable basis.

(iii) The Company shall not sell or otherwise provide regulated services to its affiliated ESP without either posting the offering electronically on a well-known source or otherwise making a sufficient offering to the market for that regulated service.

(iv) The Company shall process all similar requests for regulated services in the same manner and within the same period of time.

(b) Tying

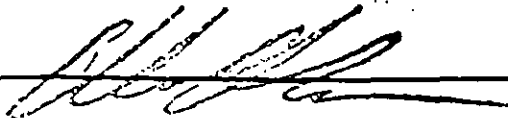
The Company shall not condition or tie the provision of any regulated service or rate agreement by the Company to the provision of any product or service in which an affiliated ESP is involved.

(c) Information

(i) The Company shall process all similar requests for information in the same manner and within the same period of time. The Company shall not provide information to an affiliated ESP without a request in cases where information is made available to non-affiliated ESPs only upon request. The Company shall not allow an affiliated ESP preferential access to any non-public information regarding the distribution system or End Use Consumers that is not made available to non-affiliated ESPs upon request, and shall instruct all of its employees not to provide affiliated ESPs or non-affiliated ESPs any preferential access to non-public information.

(ii) Employees of the Company are prohibited from sharing with any affiliated ESP or any non-affiliated ESP (a) any market information pertaining to End Use Consumers participating in the Customer Choice Program that was acquired from the affiliated ESP or from any non-affiliated ESP; or (b) any market information pertaining to End Use

FILED TARIFF



Consumers participating in the Customer Choice Program that was developed by the Company in the course of responding to requests for distribution service.

(iii) The Company shall not release any proprietary End Use Consumer information without the prior written or other approved authorization of the End Use Consumer.

(d) Promotion of Affiliate

The Company shall refrain from promoting any affiliated ESP. Neither the Company nor an affiliated ESP shall in any way represent that any advantage accrues to an End Use Consumer or others in the use of the Company's regulated services as a result of that End Use Consumer or others dealing with the affiliated ESP. The Company shall not engage in joint advertising or marketing programs with its affiliated ESP, nor shall the Company promote or market any product or service offered by its affiliated ESP. The Company shall maintain a current list of all ESPs. If an End Use Consumer requests information about ESPs, the Company shall provide a copy of the list with ESP names appearing in random sequence and not in alphabetical order, but the Company shall in no way promote its affiliated ESP.

(e) Shared Employees

Employees of the Company who have responsibility for operation of the distribution system, such as receiving requests for transmission or distribution services, operating the control area, or scheduling ESP deliveries, shall not be shared with an affiliate ESP or the Company's wholesale merchant function, and their offices shall be physically separated from the office(s) of the affiliate ESP. Any shared facilities shall be fully and transparently allocated between the two entities.

FILED TARIFF



(f) Books of Account

The Company and its affiliated ESP shall keep separate books of accounts and records.

(g) Dispute Resolution Procedure

The Company shall establish and file with the Commission a dispute resolution procedure to address complaints alleging violations of these Standards of Conduct. The procedure, at a minimum, shall designate a person to conduct an investigation of the complaint and communicate the results of the investigation to the claimant in writing within thirty (30) days after the complaint was received, including a description of any action taken and the complainant's right to file a complaint with the Commission if not satisfied with the results of the investigation. The Company shall maintain a log of all new, resolved, and pending complaints. The log shall be subject to annual review by the Commission and shall include, at a minimum, the written statement of the complaint and the resolution of the complaint or the reason why the complaint is still pending.

(h) Penalties

The Commission's penalty authority provided in the Oregon statutes shall apply to violations of these rules.

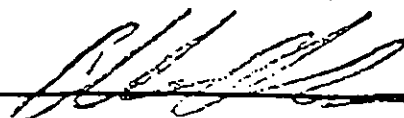
(i) Corporate Identification

The affiliate ESP shall not use the name, logo, service mark, trademark, or trade name of the Company.

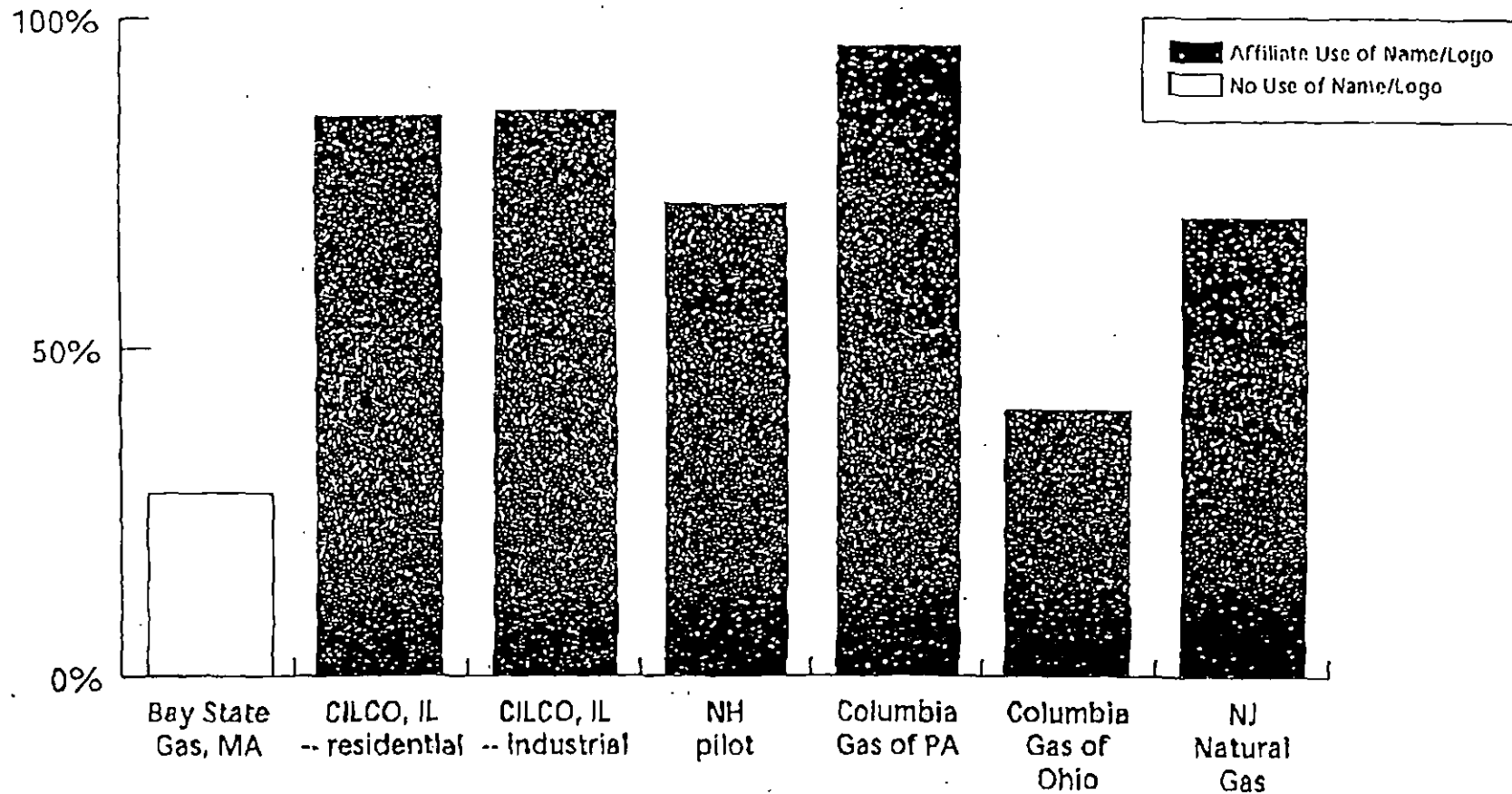
**(22) LIMITATION OF LIABILITY**

The Company's obligations with respect to the continuity and quality of Distribution Services, Billing Service, and Power Delivery Service shall be covered by, subject to, and limited by Rule C(2) of this tariff. The Company is neither bound by, nor will it enforce, contracts between ESPs and their End Use

FILED TARIFF



# Market Share of Affiliates in Retail Access Programs



Source: JPC Comments Exhibit G

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

SURREBUTTAL TESTIMONY OF

**JAMES D. STEFFES**

ON BEHALF OF  
ENRON POWER MARKETING, INC.

RECEIVED  
98 JAN -9 PM 3:46  
P.A.P.U.C.  
PROTHONOTARY'S OFFICE

DOCUMENT  
FOLDER  
DOCKET NO. R-00974104

RE: APPLICATION OF DUQUESNE LIGHT  
COMPANY FOR APPROVAL OF  
RESTRUCTURING PLAN

DECEMBER 11, 1997 **DOCKETED**  
JAN 15 1998

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2  
3 A. My name is James D. Steffes. My business address is 1400 Smith Street, Houston,  
4 Texas 77002.

5 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS**  
6 **PROCEEDING?**

7  
8 A. Yes. I submitted Enron Statement 1.0

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. The purpose of my testimony is to respond to Duquesne witnesses Hoffman and  
11 Allison who have submitted testimony rebutting the recommendations to the  
12 Commission made in my direct testimony or that of other Enron witnesses regarding  
13 one or more of the following issues: 1) unbundling of and competitive entry into  
14 revenue cycle services; 2) adoption of a strong Code of Conduct governing the  
15 relationship between Duquesne and its affiliates and divisions engaged in competitive  
16 activities; and 3) adoption of a pro forma distribution service tariff which recognizes  
17 an electric generation supplier's ("EGS") ability to act as agent for the end-use  
18 customer in purchasing and provisioning all of the end-use customer's electricity  
19 needs.

20 **Q. CAN YOU SUMMARIZE THE VIEWS OF THESE WITNESSES?**

21 A. Yes. These witnesses attempt to evade these important market structure issues facing  
22 the Commission in EDC restructuring proceedings by requesting the Commission to  
23 defer these issues to generic investigations or rulemaking dockets which either have

1 not been initiated to date or have been initiated but are in their very early stages.<sup>1</sup>

2 Overall, if these issues are deferred without at least having interim standards in effect,  
3 the Commission runs the risk of entering direct access without having reached critical  
4 decisions on market structure. Such a scenario would be completely chaotic because it  
5 would result in an environment without clear rules. Furthermore, the absence of  
6 critical Commission decisions at the outset of direct access will have a chilling effect  
7 on competition.

8 **Q. AREN'T ISSUES CONCERNING UNBUNDLING, CODE OF CONDUCT AND**  
9 **AGENCY POLICY DECISIONS WHICH SHOULD BE DECIDED ON A**  
10 **STATEWIDE BASIS?**

11  
12 **A.** Conceptually, yes. Enron does not oppose resolution of these issues generically on a  
13 statewide basis through rulemaking or investigative dockets. Furthermore, Enron has  
14 been one of the primary proponents of resolving common issues uniformly and  
15 consistently among EDC service territories. However, we are now almost at the close  
16 of 1997. Selection and marketing of customers will commence in mid-1998, and is  
17 only approximately six months away. It is critical to have these issues resolved — or  
18 at least to have interim rules in place — at the commencement of the direct access  
19 implementation process. Rulemakings or investigations which either have not yet been  
20 instituted or are in their early stages can not conceivably resolve these issues in the  
21 short time remaining. It is for this reason that the Commission should, in each EDC

---

<sup>1</sup> Recently, on November 21, 1997, the Commission entered a Proposed Rulemaking Order in Re: Advanced Meter Deployment for Electricity Providers, L-00970128. The Commission expects to issue other proposed rulemaking orders, including a competitive safeguards rulemaking, in the near future.

1 restructuring proceeding, act to establish sound rules governing market structure in the  
2 early stages of direct access. While — given the circumstances — these rules may be  
3 interim in nature, they must be established now or market development will be  
4 seriously impeded.

5 **Q. ISN'T SIX MONTHS ENOUGH TIME TO REACH A GENERIC RESOLUTION**  
6 **OF THESE ISSUES?**

7  
8 A. No. It is my understanding that generic investigations or rulemaking proceedings,  
9 particularly those which are likely to be controversial in nature, will likely require 12-  
10 18 months to complete. Such delay simply does not accommodate the need for  
11 resolution of these issues now or in the very near future. As explained in my direct  
12 testimony and in the testimony of other Enron witnesses, Enron has developed a record  
13 in this case that supports resolution of these issues in a manner which enables  
14 meaningful competitive development in the early stages of direct access for Duquesne  
15 prior to the time generic dockets can be completed.

16 **Q. EARLIER, YOU STATED THAT THE ABSENCE OF THESE DECISIONS**  
17 **WOULD SERIOUSLY IMPEDE COMPETITIVE DEVELOPMENT. PLEASE**  
18 **EXPLAIN.**

19  
20 A. Each of these issues is critical to meaningful competitive development. Furthermore,  
21 their significance is heightened even further in the early stages of direct access.

22 As I have explained in my direct testimony, the unbundling of and competitive  
23 entry into revenue cycle services will allow suppliers to add value to generation  
24 services which fulfills consumer needs. This added value, in addition to generation  
25 savings, is particularly important in the early stages of direct access when EDCs are  
26 seeking a disproportionately high level of stranded cost recovery. Furthermore,

1 enabling suppliers to add value will enhance the level of competitive entry necessary  
2 to bring real benefits to consumers.

3 A strong code of conduct is equally critical in the early stages of direct access.  
4 If EDCs are permitted to leverage the advantages inherited from their historic  
5 monopoly status and pass through or transfer those advantages to their affiliates, no  
6 unaffiliated supplier will be able to attract customers even if that supplier is offering  
7 lower priced or superior service. Presuming the competitive safeguards rulemaking is  
8 not completed by mid 1998, Duquesne's proposal would result in no Code of Conduct  
9 during the initial customer selection and marketing process. Such a result is  
10 potentially disastrous and must be avoided at all costs.

11 Finally, Enron's experience in other industries, like the gas industry, leads me  
12 to conclude that the vast majority of customers will want to select one entity to fulfill  
13 all of their electricity needs. Enabling suppliers to act as agents for customers will  
14 allow suppliers to offer a "soup to nuts" service which not only accommodates the  
15 customer but brings the customer the greatest value. Again, this issue is no more than  
16 six months away from necessary implementation and must be resolved now, at least on  
17 an interim basis, or customers will be adversely impacted and market development will  
18 be impeded.

19 **Q. WHY ARE THESE ISSUES SO CRITICAL FOR AN INFANT COMPETITIVE**  
20 **MARKET?**

21  
22 A. Only if the market is structured to enable competitive entry in a manner which allows  
23 competition to grow and flourish will the Customer Choice Act's objectives be met. It  
24 is in the earliest stages of competition that market structure issues are of the most

1 importance. Competitive entry into an industry which has been traditionally  
2 monopolized is a very fragile process. The ability to reach crucial market structure  
3 decisions prior to the initial stages of direct access in mid 1998 is critical to achieving  
4 the Act's goals.

5 **Q. IS DUQUESNE'S RELIANCE ON THE PILOT CODE OF CONDUCT**  
6 **APPROPRIATE?**

7  
8 A. Absolutely not. Duquesne witness Hoffman believes that the PEA Code of Conduct,  
9 which is presently being utilized in the Pilot Programs, should be used, at least until  
10 statewide standards are codified. Mr. Hoffman's reliance on the Pilot Program Code  
11 of Conduct is outdated and misplaced. Mr. Hoffman's reliance is outdated because the  
12 Competitive Safeguards Working Group Report identifies code of conduct provisions  
13 which, for the most part, do not even resemble the PEA code of conduct endorsed by  
14 Mr. Hoffman. While Enron believes the Working Group Report remains inadequate  
15 and requires further development, it departs in many substantive areas from the  
16 outdated PEA code of conduct.<sup>2</sup>

17 Furthermore, reliance on either the PEA code of conduct, the Working Group  
18 code of conduct or a proposed rulemaking code of conduct is misplaced. Working  
19 groups and proposed rulemaking proposals should be not used as interim standards. I  
20 have been advised that proposed rulemaking orders can be given no special weight  
21 until regulations are finalized and that interim standards must be based on an  
22 evidentiary record. I believe the Commission has developed a record in this

---

<sup>2</sup> As indicated previously, Enron also expects the Commission to initiate a competitive safeguards rulemaking in the near future.

1 proceeding which will allow it to make an appropriate determination and establish a  
2 strong code of conduct in Duquesne's service territory.

3 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

4 **A. Yes.**

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

**PAUL D. REISING**

ON BEHALF OF  
ENRON POWER MARKETING INC.

DOCKET NO. R-00974104  
RE: DUQUESNE LIGHT COMPANY  
RESTRUCTURING PLAN

NOVEMBER 7, 1997

1 I. INTRODUCTION

2 Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

3  
4 A. Paul D. Reising, 550 Congressional Boulevard, Suite 290, Carmel, Indiana 46032.

5 Q. WHAT IS YOUR OCCUPATION?

6  
7 A. I am a principal of the firm of R. W. Beck, Inc.

8 Q. PLEASE DESCRIBE R. W. BECK, INC.

9  
10 A. R. W. Beck, Inc. is a corporation of engineers and consultants founded in 1942  
11 for the purpose of rendering professional engineering and consulting services in  
12 planning, financing, operating and designing facilities for utilities and energy  
13 users. The Firm employs approximately 500 professional and support personnel to  
14 provide these services. Our general office is in Seattle, Washington, and we have  
15 offices in ten other cities including Indianapolis.

16 Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND  
17 YOUR EXPERIENCE IN THE ELECTRIC UTILITY INDUSTRY.

18  
19 A. I have over 30 years experience in the electric utility industry with a broad range  
20 of responsibilities in such areas as planning, economic analysis, rate analysis and  
21 contract negotiations. Exhibit 2, PDR-1 is a brief summary of my educational  
22 background and my experience in the electric utility industry.

23 Q. ON WHOSE BEHALF DO YOU APPEAR IN THIS PROCEEDING?

24  
25 A. I am appearing on behalf of Enron Power Marketing Inc. ("EPMI").

26 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

27  
28 A. In my testimony, I will be covering issues related to the appropriate unbundling of  
29 services and rates of Duquesne Light Company ("Duquesne"). I will offer for the  
30 Commission's consideration a pro forma Distribution Services Tariff and will

1 present an alternative approach to design of unbundled rates applicable to that  
2 tariff.

3 **II. CONCLUSIONS AND RECOMMENDATIONS**

4 **Q. WHAT CONCLUSIONS HAVE YOU REACHED BASED ON THE**  
5 **ANALYSES YOU HAVE COMPLETED IN THIS PROCEEDING?**

6  
7 A. Based on my review of the Company's filing and responses to interrogatories, I  
8 have reached the following conclusions:

9 1. The Company's functional assignment of costs does not provide a sound  
10 basis for setting unbundled rates.

11 a. The Company has included in its distribution functional revenue  
12 requirements costs that have nothing to do with the actual delivery of  
13 electric power and energy to the ultimate customer. These costs must be  
14 removed from distribution services charges.

15 b. Duquesne inappropriately includes in its distribution charges the  
16 cost of losses computed on the basis of its embedded production costs.  
17 End users should be permitted to arrange for supply of all electric power  
18 and energy requirements, including losses across the Duquesne T&D  
19 system. The production-related cost of losses must be removed from  
20 unbundled distribution charges.

21 c. Charges for distribution services should be subdivided into: (1)  
22 "wires" services, which I will refer to in my testimony and exhibits as  
23 "Energy Delivery Services," and (2) non-wire services, which are referred  
24 to in some jurisdictions as "Revenue Cycle Services".

25 d. Duquesne's cost of service and rate design studies identify costs  
26 associated with providing FERC-regulated, transmission-related ancillary

1 services. However, Duquesne bundles charges for ancillary services into  
2 its proposed transmission charge. Ancillary services should be unbundled  
3 from base rates and separately stated in Duquesne's restructured rates.

4 e. I have completed an independent functional cost analysis for  
5 Energy Delivery Services and Revenue Cycle Services which corrects the  
6 deficiencies of the Duquesne functional cost analysis. A summary of that  
7 analysis is presented in Exhibit 2, PDR-3. That analysis provides for the  
8 proper separation of functions that may be provided competitively by  
9 Electric Suppliers or other vendors, rather than assigning such functional  
10 costs, by default, to the monopoly "distribution" function as proposed by  
11 Duquesne, and provides a reasonable basis upon which to design rates for  
12 unbundled services.

13 2. Rates should be separately computed and stated for the following  
14 unbundled services:

- 15 i) Transmission Service
- 16 ii) Ancillary Services
- 17 iii) Energy Delivery Services
- 18 iv) Revenue Cycle Services

19 3. A Distribution Services Tariff is needed to establish the rules and delivery  
20 service rates applicable to energy service providers who will be responsible for  
21 making all necessary arrangements for individual or aggregated end-user  
22 customers. It is of fundamental importance that there be standardized and  
23 consistent distribution service tariffs throughout a state and between states to allow  
24 full competition. Otherwise, unjustified differences in terms and conditions of  
25 service of various existing electric utilities will not provide equal treatment and

1 the ultimate customers will be denied the benefits of full competition. There  
2 should be a full and complete dialogue by all interested parties on the Distribution  
3 Services tariff. That dialogue should begin now. Exhibit 2, PDR-6 is submitted  
4 to facilitate that process.

5 4. Rates for services under the Distribution Service Tariff should be designed  
6 so as to reflect the characteristics of the customer's service rather than historical  
7 identification by traditional "class" of service. Exhibit 2, PDR-7, provides a  
8 sample rate design calculation for Energy Delivery Services. That rate design  
9 segregates customer and demand-related revenue requirements by customer voltage  
10 level, with separately defined charges for secondary, primary and transmission  
11 voltage service. Rates for Revenue Cycle Services are also developed in Exhibit  
12 2, PDR-7.

13 **Q. WHAT ARE YOUR SPECIFIC RECOMMENDATIONS TO THE**  
14 **COMMISSION IN THIS PROCEEDING?**

15  
16 **A.** My recommendations include the following:

17 1. The Commission should require Duquesne's compliance filing in this  
18 proceeding to correct the deficiencies in its functional cost analysis in a manner  
19 consistent with the methodology used in preparing Exhibit 2, PDR-3.

20 2. In conjunction with the previous recommendation, the Commission should  
21 adopt the pro forma Distribution Services Tariff presented in Exhibit 2, PDR-6,  
22 after giving due consideration to comments received from interested parties in this  
23 proceeding.

24 3. The Distribution Services Tariff should contain schedules that provide the  
25 terms and compensation provisions applicable to Energy Delivery Services and  
26 Revenue Cycle Services. The rates for such services should be voltage

1 differentiated and computed in a manner consistent with the rate development  
2 presented in the relevant portions of Exhibit 2, PDR-7.

3 **III. UNBUNDLING SERVICES AND RATES**

4 **Q. REGARDING THE ISSUE OF SERVICE AND RATE UNBUNDLING,**  
5 **WHAT GUIDELINES DID THE GENERAL ASSEMBLY PROVIDE TO**  
6 **THE PUBLIC UTILITY COMMISSION AND TO UTILITIES?**

7  
8 A. In the Electricity Generation Customer Choice and Competition Act (the  
9 "Competition Act"), the General Assembly established the following requirements  
10 related to unbundling of services and rates:

11 The Commission shall require the unbundling of electric utility  
12 services, tariffs and customer bills to separate the charges for  
13 generation, transmission and distribution. The Commission may  
14 require the unbundling of other services. (Section 2804 (3))

15  
16 The Commission shall require that restructuring of the electric  
17 utility industry be implemented in a manner that does not  
18 unreasonably discriminate against one customer class to the benefit  
19 of another. (Section 2804 (7))

20  
21 A restructuring plan under subsection (D) must include, consistent  
22 with the determinations of the commission, unbundled prices or  
23 rates for generation, jurisdictional transmission, distribution and  
24 other services; ..." (Section 2806(E))

25  
26 Customer bills shall contain unbundled charges sufficient to enable  
27 the customer to determine the basis for those charges. (Section  
28 2807 (c) (1))

29  
30 **Q. HAS THE COMMISSION PROVIDED ANY FURTHER GUIDANCE ON**  
31 **THIS SUBJECT?**

32  
33 A. Yes. In its Order in Docket No. M-00960890, Folder 0003 at 5, the Commission  
34 noted that:

35 Utilities filing restructuring plans must propose tariffs which  
36 remove and reallocate non-jurisdictional transmission costs which  
37 will be recovered through federally approved tariffs, determine  
38 jurisdictional cost responsibility, allocate it properly between  
39 regulated local distribution tariffs and generation tariffs.

1 At 22: The major ratemaking task in these proceedings is not to  
2 determine the overall level of revenues, but how revenue  
3 responsibility is to be allocated to generation, transmission,  
4 distribution and common costs of service, and how those costs will  
5 be borne by existing and new customers and customer classes.  
6

7 **Q. WHAT TESTIMONY DOES THE COMPANY PRESENT ON THE ISSUE**  
8 **OF SERVICE AND RATE UNBUNDLING?**  
9

10 A. Company witness Lahtinen presented the Company's functional cost of service  
11 analysis in his Exhibit JAL-1. The results of Mr. Lahtinen's cost of service  
12 studies were used to develop the unbundled rates and charges proposed by the  
13 Company in this proceeding. Mr. Lahtinen also presented the Company's  
14 proposed unbundled rate design.

15 **Q. DO YOU BELIEVE THAT MR. LAHTINEN'S FUNCTIONAL COST OF**  
16 **SERVICE STUDY IS AN APPROPRIATE BASIS FOR DEVELOPING**  
17 **UNBUNDLED RATES AND CHARGES IN THIS PROCEEDING?**  
18

19 A. No. I believe that additional steps are required in order to provide a sound basis  
20 for unbundling the rates and charges in this proceeding.

21 **Q. PLEASE EXPLAIN.**  
22

23 A. The Company's defined functions and the manner in which costs are assigned to  
24 those functions, in effect, cause the "distribution" category identified by Duquesne  
25 to be a catchall for anything not otherwise classified as "production" or  
26 "transmission." As a result, Duquesne has included in the "distribution" category  
27 many costs that have nothing to do with the actual delivery of electric power and  
28 energy to the ultimate customer. These deficiencies mean that Duquesne's  
29 proposed functional assignment of costs and resulting rate design substantially  
30 overstate the assignment of costs to the energy delivery service function and  
31 understates the costs that should be assigned to the production function.

1 Q. DO YOU HAVE ANY COMMENTS REGARDING THE  
2 FUNCTIONALIZATION OF COMMON COSTS?

3  
4 A. Yes. Duquesne has utilized functional labor ratios to assign the bulk of its  
5 administrative and general expenses and general plant. I view the use of labor  
6 ratios for assignment of other A&G expenses and general plant investment as a  
7 proxy method. I believe that the Commission should require that a thorough  
8 analysis be conducted to determine which common costs will continue to be  
9 required to support Duquesne's regulated transmission and distribution business,  
10 and which of those current common costs will be eliminated or transferred to  
11 Duquesne's affiliated deregulated generation businesses. Such analysis should be  
12 taken into consideration in the determination of charges for distribution-related  
13 services prior to the end of the rate cap period.

14 Q. PLEASE DESCRIBE SPECIFICALLY WHICH COST ELEMENTS  
15 DUQUESNE INCLUDED IN ITS DISTRIBUTION CHARGES THAT HAVE  
16 NOTHING TO DO WITH DISTRIBUTION SERVICES?

17  
18 A. Duquesne's cost of service study reflects a total revenue requirement for the  
19 combined Distribution and Customer Services function of \$253.7 million,  
20 exclusive of demand and energy losses (Exhibit JAL-1). Duquesne's cost of  
21 service study inappropriately assigns several cost of service elements which must  
22 be removed in order to arrive at an appropriate basis for setting unbundled rates  
23 for distribution related services. These cost elements include:

- 24 1. Sales Expenses,  
25 2. Customer Information and Assistance Expenses, and  
26 3. the portion of Uncollectible Accounts Expense which should be  
27 assigned and recovered from Duquesne's generation business.

1 Q. **HOW DID THE COMPANY TREAT SALES EXPENSES IN ITS COST OF**  
2 **SERVICE STUDY AND WHY DO YOU PROPOSE TO REMOVE THEM**  
3 **FROM DISTRIBUTION RELATED SERVICE CHARGES?**

4  
5 A. Duquesne included 100% of its test period direct sales expense plus allocated  
6 overhead expenses in its Customer Services functional costs. These costs were  
7 subsequently rolled into the total revenue requirements for the Distribution  
8 functional category.

9 Sales expenses are incurred to promote the sale of additional energy to  
10 retail customers. They are clearly an energy supply marketing function, and  
11 should not be included in charges for distribution services. Duquesne's energy  
12 supply affiliates will gain an unfair advantage if Duquesne continues to carry out  
13 marketing functions for its power supply affiliates or uses part of the proceeds  
14 from its wires charges to pay the marketing costs of its energy supply affiliates.  
15 If Duquesne is able to foist its energy supply marketing costs onto its T&D  
16 customers, its affiliates will be able to artificially price their energy supply  
17 services without concern for their true costs of doing business, and their  
18 competitors will effectively subsidize Duquesne's affiliates.

19 Q. **WHY ARE YOU PROPOSING TO REMOVE CUSTOMER**  
20 **INFORMATION AND ASSISTANCE EXPENSES FROM DISTRIBUTION**  
21 **FUNCTIONAL COSTS AND SERVICE CHARGES?**

22  
23 A. My reading of the accounting instructions for the Uniform System of Accounts for  
24 Account 908 -- customer assistance expenses, and Account 909 -- informational  
25 and instructional advertising expenses, indicates that the activities covered under  
26 this functional category include many expense elements that are in reality  
27 marketing and promotional costs that should be assigned to Duquesne's generation  
28 business, not to its distribution business. Examples of such activities and related

1 expenses include advice regarding the most efficient use of electric equipment,  
2 demonstrations of the economical and efficient use of electric service, and  
3 engineering and technical advice to promote efficient and economical use of a  
4 utility's service. None of the expenses associated with these activities are related  
5 to rendering energy delivery or revenue cycle services and should not be passed  
6 on to customers taking unbundled services. It is possible that a portion of an  
7 EDC's expenses for customer information and assistance might apply to the  
8 energy delivery system: An example of such expense might include advertising  
9 and other instructional activities designed to educate energy delivery service  
10 customers regarding electric line safety matters. However, I have no information  
11 available to me to indicate what, if any, portion of Duquesne's customer assistance  
12 and information expense are related to distribution system safety matters. If  
13 Duquesne can demonstrate what portion of its customer information and assistance  
14 expense is directly attributable to energy delivery safety issues, my functional cost  
15 of service analysis easily can be amended to accommodate an appropriate  
16 assignment of such costs to energy delivery service charges.

17 **Q. THE NEXT POINT YOU RAISED HAD TO DO WITH UNCOLLECTIBLE**  
18 **ACCOUNTS. PLEASE EXPLAIN THE ADJUSTMENT YOU ARE**  
19 **RECOMMENDING.**

20  
21 A. Duquesne's functional cost study and the proposed distribution service charges are  
22 based on revenue requirements which include 100% of Duquesne's test period  
23 uncollectible accounts expense. In Exhibit JAL-1, Duquesne has included \$32.5  
24 million of customer accounts expense in its total Company revenue requirements.  
25 This amount includes \$11.0 million of uncollectible accounts expense. I strongly  
26 disagree with this approach. Instead, to the extent that Duquesne continues to be

1 responsible for billing end users, Duquesne's uncollectible accounts expense  
2 should be allocated between production, transmission and distribution functional  
3 revenue requirements based on the proportion the revenue requirement for each  
4 function bears to the total company revenue requirements. This approach will  
5 result in assigning a proportionate amount of uncollectible accounts expense to  
6 each function, and will eliminate the subsidy which Duquesne otherwise proposes  
7 to create. Duquesne, as the EDC and billing agent should be compensated for the  
8 production portion of any allowance for uncollectible accounts by its energy  
9 supply affiliates, not by its wires service customers.

10 I would point out that to the extent that energy suppliers or third parties  
11 other than Duquesne as EDC provide billing services and take credit risk, then  
12 there should not be any allowance for Uncollectible Accounts Expense rolled into  
13 Duquesne's charges for distribution services.

14 **Q. ASSUMING THAT THE COMMISSION ADOPTS YOUR**  
15 **RECOMMENDATIONS REGARDING THE FUNCTIONALIZATION OF**  
16 **SALES, CUSTOMER INFORMATION AND UNCOLLECTIBLE**  
17 **ACCOUNTS EXPENSES, COSTS AND CHARGES FOR DISTRIBUTION-**  
18 **RELATED SERVICES WILL BE REDUCED. WOULDN'T THE**  
19 **REDUCTION IN DISTRIBUTION COSTS AND CHARGES RESULT IN AN**  
20 **INCREASE IN STRANDED COSTS AND THE COMPETITIVE**  
21 **TRANSITION CHARGE?**

22  
23 **A.** Absolutely not. The costs I am recommending be removed from distribution-  
24 related services are costs that are incurred to support Duquesne's generation  
25 business. If Duquesne is permitted to treat these costs as stranded costs and  
26 recover them through the CTC, end users who choose to purchase their energy  
27 requirements from suppliers other than Duquesne will be subsidizing those who  
28 elect to purchase from Duquesne. This is because Duquesne and its affiliates will  
29 be able to price their energy supply services artificially, without concern for their

1 true costs of doing business. This is not the case for an alternative supplier who  
2 must compete on a price basis, but can do so only to the extent that its costs of  
3 doing business are covered, including its direct and overhead costs of generation  
4 operations and wholesale purchases. In order to create a fair competitive market  
5 these costs must be assigned to the "generation" portion of the rates of Duquesne.  
6 There is no basis for suggesting that these costs are "stranded" and to characterize  
7 them as such, and to simply add them to Duquesne's stranded cost allowance  
8 satisfies no principle of cost allocation or fairness of which I am aware.

9 **Q. IN THE SUMMARY PORTION OF YOUR TESTIMONY YOU**  
10 **INDICATED THAT DUQUESNE INAPPROPRIATELY INCLUDED THE**  
11 **EMBEDDED PRODUCTION COSTS OF TRANSMISSION AND**  
12 **DISTRIBUTION SYSTEM LOSSES IN ITS PROPOSED CHARGES FOR**  
13 **DISTRIBUTION SERVICES. PLEASE EXPLAIN YOUR CONCERN WITH**  
14 **DUQUESNE'S PROPOSAL.**

15  
16 **A.** In Exhibit JAL-1C, Page 3, the Company has included the production related costs  
17 of losses for delivery of power and energy across the Duquesne transmission and  
18 distribution system in its distribution-related revenue requirements. In doing so,  
19 the costs for such losses are based on Duquesne's embedded generation costs.  
20 Duquesne's proposal precludes end users from securing all of their power and  
21 energy requirements (inclusive of system losses) from alternative suppliers.  
22 Duquesne's proposal increases its distribution charges by an average of 12%.  
23 These charges for embedded production costs must be removed from all charges  
24 for transmission and distribution services. My cost of service and rate design  
25 studies, which I will subsequently describe, are appropriately computed without  
26 production-related losses. Of course, transmission and distribution functional costs  
27 included in my exhibits include the transmission and distribution capacity costs  
28 associated with T&D system losses.

1 Q. EARLIER YOU STATED THAT WEST PENN'S CHARGES FOR  
2 DISTRIBUTION SERVICES SHOULD BE SUBDIVIDED INTO CHARGES  
3 FOR (1) ENERGY DELIVERY SERVICES AND (2) REVENUE CYCLE  
4 SERVICES. WHICH COST ELEMENTS WOULD YOU INCLUDE IN  
5 COMPUTING CHARGES FOR ENERGY DELIVERY SERVICES?  
6

7 A. I would include all operating expenses and rate base elements associated with the  
8 facilities required for delivery of power and energy from the transmission grid to  
9 the point of measurement of service or in the case of service to street lighting  
10 facilities, the point at which the street light "appliance" is electrically connected to  
11 the distribution system. Facilities and related costs which fall in this category as  
12 applied to West Penn's distribution system include transmission and primary  
13 voltage substations and lines, line transformers, secondary voltage lines and  
14 service drops, although future refinement might result in excluding secondary  
15 voltage lines and service drops from regulated Energy Delivery Services, as these  
16 are potentially competitive services. I would also include an appropriate  
17 allocation of support costs such as administrative and general expenses and  
18 carrying costs for general plant.

19 Q. WOULD YOUR DEFINITION OF ENERGY DELIVERY SERVICE  
20 FACILITIES INCLUDE METERS AND STREET LIGHTING?  
21

22 A. No. While utility plant and expense accounting has traditionally included meter-  
23 related plant and expenses and lighting-related plant and expenses in "distribution"  
24 plant and expense accounts, they have nothing to do with the actual delivery of  
25 energy to the customer. As pointed out by EPMI witnesses Muench and Brown,  
26 the provision of meters and meter reading is not a natural monopoly service.  
27 Both from an operational and a functional standpoint, this service can be separated  
28 from the actual delivery of electricity using Duquesne's distribution system.  
29 Meters are required to measure the amount of power and energy actually delivered

1 to the customer. Such measurement is necessary for purposes of gathering billing,  
2 system operations and system planning data applicable to all three primary  
3 functions: production, transmission and energy delivery.

4 Street light facilities, of course, are an end-use appliance and obviously  
5 have nothing to do with serving an energy delivery function. The costs of such  
6 street light facilities, including allocated common costs, should be recovered  
7 separately through unbundled charges in existing class-based rates or through  
8 separate service schedules in connection with the Distribution Services Tariff  
9 which I will subsequently describe. Lighting customers would also be charged  
10 appropriate amounts for transmission and Energy Delivery Service necessary in  
11 order to convey power and energy for energizing the street light appliance. Other  
12 witnesses on behalf of EPMI will provide further support for unbundling of  
13 Revenue Cycle Services.

14 **Q. IN THE INTRODUCTION TO YOUR TESTIMONY YOU RAISED AN**  
15 **ISSUE REGARDING ANCILLARY SERVICE COSTS. WHAT ARE**  
16 **ANCILLARY SERVICES?**

17  
18 **A.** Generating plant facilities that are connected to a transmission system support the  
19 transmission of power, and there is a cost associated with the generating plants  
20 providing this transmission support function. In the past, when the majority of  
21 electric power was generated and transmitted by the same utility, all of the costs  
22 of providing the power were bundled together and billed as a single charge.  
23 There was no need to account separately for the cost of using generating facilities  
24 to support the transmission of power, since all of the power sales revenues went to  
25 the same party. However, when the generation and transmission of power become  
26 two separate functions, performed by two or more different parties, the costs

1 associated with the portion of generating plant that supports transmission service  
2 needs to be properly recognized and charged, and the revenues credited to the  
3 proper function or party.

4 Ancillary Services are the generation support services that are needed along  
5 with transmission service to maintain reliability within and among the "Control  
6 Areas" affected by the transmission service. A Control Area is a defined system  
7 of generation, transmission and other electric facilities and loads in which the  
8 Control Area operator is responsible for ensuring that loads and interchange  
9 transactions are served in a reliable manner.

10 **Q. WHAT SPECIFIC SERVICES DO THESE ANCILLARY SERVICES**  
11 **ENTAIL?**

12  
13 A. The Federal Energy Regulatory Commission ("FERC") in its Orders 888 and 888-  
14 A and the appended pro-forma Open Access Transmission Tariff define six  
15 ancillary services.

16 The Transmission Provider is required to provide (or offer to arrange for),  
17 and the Transmission Customer is required to purchase, two Ancillary Services:  
18 (1) Scheduling, System Control and Dispatch, and (2) Reactive Supply and  
19 Voltage Control from Generation Sources.

20 The Transmission Provider is required to offer to provide (or offer to  
21 arrange for) the four other Ancillary Services only to the Transmission Customer  
22 serving load within the Transmission Provider's Control Area. These include: (1)  
23 Regulation and Frequency Response, (2) Energy Imbalance, (3) Operating Reserve  
24 - Spinning, and (4) Operating Reserve - Supplemental.

1 I provide a definition and description of each of the six ancillary services  
2 in Exhibit 2, PDR-2.

3 **Q. YOU STATED THAT DUQUESNE FAILED TO SEPARATELY IDENTIFY**  
4 **CHARGES FOR ANCILLARY SERVICES. WHY IS THAT A PROBLEM?**

5  
6 A. As I just described, certain of the ancillary services must be provided by the  
7 Transmission Provider, while the remaining ancillary services can be secured from  
8 other sources or vendors. In my opinion, ancillary services should be unbundled  
9 from base rates for at least the following reasons. First, to the extent that  
10 customers have the ability to secure ancillary services from other sources, such  
11 customers will pay twice for ancillary services (once in base rates and a second  
12 time in the costs they directly incur) unless charges for those services are  
13 separately identified and billed. Second, stating the price for ancillary services  
14 will permit the customer to analyze its options for meeting ancillary service  
15 requirements. Third, separately identifying charges for ancillary services would  
16 permit the rates for those services to be updated as the Allegheny Power rates for  
17 ancillary services change. The concept I have in mind is consistent with the  
18 Commission's Preliminary Order and Opinion related to Duquesne's Retail Access  
19 Pilot Program. In that order, the Commission stated that "if Duquesne provides  
20 'retail' ancillary service, and charges for these services, it shall file the rates with  
21 the Commission as retail tariffed rates and include such supporting data as  
22 necessary to demonstrate that these costs are not already recovered in base rates."  
23 Petition of Duquesne Light Company for Approval of Retail Access Pilot  
24 Program, Docket No. P-00971175, Preliminary Order and Opinion issued May 8,  
25 1997 at 19.

1 **IV. FUNCTIONAL COST OF SERVICE**

2 **Q. HAVE YOU PREPARED AN ALTERNATIVE FUNCTIONAL COST OF**  
3 **SERVICE?**

4  
5 A. Yes. I have prepared a functional cost of service study, summarized in Exhibit 2,  
6 PDR-3, which corrects the deficiencies in the Company's functional assignment of  
7 costs.

8 **Q. HOW DO THE REVENUE REQUIREMENTS USED IN YOUR ANALYSIS**  
9 **COMPARE TO THOSE IN MR. LAHTINEN'S EXHIBIT JAL-1?**

10  
11 A. For purposes of my functional cost of service study, I have relied entirely on the  
12 line-by-line elements of revenue requirements used in Mr. Lahtinen's 1996 test  
13 year cost of service study, except that I have computed the functional revenue  
14 requirements on the basis of the actual rate of return earned during 1996 rather  
15 than the target return. That does not mean that I am necessarily endorsing all  
16 other elements of the Company's total jurisdictional revenue requirements. My  
17 focus in this proceeding is on functional cost assignment and rate unbundling  
18 rather than on total company revenue requirements issues.

19 **Q. WHAT ABOUT ALLOCATION FACTORS? HAVE YOU MADE ANY**  
20 **CHANGES TO THE VALUES USED BY MR. LAHTINEN?**

21  
22 A. No, I have adopted the same test period class allocation and billing unit data as  
23 used by Mr. Lahtinen in his exhibits and supporting workpapers.

24 **Q. COULD YOU PLEASE PROVIDE AN OVERVIEW OF YOUR**  
25 **FUNCTIONAL COST STUDY?**

26  
27 A. My analysis of functional costs which forms the basis for my recommendations on  
28 unbundled rate design consisted of four principal steps. First, I replicated the

1 Company's functional cost of service based on the Company's functional  
2 definitions:

3 Production Energy

4 Production Demand

5 Transmission

6 Distribution-Demand Related

7 Distribution-Customer

8 Customer Services

9 A summary of my functional cost of service is provided in Exhibit 2,  
10 PDR-3.

11 In the next step, summarized on the second page of my exhibit, the  
12 total amount shown in the functional cost of service for distribution-demand  
13 related costs were further divided into cost categories to permit identification of  
14 costs by voltage level (transmission, subtransmission, primary and secondary). As  
15 shown on the third page of Exhibit 2, PDR-3, distribution customer-related costs  
16 were divided into cost categories associated with primary and secondary voltage  
17 delivery, service, lighting and metering. These cost breakdowns, other than  
18 lighting and metering, are applied in subsequent analysis of unbundled rates for  
19 Energy Delivery Service.

20 In the final step, shown on the fourth page of my exhibit, the customer  
21 services category was further subdivided in order to identify functional costs  
22 associated with Revenue Cycle Services (meter reading and billing and  
23 collections). Metering costs derived from distribution customer-related revenue  
requirements will also be included in Revenue Cycle Services.

1

2 **Q. ARE THERE ANY STRUCTURAL DIFFERENCES BETWEEN THE COST**  
3 **OF SERVICE STUDY YOU CONDUCTED AND THAT PRESENTED IN**  
4 **MR. LAHTINEN'S EXHIBITS?**

5

6 A. Yes. Mr. Lahtinen's cost of service exhibits first allocate classified costs by  
7 existing customer service class. He then aggregates these costs by function to  
8 arrive at functional revenue requirements for total company and for each rate  
9 class. My approach, on the other hand, begins by functionally allocating each of  
10 the elements in the Company's revenue requirements. This approach permits  
11 revenue requirements to be segregated into functional categories at a level of  
12 detail not readily accomplished using Mr. Lahtinen's model, as is needed, for  
13 example, to separate costs associated with regulated, wires services and  
14 competitive, non-wires services. It also provides a great deal of flexibility to  
15 consider alternative rate design approaches, such as the computation of voltage-  
16 differentiated (rather than class-differentiated) charges for energy delivery  
17 services. Once the functional details are developed, the results can be used to  
18 allocate functionalized costs by rate class for purposes of designing class-based  
19 rates.

20 **Q. HOW DO YOUR FUNCTIONAL COSTS COMPARE TO THOSE**  
21 **PROPOSED BY THE COMPANY IN MR. LAHTINEN'S EXHIBITS?**

22

23 A. The following table provides a comparison of the functional cost breakdown I  
24 developed in Exhibit 2, PDR-3 with Mr. Lahtinen's functional assignment of  
25 costs:

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32

Functional Revenue Requirements -- \$000		
Total Retail		
Functional Description	EPMI Analysis	Functional
	Exhibit 2	Assignment of Costs
	PDR-3	Exhibit JAL-1
	\$Million	\$Million
Production Demand-Related	451.0	666.9
Production Energy-Related	335.9	182.3
Transmission-Related <sup>1</sup>	35.1	31.7
Distribution-Related Plant and Expense		
Energy Delivery Service	174.6	
Revenue Cycle -- Meters	7.3	
Lighting Service	5.6	
Subtotal	187.5	
Customer Accounts, Information		
Revenue Cycle:		
Meter Reading		
Billing	22.4	
Other Services	0.0	
Subtotal	22.4	
Total "Distribution" <sup>#2</sup>	209.9	253.7
Total All Functions	1,031.9	1,134.6

33  
34  
35  
36  
37  
38  
39  
40

**Q. WHY IS YOUR RECOMMENDED APPROACH SUPERIOR TO THE COMPANY'S FUNCTIONAL BREAKDOWN?**

A. In my opinion, the functional cost study underlying Exhibit 2, PDR-3 provides for the proper separation of functions that may be provided competitively by Electric Suppliers or other vendors, rather than assigning such functional costs, by default, to the monopoly distribution function as proposed by Duquesne. I believe they provide a reasonable basis upon which to design rates for unbundled services.

<sup>1</sup> Excluding ancillary services.

<sup>2</sup> Excluding losses.

1 Accordingly, I recommend that the Commission require Duquesne to submit a  
2 compliance filing in this proceeding which corrects the deficiencies I have  
3 described, using the methodology used in preparing Exhibit 2, PDR-3.

4 **V. RATE DESIGN FOR CLASS-BASED RATES**

5 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

6  
7 A. The purpose of this section of my testimony will be to present my  
8 recommendations for designing appropriate unbundled rates to be set forth in  
9 Duquesne's rate schedules, in the event that the Commission orders continued use  
10 of class-based rates. As I will subsequently describe, the unbundled, class-based  
11 rates I am recommending reflect adjustments to remove costs not properly  
12 attributable to distribution services and to provide a further unbundling of charges  
13 between "wires" and "non-wire" services. In a separate section of my testimony, I  
14 will offer an alternative rate design to be used in conjunction with a distribution  
15 services tariff.

16 **Q. WHAT RATE DESIGN APPROACH WOULD YOU RECOMMEND BE**  
17 **ADOPTED IN THIS PROCEEDING?**

18  
19 A. There are several elements to my recommendations for the design of appropriately  
20 unbundled services and rates in this proceeding. First, rates should be separately  
21 computed and stated for the following unbundled services:

- 22 1. Transmission Service
- 23 2. Ancillary Services
- 24 3. Energy Delivery Services -- this is the "wires" only piece of what  
25 the Company labels as "distribution."
- 26 4. Revenue Cycle Services -- this is the "non-wires" piece of the  
27 Company's "distribution" charge, and includes metering, meter reading,

1 billing and customer billing records and a portion of uncollectible accounts  
2 expense.

3 Charges for transmission services and ancillary services will be set in  
4 accordance with the FERC Open Access Transmission Tariff applicable to the  
5 EDC.

6 **Q. WHY ARE YOU PROPOSING TO SPLIT DISTRIBUTION RELATED**  
7 **SERVICES BETWEEN ENERGY DELIVERY SERVICES AND REVENUE**  
8 **CYCLE SERVICES?**

9  
10 A. EPMI witnesses Muench and Brown make a compelling case for the need to  
11 unbundle competitive services from monopoly services. Their testimony more  
12 than adequately supports the need for unbundling, and I will not repeat it here.  
13 Regardless of whether Revenue Cycle Services are open to competition  
14 immediately or at a later date, the current level of costs incurred for Revenue  
15 Cycle Services must be fully unbundled from Energy Delivery Service charges so  
16 that end-users using an EDC's distribution facilities can readily identify the  
17 charges for such services. The Commission's July 10th ruling indicates that the  
18 issue of Revenue Cycle Services is to be further explored. The identification of  
19 current costs of Revenue Cycle Services will facilitate that process and may  
20 facilitate development of a competitive market.

21 **Q. PLEASE DESCRIBE THE PROCESS YOU USED TO DEVELOP**  
22 **PROPOSED CHARGES FOR ENERGY DELIVERY AND REVENUE**  
23 **CYCLE SERVICES.**  
24

25 A. There were several steps to the process I employed. These steps were required in  
26 order to reflect all of the adjustments I am recommending to the functionalization  
27 of total company revenue requirements. The results of my analysis of unbundled,  
28 class-specific energy delivery and revenue cycle charges is provided in Exhibit 2,

1 PDR-4. This exhibit parallels Duquesne's Exhibit JAL-9. The process I used is  
2 as follows:

- 3 • Each category of distribution costs was allocated to each of the existing  
4 customer classes using the same class allocation factors used in  
5 Mr. Lahtinen's cost of service study. For example, distribution primary  
6 demand-related costs were allocated to each class using Duquesne's  
7 allocation factor No. 8 -- class maximum demands (the documentation for  
8 this portion of the analysis is provided in Exhibit 2, PDR-5).
- 9 • From this analysis, I derived the amount of revenue requirements  
10 attributable separately to Energy Delivery Services and Revenue Cycle  
11 Services.
- 12 • Finally, I designed unbundled rates using the revenue requirements for  
13 Energy Delivery Services and Revenue Cycle Services from my functional  
14 cost of service study and West Penn's computed revenue requirements for  
15 transmission and ancillary services from Exhibit JFB-1, Tables D and E,  
16 respectively. In computing charges for Energy Delivery Services and  
17 Revenue Cycle Services, distribution charges were split proportionately,  
18 such that all customer charges, demand charges and energy charges now  
19 have two separate components.

20 **Q. EXHIBIT 2, PDR-4 DOES NOT INCLUDE SEPARATELY STATED CTC**  
21 **CHARGES. WHY ARE THEY NOT INCLUDED?**

22  
23 **A.** I have not studied the appropriateness of Duquesne's proposed energy prices or  
24 CTC amounts. The focus of my efforts has been on determining appropriate  
25 unbundled T&D charges. As I observed earlier in my testimony, customer service  
26 expenses and applicable portions of uncollectible accounts allowances are not

1 stranded costs. Care must be taken to make certain that these costs are not  
2 included in the CTC.

3  
4 **VI. DISTRIBUTION SERVICE TARIFF**

5 **Q. WHAT IS THE PURPOSE OF THIS SECTION OF YOUR TESTIMONY?**

6  
7 **A.** In this section of my testimony, I will present for the Commission's consideration  
8 a pro forma Distribution Services Tariff. An accompanying Electric Supplier  
9 Tariff is also offered by EPMI as is described in the Direct Testimony of Mr.  
10 Lynn Coles.

11 **Q. WHY ARE YOU PROPOSING SUCH A TARIFF?**

12  
13 **A.** The rules and regulations proposed by Duquesne do not envision an environment  
14 where an energy service provider makes all necessary arrangements (acts as agent)  
15 for individual or aggregated end users. The Distribution Services Tariff I am  
16 proposing will apply to suppliers who will be responsible for making all necessary  
17 arrangements for individual or aggregated end-user customers. As such, it would  
18 apply equally as well to Duquesne and its energy supplier affiliates. The Tariff  
19 sets forth a common set of basic rules that would apply to retail open access and  
20 delineates all applicable charges so that suppliers will be able to determine their  
21 *costs to deliver electric power and energy to their end-user customers.*

22 In my opinion, it is of fundamental importance that there be standardized  
23 and consistent distribution service tariffs throughout a state and between states to  
24 *allow full competition. Otherwise, unjustified differences in terms and conditions*  
25 *of service of various existing electric utilities will prevent equal treatment and the*  
26 *ultimate customers will be denied the benefits of full competition.*

1 I believe there should be a full and complete dialogue by all interested  
2 parties on both the Distribution Services Tariff and the Electric Supplier Tariff.

3 As a contribution toward starting that process, EPMI has asked that I prepare and  
4 present a pro forma Distribution Services Tariff governing the relationship  
5 between the EDC and eligible end users or Electric Suppliers using such services  
6 on a collective basis for its customers. Exhibit 2, PDR-6 is submitted for that  
7 purpose, and is intended as a working document.

8 **Q. YOU REFER TO THIS AS A "PRO FORMA" TARIFF. WHAT DO YOU**  
9 **MEAN BY THAT?**

10  
11 A. Essentially, this tariff is intended to be a generic document that can provide the  
12 basic framework for contractual arrangements that would apply to any of the  
13 jurisdictional utilities in the state who are required to file and abide by  
14 restructuring plans. This parallels the concepts intended by the FERC in its *pro*  
15 *forma* tariff for transmission service disseminated under its Orders 888 and 888-A.

16 **Q. WHAT PROCESS DID YOU USE TO DEVELOP THIS PROPOSED**  
17 **TARIFF?**

18  
19 A. I began by examining the existing rules and regulations applicable to electric  
20 service in Pennsylvania. I also examined elements of the FERC's pro forma Open  
21 Access Transmission Tariff to identify matters that should be considered part of a  
22 customer tariff. I have previously submitted draft versions of the Tariff in other  
23 restructuring proceedings.

24 **Q. WHAT SERVICES WOULD BE COVERED BY THE PRO FORMA**  
25 **DISTRIBUTION SERVICES TARIFF YOU ARE OFFERING IN EXHIBIT**  
26 **2, PDR-6?**

27  
28 A. The FERC's pro forma open access transmission tariff covers network integration  
29 transmission service and the transmission and generation ancillary services

1 identified by the FERC. The pro forma Distribution Services Tariff must then  
2 cover the remaining services necessary to meet the requirements of Electric  
3 Suppliers taking service on an unbundled basis on behalf of their customers --  
4 retail energy users. As I previously described in the discussion of service and rate  
5 unbundling, those services fall into two principal categories: Energy Delivery  
6 Services and Revenue Cycle Services charges for these services will be covered  
7 in schedules appended to the Tariff. Other schedules to the Tariff would cover  
8 the CTC and other services ancillary to the energy delivery function such as  
9 power factor correction and supply of distribution losses.

10 **Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION WITH  
11 REGARD TO THE PRO FORMA DISTRIBUTION SERVICES TARIFF?**

12  
13 A. I recommend that the Commission adopt the Distribution Services Tariff presented  
14 in Exhibit 2, PDR-6, after giving due consideration to comments received from  
15 interested parties in this proceeding.

16 **VII. RATE DESIGN FOR DISTRIBUTION SERVICES TARIFF**

17 **Q. PLEASE EXPLAIN YOUR PROPOSAL FOR DESIGNING RATES FOR  
18 SERVICES APPLICABLE UNDER THE DISTRIBUTION SERVICES  
19 TARIFF.**

20  
21 A. For the Distribution Services Tariff, I am recommending that rate design and  
22 applicable rates be greatly simplified, with rates designed so as to reflect the  
23 characteristics of the customer's service rather than historical identification by  
24 traditional "class" of service.

25 **Q. PLEASE EXPLAIN.**

26  
27 A. Historically, electric utility customers have been charged for their electric service  
28 on the basis of service classifications -- residential, general service, large high  
29 voltage, lighting, etc. I believe that in the restructured industry, the important

1 pricing distinctions between customers will be the timing of electricity  
2 consumption, the voltage level at which customers take service and whether that  
3 service entails single-phase or poly-phase facilities. This approach has a number  
4 of advantages, including the following:

- 5 • It results in a simplification of rates which better enables the customer to  
6 determine the basis for the charges imposed.
- 7 • It results in a more direct attribution of costs to the type of facilities  
8 actually used by the customer instead of the traditional class-differentiated  
9 rates.
- 10 • Most of the motivation for class rates has to do with generation-related  
11 costs, which will now be provided via a competitive market through which  
12 suppliers will be free to establish energy pricing mechanisms to meet  
13 specific customer needs and desires.

14 **Q. PLEASE EXPLAIN HOW YOU WOULD PROPOSE TO DESIGN RATES**  
15 **FOR ENERGY DELIVERY SERVICES.**

16  
17 A. I have included a sample rate design calculation for Energy Delivery Services in  
18 Exhibit 2, PDR-7. In preparing that exhibit, I first summarized the revenue  
19 requirements attributed to Energy Delivery Services into customer- and demand-  
20 related, further segregating those costs by customer voltage level. From this data  
21 and the allocation and billing data derived from the Company's cost of service, I  
22 developed sample two-part rates for each voltage level. Note that the demand  
23 charge component for service at secondary voltage is cumulative in that it covers  
24 demand-related costs of transmission, primary and secondary voltage facilities.

25 **Q. EARLIER YOU DEFINED REVENUE CYCLE SERVICES TO INCLUDE**  
26 **METERING, METER READING, BILLING AND CUSTOMER BILLING**  
27 **RECORDS. WHY ARE YOU PROPOSING TO ASSESS A SEPARATE**  
28 **CHARGE FOR REVENUE CYCLE SERVICES?**

1 A. Metering, meter reading, billing and customer billing records have nothing to do  
2 with the actual distribution or delivery of power and energy. They constitute the  
3 activities required to measure the amount of service taken, render a bill to the  
4 customer, collect and deposit payments made by customers and to maintain  
5 applicable billing records. Further, these activities may, and are likely to, be  
6 provided in the future by the Electric Supplier or a third-party service vendor. If  
7 these Revenue Cycle Service costs continue to be bundled into rates for  
8 “distribution” service as the Company defines it, Electric Suppliers and/or their  
9 electric generation customers would be paying twice for revenue cycle activities.

10 In addition, I believe the ruling by the Commission on July 10th indicates  
11 that the issue of revenue cycle services is to be further explored and it will  
12 facilitate that exploration if the costs and charges for these services are quantified.

13 **Q. DO YOU HAVE A SAMPLE RATE DESIGN FOR REVENUE CYCLE**  
14 **SERVICES?**

15  
16 A. Yes, Exhibit 2, PDR-7 also provides a rate design for revenue cycle services. The  
17 design of rates for each component — meters, meter reading and billing — are  
18 straightforward: revenue requirements attributed to each activity divided by the  
19 number of bills rendered, weighted as per Duquesne’s own methodology to  
20 recognize higher costs for metering and meter reading for service at higher  
21 voltages.

22 **Q. WOULD IT BE NECESSARY TO POST AND ASSESS THREE**  
23 **DIFFERENT CHARGES?**

24  
25 A. I have shown separate rate components for each of the three activities, but they  
26 could easily be combined into a single charge, in a manner similar to what I have  
27 suggested in my exhibit.

1 Q. **ARE THERE OTHER COST COMPONENTS YOU HAVE EXCLUDED IN**  
2 **DESIGNING RATES FOR THE DISTRIBUTION SERVICES?**

3  
4 A. Yes, I have removed sales, customer information and assistance, uncollectible  
5 accounts expenses, and for the reasons I stated in the early portion of my  
6 testimony, there is no logical reason to continue to bundle these costs into  
7 “distribution” charges as proposed by Duquesne, nor in my view should they be  
8 bundled into Energy Delivery Services or Revenue Cycle Services. Further, under  
9 the Distribution Services Tariff, Electric Suppliers are likely to be taking on  
10 responsibility for customer billing, in which case the Electric Suppliers will now  
11 have the problems associated with uncollectible accounts. Continuing to bundle  
12 these costs into distribution service charges will unfairly cause Electric Suppliers  
13 and their customers to pay twice for uncollectible accounts. The same is true for  
14 sales and customer assistance activities. Electric Suppliers will have their own  
15 marketing and consumer education costs and will need the infrastructure to  
16 respond to customer information and assistance expenses that are directly  
17 attributable to energy delivery safety issues. If such expenses can be identified,  
18 my functional cost of service analysis easily can be amended to accommodate an  
19 appropriate assignment of such costs to energy delivery service charges.

20 Q. **WHAT ABOUT ANCILLARY SERVICES? HOW WOULD YOU DESIGN**  
21 **CHARGES FOR THESE SERVICES?**

22  
23 A. As I stated earlier in my testimony, I believe it is fundamentally important that  
24 rates associated with providing Ancillary Services be separately identified. The  
25 costs of providing Ancillary Services, namely the six services I described earlier,  
26 are predominantly generation-related costs. I have not included a rate design for  
27 ancillary services because such services would be provided under the applicable  
28 Open Access Transmission Tariff, not the Distribution Services Tariff.

1 Q. ARE THERE ANY OTHER RATE ELEMENTS THAT SHOULD BE  
2 COVERED IN THE DISTRIBUTION SERVICES TARIFF?  
3

4 A. Yes. In addition to rates applicable to Energy Delivery and Revenue Cycle  
5 Services, the Distribution Services Tariff will need to include a schedule to cover  
6 applicable CTC charges which an end-user must pay or that an Electric Supplier  
7 will need to pay on behalf of its end-user customers during any applicable  
8 transition period. Further, it may be appropriate to allow for other charges under  
9 the Distribution Services Tariff to provide for services ancillary to the energy  
10 delivery function, such as power factor correction or the supply of distribution  
11 losses.

12 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?  
13

14 A. Yes, it does.

**Educational Background:**

Bachelor of Science Degree in Electrical Engineering  
Purdue University, West Lafayette, Indiana, June, 1969  
Masters Degree in Business Administration  
Butler University, Indianapolis, Indiana, June, 1974

**Professional Registration:**

Registered as a Professional Engineer in the States of Indiana, Ohio, Kentucky, Michigan and Illinois

**Professional Societies:**

Senior Member - Institute of Electrical and Electronic Engineers  
Member - National Society of Professional Engineers

**Experience:**

1985-Present	Principal/Partner in the firm of R. W. Beck, Inc.
1974-1985	Employed by R. W. Beck. Responsible for studies conducted for numerous clients including distribution, transmission and power supply planning studies: economic feasibility studies; contract negotiations; and retail and wholesale revenue requirements, cost of service, and rate design studies. Presented testimony on numerous occasions before the Federal Energy Regulatory Commission, the Public Service Commission of Indiana and various other regulatory commissions or courts of law.
1969-1974	Employed by Indianapolis Power & Light Company. Developed transmission and distribution systems long-range plans and prepared economic evaluations of construction and operating methods. Responsible for development of a design manual for overhead distribution facilities, development of forecasting techniques for distribution load areas, analysis of customer load characteristics and analysis of system losses.
1965-1969	Employed as a Cooperative Education Student with Indianapolis Power & Light Company. Design of overhead and underground electric distribution facilities and assisted in long-range planning related to the Company's transmission and distribution system.

### Definition and Description of Ancillary Services

**Scheduling, System Control and Dispatch** - services provided by the Control Area operator regarding interchange and load match scheduling and the related system control and dispatch functions that are necessary to operate the Control Area in a safe and reliable manner.

**Reactive Supply and Voltage Control from Generation Sources** - to maintain acceptable transmission voltages on a Transmission Providers facilities, generation facilities in the Control Area where the transmission facilities are located are operated to produce or absorb reactive power. The units of reactive power are defined in terms of Volt and Amperes reactive (VARs). The Transmission Customer must purchase this service from the Transmission Provider or the Control Area operator. The basis for how much reactive supply must be applied with respect to a transaction will be determined based on the reactive power support necessary to maintain transmission voltages within limits.

**Regulation and Frequency Response** - is the continuous balancing of generation and interchange resources accomplished by a Transmission Provider by raising or lowering the output of on-line generation, predominantly through the use of automatic generation control (AGC) equipment, as necessary to follow the moment-by-moment changes in load under the control of the Transmission Provider, and to maintain frequency within the Transmission Provider s Control Area. If generation and load do not balance, or if the frequency is not properly maintained, the system will have an Area Control Error (ACE). Each Control Area is obligated to adhere to the standards regarding minimizing it's ACE according to the operating guides established by the North American Electric Reliability Council (NERC) and the systems regional reliability council.

This service must be purchased by a Transmission Customer when the transmission service is used to serve load within its the Transmission Provider s Control Area. This service is not required for power that is transmitted through or out of one Control Area to serve load in another Control Area. Rather than purchase this service from the Transmission Provider, the Transmission Customer may make alternative, comparable arrangements to satisfy its Regulation and Frequency Response Service obligation. However, although technically possible, providing for comparable arrangements could be an expensive undertaking.

**Energy Imbalance** is to correct for differences between scheduled hourly deliveries and actual hourly deliveries of energy to the load. All proposed Pro Forma Tariffs have Energy Imbalance penalties or incentives that are supposedly intended to encourage transmission users to stay within specified band widths. The Pro Forma Tariff's provisions for this service pose a number of issues for Transmission Customers that are addressed in the next section of this Guide.

**Operating Reserve - Spinning** - involves maintaining generating units that are on-line, but loaded at less than maximum output, and are capable of serving load immediately when disturbance conditions are experienced due to a sudden loss of generation or load. The Transmission Customer must purchase or provide this capability on a pro-rata basis to ensure continuation of supply.

**Operating Reserve - Supplemental** - is an additional amount of generating operating reserve that is sufficient to reduce ACE to zero within ten minutes following loss of generating capacity which would result from the most severe single contingency. The Transmission Customer must purchase or provide this capability on a pro-rata basis to ensure continuation of supply.

	A	B	C	D	E	F	G	H	I	J
1	Duquesne Light Company									
2	Cost of Service									
3	Test Period - 12 Months Ended December 31, 1996									
4										
5										
6		Total			Production			Distribution	Distribution	Customer
7		Utility	FERC Juris.	PA PUC Juris.	Demand	Production Energy	Transmission	Demand	Customer	Service
8	Revenues -- \$000									
9	Revenue Required from Rates	1,057,402	25,358	1,011,101	450,991	335,910	35,137	132,935	54,648	22,423
10	Other Revenues	74,581	63	74,518	44,787	7,134	8,493	10,165	3,939	0
11	Total Revenue	1,131,983	25,421	1,085,619	495,778	343,044	43,631	143,100	58,587	22,423
12	Operating Expenses -- \$000									
13	Operation & Maintenance Expense	556,132	24,207	531,708	164,884	283,771	12,101	31,765	17,675	21,729
14	Depreciation and Amortization	289,331	252	289,079	207,772	31,821	6,588	30,110	12,788	0
15	Taxes Other Than Current Income Taxes	(26,539)	(33)	(26,505)	(34,665)	(5,582)	2,838	8,315	2,588	0
16	Income Taxes	95,453	72	95,381	49,761	7,926	7,611	21,682	8,402	0
17	Gross Receipts Tax	32,717	785	31,285	13,954	10,394	1,087	4,113	1,691	694
18	Total Expenses	947,095	25,283	920,947	401,706	328,329	30,225	95,985	43,144	22,423
19										
20	Net Utility Income - \$000	184,888	138	164,672	94,072	14,714	13,405	47,115	15,443	(0)
21										
22	Rate Base -- \$000	2,368,920	1,767	2,109,906	1,205,316	188,533	171,759	603,678	197,867	0
23										
24	Rate of Return	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%
25										

	A	H	L	M	N	O	P	Q
1	<b>Duquesne Light Company</b>							
2	<b>Cost of Service</b>							
3	<b>Test Period - 12 Months Ended December 31, 1996</b>							
4								
5								
6		<b>Total Distribution Demand</b>	<b>Transmission</b>	<b>Network</b>	<b>Sub-Transmission</b>	<b>Primary</b>	<b>Secondary</b>	<b>Services</b>
7	Revenues -- \$000							
8	Revenue Required from Rates	132,935	14,558	17,102	34,966	45,259	11,027	10,025
9	Other Revenues	10,165	1,173	1,435	2,578	3,242	809	926
10	Total Revenue	143,100	15,731	18,537	37,544	48,501	11,836	10,951
11								
12	Operating Expenses -- \$000							
13	Operation & Maintenance Expense	31,765	2,717	2,690	9,211	12,981	3,075	1,091
14	Depreciation and Amortization	30,110	3,556	4,178	7,741	9,580	2,406	2,648
15	Taxes Other Than Current Income Taxes	8,315	979	1,220	2,100	2,642	639	735
16	Income Taxes	21,682	2,503	3,062	5,499	6,916	1,726	1,976
17	Gross Receipts Tax	4,113	450	529	1,082	1,400	341	310
18	Total Expenses	95,985	10,206	11,679	25,634	33,519	8,187	6,760
19								
20	Net Utility Income - \$000	47,115	5,525	6,858	11,910	14,982	3,649	4,191
21								
22	Rate Base -- \$000	603,678	70,797	87,869	152,603	191,966	46,748	53,694
23								
24	Rate of Return	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%
25								

	A	I	L	M	N	O	P	Q
1	Duquesne Light Company							
2	Cost of Service							
3	Test Period - 12 Months Ended December 31, 1996							
4								
5								
6		Total Distribution Customer	Transmission	Network	Sub-Transmission	Primary	Secondary	Services
7	Revenues -- \$000							
8	Revenue Required from Rates	54,648	14,558	17,102	34,966	45,259	11,027	10,025
9	Other Revenues	3,939	1,173	1,435	2,578	3,242	809	926
10	Total Revenue	58,587	15,731	18,537	37,544	48,501	11,836	10,951
11								
12	Operating Expenses -- \$000							
13	Operation & Maintenance Expense	17,675	2,717	2,690	9,211	12,981	3,075	1,091
14	Depreciation and Amortization	12,788	3,556	4,178	7,741	9,580	2,406	2,648
15	Taxes Other Than Current Income Taxes	2,588	979	1,220	2,100	2,642	639	735
16	Income Taxes	8,402	2,503	3,062	5,499	6,916	1,726	1,976
17	Gross Receipts Tax	1,691	450	529	1,082	1,400	341	310
18	Total Expenses	43,144	10,206	11,679	25,634	33,519	8,187	6,760
19								
20	Net Utility Income - \$000	15,443	5,525	6,858	11,910	14,982	3,649	4,191
21								
22	Rate Base -- \$000	197,867	70,797	87,869	152,603	191,966	46,748	53,694
23								
24	Rate of Return	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%	7.80%
25								

	A	J	AA	AB	AC	AD	AE
1	Duquesne Light Company						
2	Cost of Service						
3	Test Period - 12 Months Ended December 31, 1996						
4							
5							
6		Total Customer Service	Meter Reading	Billing and Collections	Uncollectible Accounts	Customer Service & Information	Sales
7	Revenues -- \$000						
8	Revenue Required from Rates	22,423	0	22,423	0	0	0
9	Other Revenues	0	0	0	0	0	0
10	Total Revenue	22,423	0	22,423	0	0	0
11							
12	Operating Expenses -- \$000						
13	Operation & Maintenance Expense	21,729	0	21,729	0	0	0
14	Depreciation and Amortization	0	0	0	0	0	0
15	Taxes Other Than Current Income Taxes	0	0	0	0	0	0
16	Income Taxes	0	0	0	0	0	0
17	Gross Receipts Tax	694	0	694	0	0	0
18	Total Expenses	22,423	0	22,423	0	0	0
19							
20	Net Utility Income - \$000	(0)	0	(0)	0	0	(0)
21							
22	Rate Base -- \$000	0	0	0	0	0	0
23							
24	Rate of Return						

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
	Duquesne Light Company EMPI Class-Based Rate Design COMPARISON OF CURRENT BUNDLED AND PROPOSED UNBUNDLED USAGE RATES (1)														
								Unbundled Usage Delivery Charges As Proposed by EPMI							
	Rate	Bills	kW	Billing Determinants kWh x 1000		Current Bundled Usage Rates (2)	Transmission T	Ancillary Services	Energy Delivery Services Fixed	Energy Delivery Services Variable	Revenue Cycle Services Fixed	Revenue Cycle Services Variable	Total T&D Related Charges	Total Revenue Market CGC + Fxd & Var CTC	
13	RS	5,955,305			5,955,305	\$ 6.42			\$ 4.76		\$ 1.62				
14	All kWh			2,977,269	2,977,269,000	\$ 0.1166	\$ 0.0029	\$ 0.0018		\$ 0.0145		\$ 0.0049			
15	Total Billing Units	5,955,305		2,977,269		\$ 385,382,624	\$ 8,634,080	\$ 5,359,084	\$ 28,347,252	\$ 43,170,401	\$ 9,647,594	\$ 14,588,618	\$ 109,747,029	\$ 269,591,722	
17	RH	272,708			272,708	\$ 6.42			\$ 4.76		\$ 1.62				
18	Summer			155,535	155,535,000	\$ 0.1166	\$ 0.0029	\$ 0.0025		\$ 0.0202		\$ 0.0043			
19	Excess kWh					\$ 0.1166	\$ 0.0029	\$ 0.0025		\$ 0.0202		\$ 0.0043			
20	Winter					\$ 0.1166	\$ 0.0029	\$ 0.0025		\$ 0.0202		\$ 0.0043			
21	Excess kWh			153,666	153,666,000	\$ 0.0449	\$ 0.0019	\$ 0.0016		\$ 0.0106		\$ 0.0029			
22	Total Billing Units	272,708		309,201		\$ 26,785,770	\$ 743,017	\$ 634,703	\$ 1,298,090	\$ 4,770,667	\$ 441,787	\$ 1,114,432	\$ 9,002,696	\$ 17,248,649	
24	RA	33,516			33,516	\$ 6.42			\$ 4.76		\$ 1.62				
25	Summer					\$ 0.1166	\$ 0.0032	\$ 0.0021		\$ 0.0169		\$ 0.0045			
26	Excess kWh			24,159	24,159,000	\$ 0.1166	\$ 0.0032	\$ 0.0021		\$ 0.0169		\$ 0.0045			
27	Winter					\$ 0.1166	\$ 0.0032	\$ 0.0021		\$ 0.0169		\$ 0.0045			
28	Excess kWh			9,689	9,689,000	\$ 0.0449	\$ 0.0021	\$ 0.0014		\$ 0.0059		\$ 0.0030			
29	Total Billing Units	33,516		33,848		\$ 3,467,148	\$ 97,656	\$ 64,299	\$ 159,536	\$ 465,452	\$ 54,296	\$ 137,783	\$ 979,021	\$ 2,421,568	
31	GS/GM	616,548			616,548	\$ 9.13			\$ 8.35		\$ 0.72				
32	First 5 kW					\$ 0									
33	Additional kW		6,977,437		6,977,437	\$ 18.34	\$ 0.69	\$ 0.34		\$ 2.71		\$ 0.27			
34	First 550 kWh			211,324	211,324,000	\$ 0.1397	\$ 0.0038	\$ 0.0019		\$ 0.0151		\$ 0.0015			
35	Next 750 kWh			212,613	212,613,000	\$ 0.1309	\$ 0.0035	\$ 0.0017		\$ 0.0138		\$ 0.0014			
36	Additional kWh			2,197,209	2,197,209,000	\$ 0.0380	\$ 0.0015	\$ 0.0007		\$ 0.0054		\$ 0.0006			
37	Total Billing Units	616,548	6,977,437	2,621,146		\$ 274,442,224	\$ 9,657,422	\$ 4,673,333	\$ 5,148,176	\$ 36,898,835	\$ 443,915	\$ 3,816,878	\$ 60,638,557	\$ 217,846,988	
39	GMH	40,284			40,284	\$ 9.13			\$ 8.35		\$ 0.72				
40	Summer					\$ 0									
41	Additional kW		288,982		288,982	\$ 18.34	\$ 0.72	\$ 0.42		\$ 3.91		\$ 0.19			
42	First 550 kWh			6,698	6,698,000	\$ 0.1397	\$ 0.0041	\$ 0.0024		\$ 0.0219		\$ 0.0011			
43	Next 750 kWh			6,647	6,647,000	\$ 0.1309	\$ 0.0037	\$ 0.0022		\$ 0.0200		\$ 0.0010			
44	Additional kWh			82,118	82,118,000	\$ 0.0380	\$ 0.0015	\$ 0.0009		\$ 0.0083		\$ 0.0004			
45	Winter					\$ 0.1146	\$ 0.0031	\$ 0.0018		\$ 0.0165		\$ 0.0008			
46	Additional kWh			116,407	116,407,000	\$ 0.0380	\$ 0.0015	\$ 0.0009		\$ 0.0081		\$ 0.0004			
47	Total Billing Units	40,284	288,982	328,255		\$ 28,355,197	\$ 918,704	\$ 540,237	\$ 336,371	\$ 4,954,374	\$ 29,004	\$ 241,439	\$ 7,020,130	\$ 20,542,530	
49	GLH	843			843	\$ 9.13			\$ 8.35000		\$ 0.72000				
50	Summer			426	426	\$ 55,527.00	\$ 496.85	\$ 233.61		\$ 1,214.62		\$ 5.28			
51	Additional kW		215,770		215,770	\$ 13.98	\$ 0.63	\$ 0.30		\$ 1.54		\$ 0.01			
52	All kWh			151,225	151,225,000	\$ 0.0380	\$ 0.0017	\$ 0.0008		\$ 0.0043		\$ 0.0000			
53	Winter					\$ 0.1146	\$ 0.0035	\$ 0.0016		\$ 0.0085		\$ 0.0000			
54	Additional kWh			200,420	200,420,000	\$ 0.0380	\$ 0.0017	\$ 0.0008		\$ 0.0044		\$ 0.0000			
55	Total Billing Units	843	216,196	455,220		\$ 30,610,868	\$ 1,307,902	\$ 611,285	\$ 7,039	\$ 3,262,217	\$ 607	\$ 4,407	\$ 5,193,457	\$ 24,593,092	
57	GL														
58	First 300 kW		7,668		7,668	\$ 55,527.00	\$ 322.19	\$ 152.87		\$ 850.52		\$ 3.78			
59	Additional kW		4,324,871		4,324,871	\$ 13.98	\$ 0.41	\$ 0.19		\$ 1.08		\$ -			
60	All kWh			2,884,888	2,884,888,000	\$ 0.0380	\$ 0.0011	\$ 0.0005		\$ 0.0031		\$ 0.0000			
61	Total Billing Units		4,332,539	2,884,888		\$ 212,468,477	\$ 7,404,152	\$ 3,449,351	\$ -	\$ 20,118,501	\$ -	\$ 28,985	\$ 31,000,990	\$ 173,874,701	
63	L														
64	First 5,000 kW		312		312	\$ 71,289.00	\$ 4,593.81	\$ 2,017.61		\$ 6,277.37		\$ 7.52			
65	Next 10,000 kW		1,138,342		1,138,342	\$ 11.45	\$ 0.37	\$ 0.16		\$ 0.50		\$ -			
66	Next 25,000 kW		21,725		21,725	\$ 11.13	\$ 0.3586	\$ 0.1575		\$ 0.4900		\$ 0.0006			



	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	DUQUESNE LIGHT COMPANY															
2	SUMMARY OF UNBUNDLED COSTS															
3	12 MONTHS ENDED DECEMBER 31, 1996															
4	(\$000's)															
5		Total														Traffic
6		PA Juris	RA	RS	RH	GS/GM	GMH	GL	GLH	L	HVPS	AL	SE	SM	SH	Signals
7																
8	<u>Transmission Costs Allocated by Customer Class</u>															
9		35,137,272	98,959	8,530,550	742,172	9,534,359	922,108	7,508,761	1,321,644	3,517,782	2,893,155	11	20,203	22,200	591	24,778
10		2,072,725	5,838	503,212	43,780	562,426	54,395	442,937	77,963	207,512	170,665	1	1,192	1,310	35	1,462
11	<u>Ancillary Services per Duquesne Exhibit JAL-1A</u>															
12		18,586,339	65,717	5,441,306	641,841	4,643,004	543,212	3,562,675	621,422	1,545,019	1,356,860	25	60,689	91,204	1,611	11,754
13																
14	<u>Distribution Costs Allocated by Class of Services</u>															
15	<u>Energy Delivery Services</u>															
16		14,557,668	50,911	4,015,317	528,057	3,892,112	497,068	2,775,254	470,679	1,129,482	1,118,097	19	34,582	38,007	1,011	7,071
17		17,101,569	-	-	-	3,486,589	654,922	9,405,946	1,571,613	1,982,500	-	-	-	-	-	-
18	<u>Subtransmission Demand</u>															
19		34,965,950	136,108	10,734,734	1,411,732	10,405,351	1,328,898	7,221,328	1,258,336	2,253,739	-	52	92,454	101,609	2,703	18,905
20	<u>Primary Demand</u>															
21		45,259,044	270,066	21,299,859	2,801,159	17,211,717	1,937,543	1,190,871	119,793	-	-	103	183,448	201,613	5,362	37,511
22	<u>Secondary Demand</u>															
23		11,026,573	65,797	5,189,337	682,453	4,193,333	472,048	290,135	29,185	-	-	25	44,694	49,119	1,306	9,139
24	<u>Services Demand</u>															
25		10,024,557	37,086	4,561,936	253,773	2,037,008	282,110	1,491,317	235,106	562,477	530,984	8	14,040	15,430	410	2,871
26	<u>Network Customer</u>															
27		3,068,352	-	-	-	2,392,799	446,071	201,119	20,628	7,735	-	-	-	-	-	-
28	<u>Subtransmission Customer</u>															
29		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30	<u>Primary Customer</u>															
31		19,161,111	80,032	14,033,175	644,296	1,456,903	95,225	17,876	3,022	537	-	56	1,102,801	1,656,503	22,959	47,726
32	<u>Secondary Customer</u>															
33		15,989,399	71,110	12,468,685	572,467	1,261,183	78,537	2,484	251	-	-	50	-	1,471,828	20,400	42,405
34	<u>Services</u>															
35		3,608,184	17,750	3,112,431	142,899	314,816	19,604	620	63	-	-	-	-	-	-	-
36	<u>Street and Area Lights</u>															
37		5,569,502	-	-	-	-	-	-	-	-	-	-	1,670,000	3,899,502	-	-
38	<u>Total</u>															
39		165,774,241	677,949	71,400,157	6,508,779	42,759,701	5,314,959	19,821,697	3,237,995	4,806,987	530,984	294	3,107,437	7,395,606	53,140	158,555
40	<u>Revenue Cycle Service Charges</u>															
41		7,251,008	28,661	5,092,753	233,242	1,701,618	115,761	63,487	9,958	4,750	779	-	-	-	-	-
42	<u>Meter Reading</u>															
43		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
44	<u>Billing and Collections</u>															
45		22,423,175	108,028	19,195,143	879,113	1,987,240	129,842	24,715	4,100	1,006	116	77	39	27,732	541	65,482
46	<u>Customer Info. and Asst. (Conservation Programs)</u>															
47		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
48	<u>Uncollectible Accounts</u>															
49		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
50	<u>Sales</u>															
51		0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
52	<u>Total</u>															
53		29,674,183	136,689	24,287,897	1,112,355	3,688,857	245,603	88,202	14,058	5,755	895	77	39	27,732	541	65,482
54	<u>Total Distribution</u>															
55		195,448,424	814,638	95,688,054	7,621,134	46,448,558	5,560,563	19,909,899	3,252,053	4,812,743	531,879	371	3,107,476	7,423,338	53,682	224,037
56	<u>Energy Delivery Services as % of Total</u>															
57		84.82%	83.22%	74.62%	85.40%	92.06%	95.58%	99.56%	99.57%	99.88%	99.83%	79.16%	-	-	-	-
58	<u>MBC as % of Total</u>															
59		15.18%	16.78%	25.38%	14.60%	7.94%	4.42%	0.44%	0.43%	0.12%	0.17%	20.84%	-	-	-	-
60	<u>Uncollectibles as % of Total</u>															
61		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
62	<u>Sales as % of Total</u>															
63		100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
64																

	B	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	DUQUESNE LIGHT COMPANY															
2	SUMMARY OF UNBUNDLED COSTS															
3	12 MONTHS ENDED DECEMBER 31, 1996															
4	(\$000's)															
46		Total														TRAFFIC
47	Class Allocation Factors	PA Juris	RA	RS	RH	GS/GM	GMH	QL	GLH	L	HVPS	AL	SE	SM	SH	SIGNALS
48	<u>Energy Delivery Service Components</u>															
49	NCP (Class Customer Peaks)	3,009,831	10,526	830,176	109,177	804,703	102,770	573,790	97,314	233,523	231,169	4	7,150	7,858	209	1,462
50	Class Max @ Gen. Level - Network (D21C)	205,400	-	-	-	41,876	7,866	112,971	18,876	23,811	-	-	-	-	-	-
51	Class Max @ Gen. Level - Subtransmission (D20C)	2,704,109	10,526	830,176	109,177	804,703	102,771	558,465	97,314	174,294	-	4	7,150	7,858	209	1,462
52	Class Max @ Gen. Level - Subtran/Network Total (D)	1,764,001	10,526	830,176	109,177	670,838	75,517	46,415	4,669	-	-	4	7,150	7,858	209	1,462
53	Class Max @ Gen. Level - Secondary Less Series (D3)	1,764,001	10,526	830,176	109,177	670,838	75,517	46,415	4,669	-	-	4	7,150	7,858	209	1,462
54	MDD (Non-Coincidental - Individual Customer Peaks)	5,105,052	18,886	2,323,187	129,235	1,037,356	143,666	759,460	119,729	286,444	270,406	4	7,150	7,858	209	1,462
55	Total Number Of Network Customers (C21)	1,190	-	-	-	928	173	78	8	3	-	-	-	-	-	-
56																
57	Total Number Of SubTrans/Network Customers (C30)	678,509	2,834	496,925	22,815	51,590	3,372	633	107	19	-	2	39,051	58,658	813	1,690
58	Total Number Of Secondary less series Customers (C3)	637,239	2,834	496,925	22,815	50,263	3,130	99	10	-	-	2	-	58,658	813	1,690
59	Total Number Of Secondary less St. Lig. Customers (	576,076	2,834	496,925	22,815	50,263	3,130	99	10	-	-	-	-	-	-	-
60	Direct - Street Lighting Account 373 (CXP1)	21,786,039											6,532,484	15,253,555		
61	<u>Revenue Cycle Service Components</u>															
62	Weighted Customer Meters Investment (CW1)	1,167,589	2,834	496,925	22,815	536,820	37,345	51,840	9,290	7,800	1,920	-	-	-	-	-
63	Customer Service Costs	706,598	2,793	496,280	22,729	165,820	11,281	6,187	970	463	76	-	-	-	-	-
64	Customer Service Costs	706,598	2,793	496,280	22,729	165,820	11,281	6,187	970	463	76	-	-	-	-	-
65	Average Customers (Based on 1996 Data)	579,739	2,793	496,280	22,729	51,379	3,357	639	106	26	3	2	1	717	14	1,693
66	Average Customers (Based on 1996 Data)	579,739	2,793	496,280	22,729	51,379	3,357	639	106	26	3	2	1	717	14	1,693
67	Average Customers (Based on 1996 Data)	579,739	2,793	496,280	22,729	51,379	3,357	639	106	26	3	2	1	717	14	1,693
68																
69																
70																
71	Distribution Plant Account Direct Assignment (P362A)	43,268,966	-	180901	0	2744634	17328	10916019	169947	29240137	0	0	0	0	0	0
72																
73																
74																
75																
76																
77	Distribution Plant Account Direct Assignment (P368A)	13,892,831	-	1881921	114455	3526687	872144	6197677	1299947	0	0	0	0	0	0	0
78																

DISTRIBUTION SERVICES TARIFF ("TARIFF")

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- Attachment B -- Line Extension and Reimbursement Policy
- Attachment C -- Standards for Underground Service in New Developments
- Attachment D -- Reimbursement Policy for Relocation of Electric Distribution Facilities

1. Definitions:
  - 1.1 AC - alternating current
  - 1.2 Aggregated Daily Load Curve - The hourly load curve provided by the EDC which establishes the amount of energy a Supplier will be obligated to supply in each hour of the month for those End Users for which hourly demand interval metering is not available.
  - 1.3 Bad Credit - A Customer has bad credit if the Customer has been delinquent on two non-disputed consecutive bills or three or more non-disputed bills in the last twelve billing cycles or has tendered two or more checks which the drawee returns as unpaid within the past twelve billing cycles.
  - 1.4 Billing Demand - The calculated or measured demand after correction, if any, for power factor; except that the billing demand may be limited to a minimum figure.
  - 1.5 Capacity Charge - A charge based on demand, either with or without power factor correction.
  - 1.6 Commission - The respective regulatory body in the state handling jurisdictional electric utilities.
  - 1.7 Continuous Service - Service which the EDC endeavors to keep available at all times.
  - 1.8 Control Area - An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied.
  - 1.9 Creditworthy - A creditworthy Customer pays the EDC's charges as and when due and otherwise complies with the rules and regulations.
  - 1.10 Customer - An eligible Electric Generation Supplier acting on behalf of one or more End Users pursuant to a contractual arrangement between the End Users and the Electric Generation Supplier which expressly authorizes the Electric Generation Supplier to purchase service from this Tariff on the End Users' behalf.
  - 1.11 Demand - The maximum rate-of-use of energy during a specified time

interval, expressed in kilowatts.

- 1.12 Energy Charge - A charge based upon kilowatt-hours of use.
- 1.13 Electric Generation Supplier (or "Supplier") - a potential or actual supplier of electric power and/or energy. An eligible Supplier is one who meets Commission criteria to offer and is licensed to supply electric energy to End Users.
- 1.14 EDC - The local Electric Distribution Company, "the wires company" that provides electric distribution service.
- 1.15 End User - Any person, partnership, association or corporation, lawfully receiving electric power and/or energy at a single meter location.
- 1.16 Good Utility Practice - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period.
- 1.17 Host Control Area - The EDC, or if the EDC does not act as the Control Area, the appropriate Control Area for the Customer's load within the EDC's franchise area.
- 1.18 kV - kilovolts - 1000 volts.
- 1.19 kVA, kilovoltampere - Unit of measurement of rate of use which determines electrical capacity required.
- 1.20 kW, kilowatt - Unit of measurement of useful power.
- 1.21 kWh, kilowatt-hour - Unit of measurement of energy.
- 1.22 Meter Service Provider - the provider of the meter for measuring electrical energy and power use.
- 1.23 Month - A month means 1/12 of a year or a period approximately 30 days between two regular consecutive readings.
- 1.24 Open Access Transmission Tariff - The tariff filed with the Federal Energy Regulatory Commission (FERC) applicable to the Electric Distribution Company.
- 1.25 Point of Delivery - The single point at which the service-supply lines of the

EDC terminate and the End User's facilities for receiving the service begin.

- 1.26 Power Factor - In a single-phase circuit the ratio of watts to the volt-amperes, and in a polyphase circuit, is the ratio of the total watts to the vector sum of the volt-amperes in the several phases.

2. Energy Delivery Service

- 2.1 Purpose. The purpose of this Distribution Services Tariff is to outline the various functions and services provided by the EDC to a Customer to make available direct access to End Users.
- 2.2 Electric Distribution Company Responsibilities. The EDC has the responsibility to provide non-discriminatory access to its distribution facilities in a safe and reliable manner using Good Utility Practice. The EDC may terminate service to a Point of Delivery without notice if the End User's installation has become hazardous or defective, or if the Customer's or End User's use of the distribution facilities might injuriously affect the equipment of the EDC or the service to other Customers or End Users.
- 2.3. End User Responsibilities. The Customer shall ensure that the End User is responsible for safekeeping of the property of the EDC. In the event of injury or destruction of any such property the Customer shall require that the End User pay the costs of repairs and replacement. The Customer shall obligate the End User to protect the equipment of the EDC and the Customer on the End User's premises and shall not permit any person, except an employee of either the EDC or the Customer, to break any seals upon or do any work on any apparatus of the EDC located on the End User's premises. The Customer shall require that the End User give notice of any changes that might affect safety of personnel or property of the EDC.
- 2.4 Customer Responsibilities. The Customer shall be responsible for ensuring that its and the End User's use of the EDC's facilities are in accordance with Good Utility Practice. The Customer shall be responsible of timely payment of services provided. The Customer shall give notice of any changes that might affect safety of personnel or property of the EDC.
- 2.5 Restrictions on Use of Service. Service is only to be used in the manner in which it is intended and within the applicable electric codes and standards.

3. Service Characteristics

3.1. Standard Single Phase, 60 Hertz, 24 hours/day. Standard single-phase secondary service is alternating current, 60 hertz, that is nominally 120/240 volts, 3 wires; or 120 volts, 2 wires to installations consisting of not more than two 15-ampere branch circuits or such other standard as established by the EDC and as approved by the Commission.

3.2. Standard Polyphase Nominal Service Voltages

3.2.1. Secondary Service, 60 Hertz, 24 hours/day. Nominally 240 volts, 3-phase, 3 wires with a fourth wire neutral extended for the supply of 120/240 volt single-phase equipment; or nominally 120/208 volts, 3-phase, 4 wires where 3-phase is available; or nominally 277/480 volts, 3-phase, 4 wires where 3-phase is available or such other standard as established by the EDC and as approved by the Commission.

3.2.2. Primary Service, 60 Hertz, 24 hours/day. Nominally 2,400 volts, 3-phase, 3 wires; 4,160 volts, 3-phase, 3 or 4 wires; 7,200/12,407 volts; or 7,620/13,200 volts, 4-wire, three phase service or such other standard as established by the EDC and as approved by the Commission.

3.2.3. Transmission Service (as appropriate). Nominally 34,500, 46,000, or 69,000 volts as available or such other standard as established by the EDC and as approved by the Commission.

3.3. Exceptional Service Requirements

3.3.1. Non-Standard Service Voltage. The Customer shall require the End User to pay the cost of any special installation necessary to meet the End User's unusual requirements for service, including but not limited to service at other than standard voltages, or for the supply of higher quality voltage regulation than required by standard service.

3.3.2. Non-Standard Facilities Configuration. The Customer shall require

the End User to provide or pay the cost of any special installation necessary to meet the End User's unusual requirement for service in addition to standard service. If non-standard facilities are provided by the Customer or the End User, said facilities must be approved in advance by the EDC.

3.3.3. **Underground Service.** The Customer shall require the End User to bear the excess cost, if any, where the End User desires underground service from overhead wires.

3.4. **Service Interruptions.** The EDC shall use Good Utility Practice to minimize service interruptions whether planned (example: planned transformer replacement) or unplanned (example: weather) and shall act with due diligence to restore interrupted or curtailed service..

#### 4. Service Availability

4.1. **General Conditions.** Energy Delivery Service shall be provided to one or more Points of Delivery as requested by the Customer.

4.2. **Initiating Service.** The Customer may contact the EDC for initiation of service.

4.3. **Obligation to Extend or Modify Facilities.** The EDC is obligated to extend or modify facilities to serve Customers consistent with the due diligence conditions in Section 6.2 of this Tariff.

#### 5. Procedures for Arranging Energy Delivery Service

5.1. **Conditions Precedent for Receiving Service.** The EDC should be advised by the Customer concerning the End User's premises to be equipped for electricity, giving exact location, and details of all current-consuming devices to be installed. The Customer shall supply the EDC any information regarding potential or actual contamination, waste or hazardous materials on the End User's premises.

5.2. **Application Procedures.** The Customer must inform the EDC of the request for service with at least 7 days notice and exact information

concerning the location where service is to be delivered.

- 5.3. Creditworthiness. Before the EDC will render service or continue to render service, the EDC may require a current Customer that has Bad Credit or a new Customer whose credit is not established, to provide a cash deposit. In addition, the EDC may require Customers to post a deposit at any time if the EDC determines that the Customer is no longer Creditworthy or has Bad Credit.
  - 5.4. Deposit. The deposit shall not be less than \$1,000.00 nor more than the estimated gross bill for the use of two months of service. The deposit shall either be applied with interest to the Customer's account or returned to the Customer with interest when the Customer becomes Creditworthy. Interest will be simple interest on cash deposits calculated at an annual rate determined by the average of 1-Year Treasury Bills for September, October and November of the previous year ("Interest Index").
  - 5.5. End User Facilities. The Customer shall be responsible for assuring that construction or installation of all facilities on the End User's side of the Point of Delivery pass all required building inspections, meet the applicable requirements of the EDC and are in compliance with the National Electrical Safety Code.
  - 5.6. Service Agreement for Energy Delivery Service. The Customer must sign a Service Agreement with the EDC prior to initiation of Energy Delivery Service.
  - 5.7. Unauthorized Use. Unauthorized connection to the EDC's electric service facilities, and/or the use of service obtained from the EDC without authority, or under false pretense, may be terminated by the EDC.
  - 5.8. Required Customer Arrangements for Open Access Transmission Service and Ancillary Services. The Customer shall be responsible for making all arrangements necessary for transmission and ancillary services pursuant to the Open Access Transmission Tariff applicable to Host Control Area.
6. Procedures for New or Modified Facilities
    - 6.1. New Service Connections. The EDC shall have the right to inspect End

User facilities and reserves the right to reject any wiring or appliances not in accordance with the EDC's standard requirements.

6.1.1. Line Extension Policy. Standards governing the extensions of overhead and underground lines to new Points of Delivery and related cost reimbursement policy are set forth in Attachment B of this Tariff.

6.1.2 Standards for Underground Facilities in New Developments. Specific standards and regulations applicable to underground service in new developments are provided in Attachment C to this Tariff.

6.2. Due Diligence in Completing New Facilities or Modifying Existing Facilities. The EDC has an obligation to provide access from the transmission grid to the Point of Delivery. The EDC will use Good Utility Practice to provide reliable access for the conveyance of energy and power to all Points of Delivery. If new or existing facilities require modification in order to provide reliable access, then the EDC shall apply due diligence in adding necessary facilities or modifying existing facilities.

6.3. Partial Interim Service. If the EDC determines that it will not have adequate distribution capability to satisfy the full amount of firm service required for a Point of Delivery, the EDC nonetheless shall be obligated to offer the portion of requested service that can be accommodated.

6.4. Non-Standard Facilities Requirements and Compensation. If non-standard facilities are required for the Customer then the directly assignable costs of the non-standard facilities shall be paid by the Customer prior to installation.

## 7. Service Changes

### 7.1. Requests for Changes in Service

7.1.1. Termination of Service. In the event the Customer withdraws an application for either new or modified service to a Point of Delivery, the Customer shall reimburse the EDC for all reasonable costs incurred by the EDC in anticipation of supplying the new or modified service.

- 7.1.2. Relocation of Service. Except where provided by law, the cost to relocate service or poles and/or their associated equipment shall be borne by the Customer. The relocation cost shall include labor (including overhead), materials, storage expense and transportation, less the salvage value of any equipment replaced. The EDC will notify the Customer in writing of the relocation cost and advance payment to be made to the EDC prior to the relocation except in special circumstances. Reimbursements of costs, resulting from relocation of service shall be covered by the provision of Attachment D to this Tariff.
- 7.2. Notification of Changes in Expected Use or Usage Patterns. The Customer shall require that significant changes in either the amount of energy or the usage pattern shall be communicated from the End User to either the EDC or the Customer. If the End User communicates this information to the Customer, the Customer shall provide such information to the EDC in a timely manner. If the End User communicates this information to the EDC then the EDC shall provide such information to the Customer in a timely manner. If the End User does not provide notification of changes in expected use or usage patterns to either the Customer or EDC then the End User shall be liable for any damage to the meters or their auxiliary apparatus, or the transformers, or wires, of the EDC and Customer.
8. Operating Procedures
- 8.1. Cooperation. Cooperation is a necessary condition between the EDC, Customers, and other parties associated with supplying electric service to End Users. The EDC and the Customer shall negotiate in good faith to resolve service issues.
- 8.2. Energy Delivery Scheduling. The Customer is responsible for providing all information for energy scheduling required by the EDC or the Host Control Area.
- 8.3. Exchange of Load Shape Data. If the EDC is the Meter Service Provider, the EDC shall be responsible for providing load shape information to the Customer to the extent necessary in order for the Customer to meet its responsibility under Section 8.2. Fees for providing such load shape data

are set forth in Schedule 6 appended to this Tariff.

- 8.4 **Planned Outage Notification.** The EDC and the Customer are required to inform each other as soon as reasonably achievable in the event of planned outages that may effect the Aggregated Daily Load Curve or other electric service functions.

9. **Billing and Payment**

- 9.1. **Billing Procedure.** The EDC shall render within 10 days following the end of the calendar month all charges as are applicable to the Customer. Unless otherwise stipulated, the EDC shall bill the Customer separately for each Point of Delivery based on the rates under this Tariff.

- 9.2. **Payment Provisions.** Bills are payable upon presentation. Payment for service received must be made on or before the due date shown on the bill. The payment period will not be extended because of the Customer's failure to receive a bill unless said failure is due to the fault of the party responsible for billing.

- 9.2.1. **Late Payment Charge.** For late payments a finance charge of 1 1/4 % per month will be charged on the outstanding amount of the bill. Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. If the party responsible for collections files suit to collect a delinquent balance on an account or to ensure payment of current bills, the Customer will be required to pay the collections agent's out-of-pocket court costs.

- 9.3. **Customer or End User Default.** The EDC may terminate its service to a Point of Delivery, upon reasonable notice, and remove its equipment in case of non-payment of charges applicable to that Point of Delivery.

- 9.4. **Limits on Liability.** The EDC shall not have any duty or liability to a Customer arising out of or related to a contract or other relationship between a Customer and an End User. (See Section 16.2.)

10. **Meters**

- 10.1. Procurement, Type, Protection. The Customer, or at its election, the EDC shall be the Meter Service Provider and shall provide, own and maintain any meter or meters required in the supply of service. The Meter Service Provider shall provide the types of meters meeting the architecture required for the supply of service and such other standards as established by the Commission.
  - 10.2. Location/Access. There shall be provided, free of expense to the Meter Service Provider, at a location which the Meter Service Provider will designate in writing upon request, outdoors at its option, a suitable place for the installation of the meter or meters and any other supply, protective or control equipment of the Meter Service Provider which may be required in the delivery of the electric service. The Meter Service Provider and EDC shall have access at all reasonable times for the purpose of installing, testing, inspecting, repairing, removing or changing any or all equipment belonging to the Meter Service Provider.
  - 10.3. Installation / Removal. Upon a minimum of 7 days notice to either the EDC or the Customer, meters may be installed or removed by the Meter Service Provider unless a non-standard location or configuration is required.
  - 10.4. Maintenance / Testing. The Meter Service Provider will make periodic tests and inspections of its meters in order to maintain them at a high standard of accuracy.
  - 10.5. Meter Tampering /Unauthorized Use/Diversion of Supply. In the event of the meters or other property being tampered or interfered with, the Customer being supplied through such equipment shall be responsible for the cost of any repairs or replacements required, as well as for the costs of inspections, investigations, and protective installations. The Customer shall also be responsible for any energy and demand being supplied through such equipment which the EDC may estimate is due for service used but not registered on the meter.
11. Meter Reading
- 11.1 The Meter Service Provider shall be responsible for reading of meters for billing and all other purposes.

- 11.2. Access to Meter. The Meter Service Provider and EDC shall have access to the premises of the End User at all reasonable times for the purpose of reading meters.
  - 11.3. Interval / Estimated Usage. Meters will be read at scheduled regular intervals of one month. Bills rendered in accordance with this Tariff shall be estimated for the amount of service supplied to the Point to Delivery where access to the meter is not available, and for installations at remote locations when warranted by the type of installation, regularity of usage or other circumstances. Where estimated bills are rendered, the Meter Service Provider shall be required to make an actual meter reading at least once every six months.
  - 11.4. Historic Meter/Billing Data. The Meter Service Provider shall be responsible for data conversions necessary for translating the reading data collection format into the universal exchange data format. The Meter Service Provider shall provide the data processing system necessary to support the on-line storage, maintenance, and accessibility of these data. The billing data shall be maintained for three years or such other period as required by the Commission.
12. Authorization to Provide End User Data to Customers
    - 12.1. Name, Address, Phone Number. Upon request by an End User, the EDC shall provide the End User's name, address and phone number to all Eligible Generation Suppliers. The EDC shall make available to Eligible Generation Suppliers, within 30 days and at cost, the names, addresses and phone numbers of End Users authorizing dissemination of such information.
    - 12.2. Billing History. Upon request, the EDC shall make available to the Customer within 30 days, at cost, the End User's billing history including historical monthly demand and energy usage.
    - 12.3. Load Patterns, Demand/Energy Data. The EDC or Meter Service Provider, whichever has and or retains the data, shall provide the End User's load pattern, demand and energy data, at cost, to the Customer within 30 days of a request by the Customer.
13. Ancillary Energy Delivery Services

- 13.1 Power Factor Correction Service. To the extent that the Customer does not correct its End Users' Power Factor to acceptable levels at an applicable Point of Delivery, the EDC shall supply the necessary reactive power and bill the Customer for power factor correction according to Schedule 4.
  - 13.2 Real Power Losses Compensation Service. Real Power Losses result from energy delivery at all voltage levels. The Customer shall be responsible for scheduling the delivery of sufficient amounts of power and energy to the EDC's system to cover all real power losses attributable to the EDC's service to the Customer. Procedures for determining the amount of losses attributable to the Customer are provided for in Schedule 5 to this Tariff.
14. Disconnection and Reconnection of Service. The physical disconnection and reconnection of service shall be performed by the EDC. However, the costs of disconnects and reconnects shall be borne by the Customer if the service was discontinued by reason or act of the Customer or the End User.
15. Load Shedding and Curtailments.
    - 15.1. Procedures. In order to maintain electric grid reliability, events may cause the need for load shedding or load curtailments. Policies for load shedding of the respective NERC region and/or Commission shall apply.
    - 15.2. Allocation of Curtailments. In the event that a curtailment of Energy Delivery Service is required to maintain reliable operation of the EDC's system, curtailments will be made on a non-discriminatory basis to those Points of Delivery that effectively relieve the constraint. All curtailments will be made on a non-discriminatory basis. The EDC or Host Control Area shall have the right to curtail delivery at its sole discretion, using Good Utility Practice, when an emergency or unforeseen conditions impairs or degrades the EDC's system or the regional transmission system.
16. Force Majeure and Indemnification
    - 16.1 Force Majeure. An event of Force Majeure means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or

flood, explosion, breakage or accident to machinery or equipment, any curtailment, order, regulation or restriction imposed by governmental, military or lawfully established civilian authorities, or any other cause beyond a party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing. Neither the Customer nor the EDC will be considered in default as to any obligation if prevented from fulfilling the obligation due to an event of Force Majeure.

- 16.2 Indemnification. The Customer shall at all times indemnify and hold harmless the EDC from any and all damages, losses or claims, including death and injury or damage to property, court costs, attorney fees and other claims by third parties arising from the EDC's performance on behalf of the Customer, except in cases of the EDC's negligence or intentional wrongdoing.

17. Dispute Resolution Procedures

- 17.1. Internal Dispute Resolution. Upon the submission of any complaint, representatives of the respective parties shall attempt resolution on an informal basis as promptly as practicable.
- 17.2. External Arbitration Procedure. Disputes between the EDC and Customers below a certain dollar amount may be well suited for use of an external arbitration procedure. A single neutral arbitrator appointed by the respective parties should be called within 10 days of the referral of the dispute to arbitration.
- 17.3. Arbitration Decisions and Costs. The respective parties should have contracts in place to allow both arbitration and mandatory compliance with decisions and costs. The decision of the arbitrator shall be final and binding upon the parties unless the decision itself, violated the standards set forth in the Federal Arbitration Act.

18. Standards of Conduct

- 18.1. Electric Distribution Company.  
(Tariff language reflecting Commission ordered standards of conduct.)

**Schedule 1**

**Energy Delivery Services**

Description of Service

Energy Delivery Services are those services necessary to convey electric power and energy for Customers from any point(s) of receipt available to the Electric Distribution Company under the applicable Open Access Transmission Tariff to the End User's or Host Control Area Point(s) of Delivery.

Compensation

Secondary Voltage, Single-Phase Service

Secondary Voltage, Three-Phase Service

Primary Voltage Service

## Schedule 2

### Revenue Cycle Services

#### Description of Service

The Revenue Cycle Services include the provision of meters, meter reading, billing and collections. The meter service includes the selection, installation, calibration, maintenance, testing and replacement of meters appropriate to the Customer's service requirements. The meter reading service includes the accurate reading, retaining and appropriate transfer of End User energy and demand usage data to the Customer or Electric Distribution Company or both. The billing service is the accurate computing and transmitting End User bills for services rendered by the Electric Distribution Company or the Customer or both. The billing service includes the retention of necessary records and providing appropriate access to billing information. The collection service is the receiving of customer payments and applying payment to the correct specific service. The collection service includes assessing late charges, interest penalties, warning notices and reconnection charges.

#### Compensation

Secondary Voltage, Single-Phase Service

Secondary Voltage, Three-Phase Service

Primary Voltage Service

**Schedule 3**  
**Competitive Transition Charge**

Description of Charge

The CTC shall apply during the transition period as follows:

## Schedule 4

### Power Factor Correction Service

#### Description of Service

Power Factor is the ratio of active power (kilowatts) to the apparent power (kilovolt-amperes) used by an electrical device in an AC circuit. When the active power consumed (watts) is divided by the product of voltage (volts) times current (amperes), and the quotient is multiplied by 100, the result equals the power factor. It is possible for a device to draw AC current without consuming energy. The power factor indicates how much of the total current is actually doing work.

Standard Power Factor values, based on measured demands, are as follows: i) for 0 kW to 185 kW then the standard power factor is 80 %; ii) for 186 kW to 2,500 kW then the standard power factor is 90 %; and iii) over 2,500 kW the standard power factor is 95 % or other standard as established by the EDC and approved by the Commission. Whenever the measured power factor of a Customer is less than the prescribed standard, the Customer's measured demand shall be increased by the ratio of the standard power factor to the measured power factor. The demand thus determined shall be used as a basis for calculating the Customer's billing demand.

#### Compensation

Secondary Voltage, Single-Phase Service

Secondary Voltage, Three-Phase Service

Primary Voltage Service

High Tension Service

## Schedule 5

### Real Power Losses Compensation Service

#### Description of Service

Energy is "lost" or consumed in the process of transmitting or moving the energy from the point of generation to the Point of Delivery. Real Power Losses that occur in the Transmission System are addressed in the FERC Open Access Transmission Tariffs. Real Power Losses that occur in the Distribution System need to be provided by the Customer.

The losses are included in the Aggregated Daily Load Curve as provided by the EDC or ISO.

#### Loss Factors

Secondary Voltage, Single-Phase Service

Secondary Voltage, Three-Phase Service

Primary Voltage Service

	A	B	C	D	E	F	G	H	I
1	Duquesne Light Company								
2	Energy Delivery Service Rate Design								
3									
4		Customer Related	Demand Related	Total					
5		Revenue	Revenue	Revenue					
6	Description	Requirements	Requirements	Requirements					
7									
8	Summary of Revenue Requirements:								
9									
10	Transmission	-	14,557,668	14,557,668					
11	Subtransmission	0	34,965,950	34,965,950					
12	Primary	19,161,111	45,259,044	64,420,155					
13	Secondary and Secondary Network	19,057,751	28,128,142	47,185,893					
14	Services	3,608,184	10,024,557	13,632,741					
15	Total	41,827,047	132,935,360	174,762,407					
16									
17			Secondary	Secondary		Subtrans.	Subtrans.	Transmissn.	Transmissn.
18			Non-Demand	Demand	Secondary	Trnsfrmd.	Untrnsfrmd.	Trnsfrmd.	Untrnsfrmd.
19		Total	Billing	Billing	Network	(Primary)			
20									
21	Customer Charge Components:								
22	Customer Related Primary	19,161,111	17,587,549	1,510,898	33,606	28,071	988	-	-
23	Total Number of Sub-Trans/Network Customers (#16)	678,509	622,788	53,502	1,190	994	35	-	-
24	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
25	Average Rate -- \$/Month		2.80	2.36	2.35	2.44	2.35	-	-
26									
27	Customer Related Secondary	19,057,751	17,457,680	1,600,071	-	-	-	-	-
28	Total Number of Secondary less Series Customers (#17)	637,239	583,737	53,502	-	-	-	-	-
29	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
30	Average Rate -- \$/Month		2.78	2.50	-	-	-	-	-
31									
32	Customer Related Services	3,608,184	3,273,081	335,103	-	-	-	-	-
33	Total Number of Secondary less St. Ltgs. (#18)	576,076	522,574	53,502	-	-	-	-	-
34	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
35	Average Rate -- \$/Month		0.52	0.52	-	-	-	-	-
36									
37	Cumulative Equivalent Customer Charge -- \$/Month		6.10	5.38	2.35	2.44	2.35	-	-

	A	B	C	D	E	F	G	H	I
1	Duquesne Light Company								
2	Energy Delivery Service Rate Design								
3									
38									
39									
40									
41			Secondary Non-Demand Billing	Secondary Demand Billing	Secondary Network	Subtrans. Trnsfrmd. (Primary)	Subtrans. Untrnsfrmd.	Transmsn. Trnsfrmd.	Transmsn. Untrnsfrmd.
42		Total							
43									
44	<b>Demand Charge Components:</b>								
45	Transmission Demand Related Revenue Requirements - \$ 000	14,557,668	5,203,521	4,293,042	1,105,778	3,581,080	374,247	150,115	1,495,756
46	Class Maximum Demands @ Generation Level (#3)	2,704,109	966,562	797,439	205,400	665,191	69,517	27,884	277,839
47	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
48	Energy Rate -- \$/kWh		0.00153						
49	Billing Demand -- kW	18,179,158		6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
50	Demand Rate -- \$/kW			0.64	0.45	0.44	0.44	0.39	0.65
51									
52	Subtransmission Demand Related Revenue Requirements - \$ 000	34,965,950	12,498,297	10,311,423	2,655,960	8,601,367	898,902		
53	Class Maximum Demands @ Generation Level (#6)	2,704,109	966,562	797,439	205,400	665,191	69,517		
54	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
55	Energy Rate -- \$/kWh		0.00368						
56	Billing Demand -- kW	18,179,158		6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
57	Demand Rate -- \$/kW			1.53	1.08	1.06	1.06		
58									
59	Primary Demand Related Revenue Requirements -- \$ 000	45,259,044	24,799,120	20,459,924					
60	Class Maximum Demands @ Generation Level (#8)	1,764,001	966,562	797,439					
61	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
62	Energy Rate -- \$/kWh		0.00731						
63	Billing Demand -- kW	18,179,158		6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
64	Demand Rate -- \$/kW			3.03					
65									
66	Secondary Demand Related Revenue Requirements -- \$ 000	28,128,142	15,412,459	12,715,683					
67	Class Maximum Demands @ Generation Level (#9)	1,764,001	966,562	797,439					
68	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
69	Energy Rate -- \$/kWh		0.00454						
70	Billing Demand -- kW	18,179,158		6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
71	Demand Rate -- \$/kW			1.88					
72									
73	Services Demand Related Revenue Requirements -- \$ 000.	10,024,557	5,257,253	2,193,251	564,709	1,823,644	185,699	75,671	693,474
74	Sum of NCP Individual Peaks (#4)	4,742,207	2,486,991	1,037,537	267,141	862,691	87,847	35,797	328,054
75	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
76	Energy Rate -- \$/kWh		0.00155						
77	Billing Demand -- kW	18,179,158		6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
78	Demand Rate -- \$/kW			0.32	0.23	0.22	0.22	0.20	0.30
79									
80	Cumulative Equivalent Demand Rate for Energy Delivery Services -- \$/kWh		0.01861						
81	Cumulative Demand Rate for Energy Delivery Services -- \$/kW			7.40	1.76	1.72	1.72	0.59	0.95

	A	B	C	D	E	F	G	H	I
1	<b>Duquesne Light Company</b>								
2	<b>Rate Design for Revenue Cycle Services</b>								
3									
4									
5	Total Revenue Requirements -- \$000	29,674,183							
6	Metering	7,251,008							
7	Meter Reading	-							
8	Customer Billing and Records	22,423,175							
9									
10									
11			<b>Secondary</b>	<b>Secondary</b>		<b>Subtrans.</b>	<b>Subtrans.</b>	<b>Transmssn.</b>	<b>Transmssn.</b>
12			<b>Non-Demand</b>	<b>Demand</b>	<b>Secondary</b>	<b>Trnsfrmd.</b>	<b>Untrnsfrmd.</b>	<b>Trnsfrmd.</b>	<b>Untrnsfrmd.</b>
13		<b>Total</b>	<b>Billing</b>	<b>Billing</b>	<b>Network</b>	<b>(Primary)</b>			
14									
15	<b>Customer Charge Components:</b>								
16	Meter Related Costs -- \$000	7,251,008	3,253,582	3,322,187	119,083	481,229	21,381	20,823	32,722
17	Weighted Meter Costs -- Allocator 40	1,170,005	524,990	536,060	19,215	77,650	3,450	3,360	5,280
18	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
19	Average Rate -- \$/Month		0.52	5.20	8.34	41.89	50.91	216.91	340.86
20									
21	Meter Reading Related Costs -- \$000	-							
22	Weighted Meter Reading Costs	-							
23	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
24	Average Rate -- \$/Month		-	-	-	-	-	-	-
25									
26	Customer Billing Related Costs -- \$000	22,423,175	16,541,267	5,509,185	141,330	213,106	9,881	3,073	5,334
27	Customer Service Costs	707,336	521,792	173,786	4,458	6,722	312	97	168
28	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
29	Average Rate -- \$/Month		2.63	8.62	9.90	18.55	23.53	32.01	55.56
30									
31	Cumulative Equivalent Customer Charge -- \$/Month		3.15	13.82	18.24	60.44	74.44	248.92	396.42
32									

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

SURREBUTTAL TESTIMONY OF

**PAUL D. REISING**

ON BEHALF OF  
ENRON POWER MARKETING INC.

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DECEMBER 11, 1997 **DOCKETED**  
JAN 15 1998

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2 A. I will respond to the rebuttal testimony of Duquesne Light Company (“Duquesne”)  
3 witness Mr. James Lahtinen, International Brotherhood of Electric Workers witness  
4 Mr. Timothy Moran and Office of Consumer Advocate witness Ms. Barbara Alexander.

5 Q. AT PAGE 28 OF HIS TESTIMONY, MR. LAHTINEN CRITICIZES YOUR  
6 RECOMMENDATION THAT ALL CUSTOMER ASSISTANCE AND  
7 INFORMATION EXPENSES SHOULD BE ASSIGNED TO THE PRODUCTION  
8 FUNCTION. DO YOU HAVE A RESPONSE?

9 A. Yes. Mr. Lahtinen suggests that it “stretches credulity that all of these costs should be  
10 assigned to the production function.” Clearly the same thing could be said with regard  
11 to Duquesne’s bold assumption that all of these costs support only the distribution  
12 function. To get beyond vague assertions regarding the proper functionalization of  
13 these expenses, I clearly stated in my direct testimony that “a portion of an EDC’s  
14 expenses for customer information and assistance might apply to the energy delivery  
15 system.” Further, I stated that “I have no information available to me to indicate what,  
16 if any, portion of Duquesne’s customer assistance and information expenses are related  
17 to distribution safety matters.” I recommended that “if Duquesne can demonstrate what  
18 portion of its customer information and assistance expense is directly attributable to  
19 energy delivery safety issues, my functional cost of service study easily can be  
20 amended.” Mr. Lahtinen says that an EDC should be able to recover the costs of  
21 “worthwhile” expenditures to promote the efficient use of electricity. I have no  
22 objection to expanding my earlier recommendation to cover expenses for activities  
23 (beyond line safety issues) that have a direct bearing on the efficiency of the  
24 distribution system. But costs vaguely related to “efficiency” should not be assigned

1 ipso facto to distribution. Such treatment could give the EDC license to promote itself  
2 or its energy supply affiliates. More importantly, Mr. Lahtinen's testimony provides no  
3 new information necessary to make an objective assessment of the proper  
4 functionalization of the elements of these expense accounts. Because there is still no  
5 new information, my recommendation remains the same -- none of these expenses  
6 should be assigned to the distribution function.

7 My comments regarding customer information and assistance apply equally as  
8 well to sales expenses. To the extent that it can be demonstrated that any elements of  
9 Duquesne's sales expenses relate to the support of the distribution system and  
10 distribution services, then such expenses could remain with the distribution function. I  
11 seriously doubt that is the case. Any such activities not shown to be directly required  
12 in support of Duquesne's distribution system should either be eliminated or assigned to  
13 non-regulated business units, for example, appliance mechanizing and repair or energy  
14 supply marketing.

15 **Q. AT PAGE 29-30 OF HIS TESTIMONY, MR. LAHTINEN COMPLAINS THAT**  
16 **DUQUESNE, AS PROVIDER OF LAST RESORT, WILL BEAR MOST IF NOT**  
17 **ALL OF THE UNCOLLECTIBLE ACCOUNTS EXPENSES IT INCURRED IN**  
18 **1996. DO YOU HAVE ANY COMMENTS IN RESPONSE TO THAT**  
19 **TESTIMONY?**

20 **A.** I do not see how that explanation justifies the assignment of 100% of uncollectible  
21 accounts expense to the distribution function. In my opinion, the EDC should recover  
22 its uncollectible accounts expenses for generation in the margin that it earns on the  
23 energy its supplies to default customers. Uncollectible accounts expense attributable to  
24 transmission and distribution service should be recovered in their respective charges for

1 such services.

2 **Q. MR. LAHTINEN COMMENTS ON THE MECHANICS OF YOUR COST OF**  
3 **SERVICE STUDY. WHAT IS YOUR RESPONSE?**

4 A. At pages 30-31 of his testimony, Mr. Lahtinen complains that my cost of service study  
5 contains "circular references." The spreadsheets I used to generate my functional cost  
6 of service study and other exhibits use Excel version 5.0. The cost of service study  
7 requires an interactive solution that can easily be accomplished using an interactive  
8 manual calculation which is one of the options available using the Excel software. I  
9 suspect that Mr. Lahtinen's Lotus 1-2-3 can accomplish the same thing. Circular  
10 references are eliminated in this manner. This is a standard approach that is routinely  
11 used in complex models, such as the cost of service study I completed in this and five  
12 other restructuring proceedings before the Pennsylvania PUC. If a manual, iterative  
13 calculation technique is not used, circular references will be generated because some  
14 elements of revenue requirements are allocated on the basis of other allocations which  
15 take place in later sections of the model. This happens, for example, with gross  
16 receipts taxes that are proportional to and should be allocated on the basis of total  
17 revenue requirements. An iterative solution can handle this situation.

18 I would also point out that Duquesne received both a hard copy of the details  
19 of my functional cost of service study and an electronic version. If Mr. Lahtinen had a  
20 problem figuring out how to eliminate "circular references" when he attempted to run  
21 my model, that issue could have been dealt with through discovery or other protocol  
22 well before Mr. Lahtinen's rebuttal testimony was filed.

1 **Q. THE NEXT POINT OF MR. LAHTINEN'S TESTIMONY RELATES TO YOUR**  
2 **TREATMENT OF REVENUES FOR RATE CLASS GL AND ALLOCATION OF**  
3 **COSTS TO A FERC JURISDICTIONAL CUSTOMER. WHAT IS YOUR**  
4 **RESPONSE?**

5 A. Based on Mr. Lahtinen's testimony, I have reexamined my cost of service model and  
6 determined that I made an error in the entry of total 1996 revenues and in the data used  
7 for certain of the allocation factors which were subsequently applied to the allocation of  
8 administrative and general expenses, specifically, internal allocation factors C105, C106  
9 and C107. I also discovered an error in the manner in which accumulated depreciation  
10 was computed for the Pennsylvania PUC jurisdictional total. I have corrected these  
11 errors which I believe addresses Mr. Lahtinen concerns regarding the allocation of costs  
12 to the wholesale customer and the \$29 million shortfall in revenues. I have prepared a  
13 revised functional cost of service summary which is appended to this testimony and  
14 Exhibit 2.1, PDR-8.

15 **Q. DO THESE CORRECTIONS AFFECT ANY OF THE OTHER EXHIBITS**  
16 **INCLUDED WITH YOUR DIRECT TESTIMONY?**

17 A. Yes. Changes made to the functional cost of service study also affect the design of  
18 class-based T&D charges in my Exhibit 2, PDR-4 and the design of voltage-  
19 differentiated rates in my Exhibit 2, PDR-5. Revised versions of these rate design  
20 details are presented in Exhibits 2.1, PDR-9 and PDR-10.

21 **Q. AT PAGE 32 OF MR. LAHTINEN'S TESTIMONY, HE TAKES ISSUE WITH**  
22 **YOUR PROPOSAL FOR VOLTAGE-DIFFERENTIATED RATES, STATING**  
23 **THAT THEY WILL CAUSE COST SHIFTING TO OCCUR. DO YOU HAVE A**  
24 **RESPONSE?**

25 A. Yes, I do. I stated at page 25 of my testimony that the voltage-differentiated rate  
26 design was intended to be used in conjunction with the Distribution Services Tariff

1 (“DST”) (Exhibit 2, PDR-6). Under the DST, the “customer” is the Electric Generation  
2 Supplier (“EGS”), acting as agent for end-users. In that circumstance, historic  
3 customer class distinctions have little meaning. Where the EGS is not acting as agent  
4 for the end user and for default customers, Duquesne’s class-based unbundled tariff  
5 would apply. Where the DST applies, what is *important* is that Duquesne as EDC is  
6 appropriately compensated in aggregate by the EGS for distribution services rendered.  
7 I believe the voltage-differentiated rate mechanism presented in Exhibit 2, PDR-7  
8 (revised in Exhibit 2.1, PDR-10), is a simple, straightforward means to accomplish that  
9 objective. I pointed out some of the advantages of this approach in my direct  
10 testimony.

11 **Q. AT PAGES 33 AND 34 OF HIS TESTIMONY MR. LAHTINEN USES AN**  
12 **ILLUSTRATION OF HOW UNFAIR IT WOULD BE NOT TO CHARGE A**  
13 **CUSTOMER TAKING SERVICE AT TRANSMISSION VOLTAGE FOR**  
14 **SECONDARY AND PRIMARY VOLTAGE FACILITIES. DO YOU AGREE?**

15 A. No. I find Mr. Lahtinen’s illustration to be astounding. Allocating secondary voltage  
16 and primary voltage facilities to transmission voltage customers cannot be justified on  
17 the basis of “cost of service principles” as he asserts. Such a notion is inconsistent with  
18 any cost of service principles I’ve ever heard of. Either these customers should not be  
19 in the same rate class (my voltage-differentiated rate proposal fixes this) or, if these  
20 two customers are part of the same rate class, there should be a credit to the  
21 transmission customer for the cost avoided by the utility for not having to build  
22 transmission-to-primary voltage substations, primary voltage lines, line transformers,  
23 secondary voltage lines and service drops.

1 Q. MR. LAHTINEN ALSO RAISES A CONCERN AT THE BOTTOM OF PAGE 32  
2 OF HIS TESTIMONY REGARDING THE TREATMENT OF GL CLASS PEAK  
3 DEMANDS AS SUBTRANSMISSION DEMANDS RATHER THAN PRIMARY  
4 DEMANDS. IS THAT A PROBLEM?

5 A. No. If an adjustment is needed to put customer demands and billing determinants in  
6 the correct voltage category, that can be accomplished in the compliance filing made in  
7 this proceeding. The data I had available for this purpose was not as clear in that  
8 regard as I would have preferred, but that can be taken care of in the compliance phase  
9 of this case. What is important is the concept and the general methodology illustrated  
10 in my exhibits.

11 Q. AT PAGE 35, MR. LAHTINEN BEGINS A DISCUSSION REGARDING THE  
12 COMPUTATION OF REVENUE REQUIREMENTS AND UNBUNDLED RATES  
13 ON THE BASIS OF REALIZED RETURNS. DO YOU HAVE ANY  
14 COMMENTS IN THAT REGARD?

15 A. Yes. Duquesne's application of a rate of return higher than the test period rate of  
16 return is a request for a rate increase. It is my understanding that a request for a rate  
17 increase is beyond the scope of this proceeding. Further, if there is to be a revenue  
18 increase for Duquesne as a result of an increase in test year rate of return, then cost of  
19 capital issues should be addressed fully with all parties having the opportunity to submit  
20 evidence regarding the appropriate capital structure and return on equity.

21 Q. AT PAGE 4 OF MR. MORAN'S REBUTTAL TESTIMONY HE STATES SAFETY  
22 CONCERNS WITH REGARD TO THE DISTRIBUTION SERVICES TARIFF (DST).  
23 SPECIFICALLY, HE STATES "IF A CUSTOMER GIVES NOTICE TO ITS  
24 SUPPLIER OF A DANGEROUS CONDITION, THERE IS A VERY REAL RISK  
25 THAT THE UTILITY ITSELF MIGHT NOT BE NOTIFIED IN A TIMELY  
26 FASHION." IS THIS TYPE OF ISSUE ADDRESSED IN THE DST?

27 A. Yes. For example, the final sentence in Section 2.3 of the DST states "The Customer shall  
28 require that the End User give notice of any changes that might affect safety of personnel

1 or property of the EDC.” In addition, Section 8.1 states “Cooperation is a necessary  
2 condition between the EDC, Customers and other parties associated with supplying electric  
3 service to End Users.” The DST is designed to allow the flow of information in a timely  
4 and responsive manner involving safety and reliability issues.

5 **Q. AT PAGE 4 OF MR. MORAN’S REBUTTAL TESTIMONY HE STATES “IF A**  
6 **REAL CUSTOMER FAILS TO KEEP ITS PROPERTY SAFE, THE**  
7 **DISTRIBUTION UTILITY DOESN’T KNOW WHETHER TO CONTACT THE**  
8 **SUPPLIER OR THE ACTUAL CUSTOMER”. IS THIS ISSUE ADDRESSED IN**  
9 **THE DST?**

10 A. Yes, the DST allows the option of the Supplier being the agent for the End User, so the  
11 EDC can contact the Supplier (Customer) whenever there are questions.

12 **Q. AT PAGE 5 OF MR. MORAN’S REBUTTAL TESTIMONY HE STATES**  
13 **“ALLOWING NON-UTILITIES TO HAVE ACCESS TO THE UTILITY’S**  
14 **FACILITIES MAKES IT MORE LIKELY THAT A DANGEROUS CONDITION**  
15 **WILL GO UNCORRECTED OR UNNOTICED FOR AN EXTENDED PERIOD OF**  
16 **TIME”. DO YOU HAVE A RESPONSE?**

17 A. Yes, I do. Currently End Users often have access to “utility’s facilities” that are on the  
18 premises of the End User. I know of no reasons why there should be an increase in  
19 dangerous conditions in the future environment with revenue cycle services competition  
20 than currently exists in the monopoly environment.

21 **Q. ON PAGE 5, LINES 17 - 18 MR. MORAN STATES “ENRON PROPOSES THAT**  
22 **THE UTILITY HAS TO STAND READY TO SUPPLY ALL OF THESE**  
23 **SERVICES,...” RELATED TO INSTALLING, REPAIRING AND READING**  
24 **METERS. DOES THE DST OR DID YOU PROPOSE THAT STATEMENT?**

25 A. No. I did not make that proposal.

26 **Q. DO YOU AGREE WITH THE SUMMARIZATION OF MR. MORAN THAT THE**  
27 **DST “WOULD INCREASE COSTS AND DECREASE SAFETY AND RELIABILITY**  
28 **FOR EVERYONE INVOLVED?”**

29 A. No, I do not. I believe the innovation with choice of Suppliers and national economies of  
30 scale and scope will decrease costs and that safety and reliability will not be decreased.

1 Q. **WHAT ARE YOUR COMMENTS IN RESPONSE TO OCA WITNESS MS.**  
2 **ALEXANDER?**

3 A. I have several comments. On page 9, I agree with her comment that “moving the dialogue  
4 forward in this area” (supplier-only bill option) is helpful. However, the Distribution  
5 Services Tariff does more than move the dialogue forward, it provides an option for end  
6 users to choose to have “one-stop” services. The end user chooses if and when to select  
7 this option. In today’s paradigm there is no choice.

8 I believe there is a need for the Distribution Services Pro Forma Tariff and the  
9 Supplier Pro Forma Tariff.

10 Q. **DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

11 A. Yes, it does.

	A	B	C	D	E	F	G	H	I	J
1	Duquesne Light Company									
2	Cost of Service									
3	Test Period - 12 Months Ended December 31, 1996									
4										
5										
6		Total Utility	FERC Juris.	PA PUC Juris.	Production Demand	Production Energy	Transmission	Distribution Demand	Distribution Customer	Customer Service
7	Revenues -- \$000									
8	Revenue Required from Rates	1,086,507	1,088	1,085,418	465,948	338,288	39,126	153,890	65,741	22,425
9	Other Revenues	74,581	63	74,518	44,787	7,134	8,493	10,165	3,939	0
10	Total Revenue	1,161,088	1,151	1,159,936	510,735	345,421	47,620	164,055	69,680	22,425
11										
12	Operating Expenses -- \$000									
13	Operation & Maintenance Expense	556,132	667	555,465	164,909	283,701	13,850	43,256	26,025	21,723
14	Depreciation and Amortization	289,331	252	289,079	207,772	31,821	6,588	30,110	12,788	0
15	Taxes Other Than Current Income Taxes	(26,539)	(33)	(26,505)	(34,665)	(5,582)	2,838	8,315	2,588	0
16	Income Taxes	107,340	81	107,259	55,958	8,913	8,558	24,362	9,448	0
17	Gross Receipts Tax	33,998	34	33,964	14,580	10,585	1,224	4,815	2,057	702
18	Total Expenses	960,263	1,002	959,261	408,555	329,439	33,059	112,878	52,906	22,425
19										
20	Net Utility Income - \$000	200,825	150	200,675	102,181	15,983	14,561	51,177	16,774	0
21										
22	Rate Base -- \$000	2,368,920	1,767	2,367,153	1,205,316	188,533	171,759	603,678	197,867	0
23										
24	Rate of Return	8.48%	8.48%	8.48%	8.48%	8.48%	8.48%	8.48%	8.48%	8.48%
25										

	A	H	L	M	N	O	P	Q
1	Duquesne Light Company							
2	Cost of Service							
3	Test Period - 12 Months Ended December 31, 1996							
4								
5								
6		Total						
7		Distribution						
8		Demand	Transmission	Network	Sub-Transmission	Primary	Secondary	Services
9	Revenues -- \$000							
10	Revenue Required from Rates	153,890	16,432	19,033	40,945	53,585	13,005	10,890
11	Other Revenues	10,165	1,173	1,435	2,578	3,242	809	926
12	Total Revenue	164,055	17,605	20,469	43,523	56,827	13,815	11,816
13	Operating Expenses -- \$000							
14	Operation & Maintenance Expense	45,256	3,739	3,583	13,279	18,878	4,458	1,319
15	Depreciation and Amortization	30,110	3,556	4,178	7,741	9,580	2,406	2,648
16	Taxes Other Than Current Income Taxes	8,315	979	1,220	2,100	2,642	639	735
17	Income Taxes	24,382	2,815	3,443	6,184	7,777	1,941	2,222
18	Gross Receipts Tax	4,815	514	596	1,281	1,677	407	341
19	Total Expenses	112,878	11,603	13,020	30,586	40,553	9,852	7,265
20	Net Utility Income - \$000	51,177	6,002	7,449	12,937	16,274	3,963	4,552
21								
22	Rate Base -- \$000	603,678	70,797	87,869	152,603	191,966	46,748	53,694
23								
24	Rate of Return	8.48%	8.48%	8.48%	8.48%	8.48%	8.48%	8.48%

	A	I	S	T	U	V	W	X	Y
1	Duquesne Light Company								
2	Cost of Service								
3	Test Period - 12 Months Ended December 31, 1996								
4									
5									
6		Total Distribution Customer	Network	Sub-Transmission	Primary	Secondary	Services	Meters	Lighting
7	Revenues -- \$000								
8	Revenue Required from Rates	65,741	3,420	0	23,178	18,295	5,619	8,918	6,312
9	Other Revenues	3,939	255	0	1,310	1,323	0	682	369
10	Total Revenue	69,680	3,675	0	24,487	19,618	5,620	9,600	6,681
11									
12	Operating Expenses -- \$000								
13	Operation & Maintenance Expense	26,025	660	0	9,447	4,942	5,432	3,828	1,716
14	Depreciation and Amortization	12,788	763	0	3,987	4,716	3	700	2,619
15	Taxes Other Than Current Income Taxes	2,588	216	0	989	820	1	414	148
16	Income Taxes	9,448	612	0	3,141	3,173	1	1,637	885
17	Gross Receipts Tax	2,057	107	0	725	572	176	279	197
18	Total Expenses	52,906	2,357	0	18,290	14,223	5,613	6,858	5,565
19									
20	Net Utility Income - \$000	16,774	1,318	0	6,198	5,395	6	2,743	1,115
21									
22	Rate Base -- \$000	197,867	15,541	0	73,108	63,636	74	32,351	13,156
23									
24	Rate of Return	8.48%	8.48%		8.48%	8.48%	8.48%	8.48%	8.48%

	A	J	AA	AB	AC	AD	AE
1	Duquesne Light Company						
2	Cost of Service						
3	Test Period - 12 Months Ended December 31, 1996						
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

	Total Customer Service	Meter Reading	Billing and Collections	Uncollectible Accounts	Customer Service & Information	Sales
7	Revenues -- \$000					
8	22,425	0	22,425	0	0	0
9	0	0	0	0	0	0
10	22,425	0	22,425	0	0	0
11	Operating Expenses -- \$000					
13	21,723	0	21,723	0	0	0
14	0	0	0	0	0	0
15	0	0	0	0	0	0
16	0	0	0	0	0	0
17	702	0	702	0	0	0
18	22,425	0	22,425	0	0	0
20	0	0	0	0	0	0
22	0	0	0	0	0	0
24	8.48%		8.48%			

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
1	Duquesne Light Company															
2	EMPI Class-Based Rate Design															
3	COMPARISON OF CURRENT BUNDLED AND PROPOSED UNBUNDLED USAGE RATES (1)															
4																
5																
6																
7	Unbundled Usage Delivery Charges As Proposed by EPMI															
8																
9																
10	Rate		Billing Determinants			Current		Transmission	Ancillary	Energy	Energy	Revenue	Revenue	Total	Total	
11						Bundled		T	Services	Delivery	Delivery	Cycle	Cycle	T&D	Revenue	
12						Usage				Services	Services	Services	Services	Related	Market	
13			Bills	kW	kWh x 1000	Rates (\$)				Fixed	Variable	Fixed	Variable	Charges	CCC +	
14	RS		5,955,305		2,977,269	\$ 6.42		\$ 0.0012	\$ 0.0018	\$ 4.91	\$ 0.0187	\$ 1.47		\$ 0.0056		
15		All kWh			2,977,269	\$ 0.1166		\$ 0.0032	\$ 0.0025	\$	\$	\$	\$	\$	\$	\$
16		Total Billing Units	5,955,305		2,977,269	\$ 385,382,624		\$ 9,527,261	\$ 5,359,084	\$ 29,240,548	\$ 55,674,930	\$ 8,754,298	\$ 16,672,706	\$ 121,228,828	\$ 254,109,923	
17	RH		272,708			\$ 6.42				\$ 4.91		\$ 1.47				
18	Summer	First 500 kWh		155,535	155,535,000	\$ 0.1166		\$ 0.0032	\$ 0.0025	\$ 0.0247			\$ 0.0045			
19		Excess kWh				\$ 0.1166		\$ 0.0032	\$ 0.0025	\$ 0.0247			\$ 0.0045			
20	Winter	First 500 kWh				\$ 0.1166		\$ 0.0032	\$ 0.0025	\$ 0.0247			\$ 0.0045			
21		Excess kWh		153,666	153,666,000	\$ 0.0449		\$ 0.0021	\$ 0.0016	\$ 0.0140			\$ 0.0030			
22		Total Billing Units	272,708		309,201	\$ 26,785,770		\$ 820,411	\$ 634,703	\$ 1,338,996	\$ 5,993,039	\$ 400,881	\$ 1,160,906	\$ 10,348,935	\$ 15,902,410	
23	RA		33,516			\$ 6.42				\$ 4.91		\$ 1.47				
24	Summer	First 500 kWh				\$ 0.1166		\$ 0.0036	\$ 0.0021	\$ 0.0209			\$ 0.0047			
25		Excess kWh		24,159	24,159,000	\$ 0.1166		\$ 0.0036	\$ 0.0021	\$ 0.0209			\$ 0.0047			
26	Winter	First 500 kWh				\$ 0.1166		\$ 0.0036	\$ 0.0021	\$ 0.0209			\$ 0.0047			
27		Excess kWh		9,689	9,689,000	\$ 0.0449		\$ 0.0024	\$ 0.0014	\$ 0.0088			\$ 0.0031			
28		Total Billing Units	33,516		33,848	\$ 3,467,148		\$ 110,726	\$ 64,299	\$ 164,564	\$ 390,186	\$ 49,269	\$ 143,583	\$ 1,122,126	\$ 2,278,463	
29	GS/GM		616,548			\$ 9.13				\$ 8.39		\$ 0.68				
30		First 5 kW				\$ 0										
31		Additional kW		6,977,437	6,977,437	\$ 18.34		\$ 0.76	\$ 0.33	\$ 3.23			\$ 0.29			
32		First 550 kWh		211,324	211,324,000	\$ 0.1397		\$ 0.0043	\$ 0.0019	\$ 0.0180			\$ 0.0016			
33		Next 750 kWh		212,613	212,613,000	\$ 0.1309		\$ 0.0039	\$ 0.0017	\$ 0.0165			\$ 0.0015			
34		Additional kWh		2,197,209	2,197,209,000	\$ 0.0380		\$ 0.0016	\$ 0.0007	\$ 0.0067			\$ 0.0006			
35		Total Billing Units	616,548	6,977,437	2,621,146	\$ 274,442,224		\$ 10,556,270	\$ 4,603,558	\$ 5,172,838	\$ 44,370,368	\$ 419,253	\$ 3,998,820	\$ 69,321,107	\$ 209,164,438	
36	GMH		40,284			\$ 9.13				\$ 8.39		\$ 0.68				
37	Summer	First 5 kW				\$ 0										
38		Additional kW		288,982	288,982	\$ 18.34		\$ 0.81	\$ 0.43	\$ 4.58			\$ 0.21			
39		First 550 kWh		6,698	6,698,000	\$ 0.1397		\$ 0.0045	\$ 0.0024	\$ 0.0256			\$ 0.0012			
40		Next 750 kWh		6,647	6,647,000	\$ 0.1309		\$ 0.0041	\$ 0.0022	\$ 0.0234			\$ 0.0011			
41		Additional kWh		82,118	82,118,000	\$ 0.0380		\$ 0.0017	\$ 0.0009	\$ 0.0097			\$ 0.0005			
42	Winter	First Block		116,385	116,385,000	\$ 0.1146		\$ 0.0034	\$ 0.0018	\$ 0.0194			\$ 0.0009			
43		Additional kWh		116,407	116,407,000	\$ 0.0380		\$ 0.0017	\$ 0.0009	\$ 0.0094			\$ 0.0005			
44		Total Billing Units	40,284	288,982	328,255	\$ 28,355,197		\$ 1,024,671	\$ 543,126	\$ 337,983	\$ 5,799,186	\$ 27,393	\$ 280,045	\$ 8,012,403	\$ 19,550,257	
45	GLH		843			\$ 9.13				\$ 8.39000		\$ 0.68000				
46	Summer	First 300 kW		426	426	\$ 5,527.00		\$ 553.26	\$ 233.61	\$ 1,381.27		\$ 6.15				
47		Additional kW		215,770	215,770	\$ 13.98		\$ 0.70	\$ 0.30	\$ 1.75		\$ 0.01				
48		All kWh		151,225	151,225,000	\$ 0.0380		\$ 0.0019	\$ 0.0008	\$ 0.0049		\$ 0.0000				
49	Winter	First Block		103,575	103,575,000	\$ 0.1146		\$ 0.0039	\$ 0.0016	\$ 0.0097		\$ 0.0000				
50		Additional kWh		200,420	200,420,000	\$ 0.0380		\$ 0.0019	\$ 0.0008	\$ 0.0050		\$ 0.0000				
51		Total Billing Units	843	216,196	455,220	\$ 30,610,868		\$ 1,458,796	\$ 611,285	\$ 7,073	\$ 3,713,799	\$ 573	\$ 4,778	\$ 5,796,303	\$ 23,990,246	
52	GL			7,668	7,668	\$ 5,527.00		\$ 358.77	\$ 152.87	\$ 967.43		\$ 4.41				
53		Additional kW		4,324,871	4,324,871	\$ 13.98		\$ 0.45	\$ 0.19	\$ 1.22		\$ 0.01				
54		All kWh		2,884,888	2,884,888,000	\$ 0.0380		\$ 0.0013	\$ 0.0006	\$ 0.0033		\$ 0.0000				
55		Total Billing Units		4,332,539	2,884,888	\$ 212,468,477		\$ 8,464,894	\$ 3,737,840	\$ -	\$ 22,232,026	\$ -	\$ 77,065	\$ 34,511,825	\$ 170,363,866	
56	L			312	312	\$ 71,289.00		\$ 5,115.35	\$ 2,017.61	\$ 7,137.78		\$ 8.94				
57		Next 10,000 kW		1,138,342	1,138,342	\$ 11.45		\$ 0.41	\$ 0.16	\$ 0.57		\$ -				
58		Next 25,000 kW		21,725	21,725	\$ 11.13		\$ 0.3991	\$ 0.1575	\$ 0.5572		\$ 0.0007				

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	Duquesne Light Company														
2	EMPI Class-Based Rate Design														
3	COMPARISON OF CURRENT BUNDLED AND PROPOSED UNBUNDLED USAGE RATES (1)														
4															
5															
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102	(1) Does not include customer charges and customer-specific fixed CTCs.														
103	(2) Includes adjustment for STAS roll-in.														
104	(3) Actual CTC charges and customer generation charges/credits will depend on annual market sale of firm power.														
105	(4) The ECR roll-in is included in both bundled and unbundled rates. Existing credits are maintained in negotiated HVPS contracts.														
106	(5) Rate PAL is based on Rate SE as there were no customers on Rate PAL in 1996.														

	A	B	C	D	E	F	G	H	I
1	Duquesne Light Company								
2	Energy Delivery Service Rate Design								
3									
4		Customer Related	Demand Related	Total					
5		Revenue	Revenue	Revenue					
6	Description	Requirements	Requirements	Requirements					
7									
8	Summary of Revenue Requirements:								
9									
10	Transmission	-	16,431,518	16,431,518					
11	Subtransmission	0	40,944,529	40,944,529					
12	Primary	23,177,841	53,584,749	76,762,590					
13	Secondary and Secondary Network	21,714,448	32,038,918	53,753,366					
14	Services	5,619,246	10,890,181	16,509,427					
15	Total	50,511,534	153,889,895	204,401,429					
16									
17			Secondary	Secondary					
18			Non-Demand	Demand					
19		Total	Billing	Billing	Secondary	Subtrans.	Subtrans.	Transmissn.	Transmissn.
20					Network	Trnsfrmd.	Untrnsfrmd.	Trnsfrmd.	Untrnsfrmd.
21	Customer Charge Components:								
22	Customer Related Primary	23,177,841	21,274,414	1,822,626	40,650	33,955	1,196	-	-
23	Total Number of Sub-Trans/Network Customers (#16)	678,509	622,788	53,502	1,190	994	35	-	-
24	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
25	Average Rate -- \$/Month		3.39	2.86	2.85	2.96	2.85	-	-
26									
27	Customer Related Secondary	21,714,448	19,891,323	1,823,125	-	-	-	-	-
28	Total Number of Secondary less Series Customers (#17)	637,239	583,737	53,502	-	-	-	-	-
29	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
30	Average Rate -- \$/Month		3.17	2.85	-	-	-	-	-
31									
32	Customer Related Services	5,619,246	5,097,369	521,877	-	-	-	-	-
33	Total Number of Secondary less St. Ligs. (#18)	576,076	522,574	53,502	-	-	-	-	-
34	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
35	Average Rate -- \$/Month		0.81	0.82	-	-	-	-	-
36									
37	Cumulative Equivalent Customer Charge -- \$/Month		7.37	6.53	2.85	2.96	2.85	-	-

	A	B	C	D	E	F	G	H	I
1	Duquesne Light Company								
2	Energy Delivery Service Rate Design								
3									
38									
39									
40			Secondary	Secondary	Secondary	Subtrans.	Subtrans.	Transmsn.	Transmsn.
41			Non-Demand	Demand	Network	Trnsfrmd.	Untrnsfrmd.	Trnsfrmd.	Untrnsfrmd.
42			Billing	Billing		(Primary)			
43		Total							
44	Demand Charge Components:								
45	Transmission Demand Related Revenue Requirements - \$ 000	16,431,518	5,873,314	4,845,638	1,248,113	4,042,033	422,420	169,437	1,688,289
46	Class Maximum Demands @ Generation Level (#3)	2,704,109	966,562	797,439	205,400	665,191	69,517	27,884	277,839
47	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
48	Energy Rate -- \$/kWh		0.00173	-	-	-	-	-	-
49	Billing Demand -- kW	18,179,158	-	6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
50	Demand Rate -- \$/kW		-	0.72	0.51	0.50	0.50	0.45	0.73
51									
52	Subtransmission Demand Related Revenue Requirements - \$ 000	40,944,529	14,635,292	12,074,500	3,110,084	10,072,054	1,052,598	-	-
53	Class Maximum Demands @ Generation Level (#5)	2,704,109	966,562	797,439	205,400	665,191	69,517	-	-
54	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
55	Energy Rate -- \$/kWh		0.00431	-	-	-	-	-	-
56	Billing Demand -- kW	18,179,158	-	6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
57	Demand Rate -- \$/kW		-	1.79	1.27	1.24	1.24	-	-
58									
59	Primary Demand Related Revenue Requirements -- \$ 000	53,584,749	29,361,084	24,223,665	-	-	-	-	-
60	Class Maximum Demands @ Generation Level (#8)	1,764,001	966,562	797,439	-	-	-	-	-
61	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
62	Energy Rate -- \$/kWh		0.00865	-	-	-	-	-	-
63	Billing Demand -- kW	18,179,158	-	6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
64	Demand Rate -- \$/kW		-	3.59	-	-	-	-	-
65									
66	Secondary Demand Related Revenue Requirements -- \$ 000	32,038,918	17,555,319	14,483,599	-	-	-	-	-
67	Class Maximum Demands @ Generation Level (#9)	1,764,001	966,562	797,439	-	-	-	-	-
68	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
69	Energy Rate -- \$/kWh		0.00517	-	-	-	-	-	-
70	Billing Demand -- kW	18,179,158	-	6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
71	Demand Rate -- \$/kW		-	2.14	-	-	-	-	-
72									
73	Services Demand Related Revenue Requirements -- \$ 000	10,890,181	5,711,219	2,382,639	613,472	1,981,117	201,735	82,205	753,356
74	Sum of NCP Individual Peaks (#4)	4,742,207	2,486,991	1,037,537	267,141	862,691	87,847	35,797	328,054
75	Billing Energy at Meters -- kWh	3,392,709	3,392,709						
76	Energy Rate -- \$/kWh		0.00168	-	-	-	-	-	-
77	Billing Demand -- kW	18,179,158	-	6,755,322	2,456,570	8,116,221	851,046	380,672	2,313,776
78	Demand Rate -- \$/kW		-	0.35	0.25	0.24	0.24	0.21	0.33
79									
80	Cumulative Equivalent Demand Rate for Energy Delivery Services -- \$/kWh		0.02154						
81	Cumulative Demand Rate for Energy Delivery Services -- \$/kW			8.59	2.03	1.98	1.98	0.67	1.06

	A	B	C	D	E	F	G	H	I
1	<b>Duquesne Light Company</b>								
2	<b>Rate Design for Revenue Cycle Services</b>								
3									
4									
5	Total Revenue Requirements -- \$000	31,342,806							
6	Metering	8,917,967							
7	Meter Reading	-							
8	Customer Billing and Records	22,424,839							
9									
10									
11			Secondary	Secondary		Subtrans.			
12			Non-Demand	Demand	Secondary	Trnsfrmd.	Subtrans.	Transmsn.	Transmsn.
13		Total	Billing	Billing	Network	(Primary)	Untrnsfrmd.	Trnsfrmd.	Untrnsfrmd.
14									
15	<b>Customer Charge Components:</b>								
16	Meter Related Costs -- \$000	8,917,967	4,001,558	4,085,936	146,460	591,861	26,296	25,610	40,245
17	Weighted Meter Costs -- Allocator 40	1,170,005	524,990	536,060	19,215	77,650	3,450	3,360	5,280
18	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
19	Average Rate -- \$/Month		0.64	6.39	10.26	51.52	62.61	266.78	419.22
20									
21	Meter Reading Related Costs -- \$000	-							
22	Weighted Meter Reading Costs	-							
23	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
24	Average Rate -- \$/Month		-	-	-	-	-	-	-
25									
26	Customer Billing Related Costs -- \$000	22,424,839	16,542,494	5,509,593	141,340	213,122	9,882	3,073	5,335
27	Customer Service Costs	707,336	521,792	173,786	4,458	6,722	312	97	168
28	Total Number of Customer Bills	6,947,690	6,281,999	639,312	14,280	11,487	420	96	96
29	Average Rate -- \$/Month		2.63	8.62	9.90	18.55	23.53	32.01	55.57
30									
31	Cumulative Equivalent Customer Charge -- \$/Month		3.27	15.01	20.16	70.07	86.14	298.79	474.79

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

**JEFFREY A. BROWN**

ON BEHALF OF  
ENRON POWER MARKETING INC.

DOCKET NO. R-00974104

RE: APPLICATION OF DUQUESNE LIGHT  
COMPANY FOR APPROVAL OF  
RESTRUCTURING PLAN

NOVEMBER 7, 1997

1     **Q.     PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND TITLE.**

2     A.     My name is Jeffrey A. Brown. I am Director of Government Affairs for Enron Corp.,  
3           400 Professional Park Drive, Goodlettsville, Tennessee 37072, where my primary role is  
4           as a consultant in the areas of unbundled and competitive metering, billing and customer  
5           care. For the purposes of this testimony, I am representing Enron Power Marketing, Inc.  
6           ("EPMI").

7     **Q.     PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL AND**  
8     **YOUR EXPERIENCE IN THE ELECTRIC UTILITY INDUSTRY.**

9     A.     I have a Bachelor of Science in Electrical Engineering from Tennessee Technology  
10           University, and a Master of Science in Engineering Management from the University of  
11           Tennessee. In addition, I am a registered Professional Engineer in Virginia, Illinois,  
12           Kentucky, Alabama and Tennessee. I have more than ten years experience in the energy  
13           industry, including engineering, operations and management at a municipal utility, and as  
14           a sales representative for one of the world's largest manufacturers of hi-tech products for  
15           the utility industry. I was employed with R.W. Beck, Inc., a global consulting firm, from  
16           1990 to 1997. My experience with R.W. Beck management team includes rates, finance,  
17           and management advisory services; feasibility studies; and transmission and distribution  
18           planning and design. With R.W. Beck, I have assisted clients in preparing strategic  
19           business plans and marketing plans, implementing Total Quality Management, and  
20           evaluating advanced technologies that improve business performance and customer  
21           service. Recently, I played a key role in the California Direct Access workshops relative  
22           to policy and technical strategies related to competitive metering, billing and information  
23           services. I also provided similar assistance in Arizona and New York.  
24

1 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

2 A. I will discuss the potential for competition in the "non-wire" or "revenue cycle"  
3 metering, billing and information services areas, the importance of unbundling, and the  
4 benefits to consumers and the economy of Pennsylvania arising from meaningful retail  
5 access. I will also comment upon the position of Duquesne Light Company  
6 ("Duquesne") on these issues.

7 Q. CAN YOU PLEASE SUMMARIZE YOUR CONCLUSIONS?

8 A. The provision of non-wire services is not a natural monopoly. I contend, therefore, that  
9 non-wire services can, and should, be provided competitively. Consumers should be  
10 allowed to choose their provider of metering, meter-reading, billing and information  
11 services through open market competition for each of these unbundled elements of  
12 electricity service. The potential gains from real direct access to consumers and the  
13 economy as a whole are enormous.

14 Further, "open architecture" communication systems can and should be used to  
15 facilitate competitive provision of non-wire services. Such systems allow the hardware,  
16 software and data of multiple parties to interconnect and communicate with each other  
17 seamlessly, thereby permitting the marketplace to operate with minimal switching  
18 barriers, and at the same time providing complete protection for proprietary customer  
19 data.

20 Q. WHAT ARE NON-WIRE SERVICES?

21 A. The term "non-wire services" specifically identifies the functions of providing a meter;  
22 obtaining meter and usage data and distributing the information to consumers, utilities

1 and any other appropriate energy service providers; billing consumers for energy service  
2 costs; and providing related information/communication services to consumers in  
3 connection with their energy service. These are services that are distinct from the  
4 provision of "wire" services (i.e. the transmission and distribution of electricity). They  
5 are sometimes referred to as "revenue cycle services."

6 **Q. WHY SHOULD THE COMMISSION REQUIRE DUQUESNE TO OPEN THESE**  
7 **SERVICES TO COMPETITION?**

8  
9 A. Direct access and the benefits of generation supply competition will be immeasurably  
10 enhanced by the unbundling and competitive provision of these services. The  
11 Commission should promote competition in non-wire services because such competition  
12 will lower the costs of these services to consumers and stimulate innovative responses to  
13 customer specific requirements. Moreover, if the Commission were to attempt to  
14 preserve Duquesne's monopoly in metering and billing services, it would miss a dramatic  
15 opportunity to foster the growth of a technology and information-based industry which  
16 can bring substantial benefits to consumers.

17 **Q. IS IT IMPORTANT THAT UNBUNDLING TAKE PLACE IN THE**  
18 **RESTRUCTURING PROCESS?**

19  
20 A. Yes. Unbundling of non-wire services is important in the early stages of direct access  
21 when pure generation pricing competition will be restricted by utility competitive  
22 transition charges ("CTC") and intangible transition charges ("ITC"), and possibly non-  
23 utility generation ("NUG") costs, which, although paid to Duquesne, must be collected  
24 from all customers regardless of their selection of an electric generation supplier.  
25 Making metering and other non-wire services subject to competition will mean that

1 Pennsylvania businesses and consumers will receive the benefits of competition — lower  
2 prices, new and innovative products — in these service areas, which will enhance the  
3 overall value of direct access. Accordingly, requiring unbundling to allow competition in  
4 the non-wire service areas will allow efficient electric generation suppliers to  
5 differentiate themselves from their competitors and attract customers to their products  
6 based on comprehensive and innovative service offerings, while at the same time  
7 offering real value and benefits to Pennsylvania's consumers.

8 **Q. ARE THERE ANALOGOUS EXPERIENCES ELSEWHERE THAT WOULD**  
9 **TEND TO SUPPORT THE POLICY OF COMPETITION IN NON-WIRE**  
10 **SERVICES?**

11 **A.** Yes. The California Public Utility Commission ("California Commission") unbundled  
12 natural gas transportation and procurement in 1991. Unfortunately, it halted its  
13 unbundling efforts for smaller customers at the point where those customers benefitted  
14 only from competition for the commodity itself. The net result has been fewer  
15 competitors and less value for these smaller customers. In response to gas price  
16 competition from marketers, the gas utilities reduced their cost of gas to meet the  
17 competitive marketplace. This left the competitive industry with extremely thin margins  
18 and with no ability to create additional value for customers by providing better or less  
19 expensive service in other areas, such as metering and billing. Consequently, while  
20 nearly fifty marketers entered the market, only three survived fitfully at the end of 1996.  
21 By shielding competitive markets within the protected utility monopoly, the California  
22 Commission drastically diminished the opportunity for customers to reap the benefits that  
23 should accompany new players entering a market. The California Commission now  
24

1 recognizes this shortcoming, and as a result, is actually attempting to rectify the situation  
2 through policy initiatives currently under way.

3 The restructuring of the electric utility industry provides an opportunity to  
4 improve efficiency and reduce costs. If a competitive market is allowed to develop in the  
5 electric services industry, the experience in other industries indicates that the price of  
6 services (or the cost per transaction) will decrease, the quality of service will rise, and  
7 more focused service providers will enter the market to compete. However, the  
8 restructuring process must avoid the primary mistake made by the California  
9 Commission in the deregulation of gas -- the failure to unbundle fully non-wire services.  
10 To allow effective competition, there must be direct access on a level playing field, and  
11 metering, billing and information services must be unbundled and provided  
12 competitively. In this way metering services and billing/customer accounts services can  
13 be managed and provided by one or more full service electric suppliers or by other  
14 companies which specialize in these services and have the flexibility to offer innovative  
15 packages of unbundled services. In addition, unbundling places financial and  
16 competitive risks on the service providers, not ratepayers, as is the case in the current  
17 regulated monopoly model.

18 I note that in restructuring the electric industry, the California Commission issued  
19 its Opinion on the Unbundling of Revenue Cycle Services on May 6, 1997.<sup>1</sup> Here, the

---

<sup>1</sup> Decision 97-05-039 at 8. The California Commission there stated:

There are long-run issues that might motivate this Commission to consider  
the merits of allowing energy suppliers to offer these services some time

(continued...)

1 California Commission did make the general policy decision to allow metering, billing  
2 and customer services to be provided competitively as of January 1, 1998, except for the  
3 smaller customers (20 kW or less) where the California Commission deferred the  
4 initiation of competition until January 1, 1999.<sup>2</sup>

5 The California Commission's decision to allow competitive metering, billing and  
6 customer care has already led to significant investment in the state's infrastructure. For  
7 example, Cellnet Data Systems recently announced that it is constructing a  
8 communications network in California to bring new products and services to customers at  
9 lower costs. Without allowing competition in metering, billing and customer care, these  
10 new services would never have been available to customers.<sup>3</sup>

11 **Q. HAS THE PUBLIC UTILITY COMMISSION TAKEN A POSITION ON THE**  
12 **UNBUNDLING OF REVENUE CYCLE SERVICES?**  
13

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<sup>1</sup>(...continued)

in the future. What prompts us to ask these questions now is a concern that direct access opportunities to residential and small commercial customers in 1998 might be severely limited if we fail to allow energy providers to provide these services and to offer their customers the resulting savings.

<sup>2</sup> Id. at pp. 16 and 17.

<sup>3</sup> It is interesting to note that in Duquesne witness Allison's testimony, he refers to an article written by the vice president of Cellnet, Chris S. King. Cellnet's technology is radio based and it, along with Itron, have often testified to their technologies' dependence upon economies of scale. However, Cellnet must believe they can competitively offer services without economies of scale since, even without any assurance of a large customer base for its service, Cellnet has made a large investment in California, where metering, billing and customer care have been unbundled and are competitive.

1 A. It is my understanding that the Commission has ruled that such unbundling and  
2 competitive entry is legally permissible. On July 11, 1997, the Commission issued its  
3 Final Order on Guidelines for Maintaining Customer Services at the Same Level.<sup>4</sup> In this  
4 “Customer Services Order,” the Commission recognized the right to unbundle and  
5 competitively provide the billing and supplier complaint functions under the Competition  
6 Act. The Commission stated:<sup>5</sup>

7 [We simply disagree with the conclusions. . . that only  
8 EDCs can provide these customer service functions. We  
9 submit that there is nothing in the Act that would prohibit  
10 the supplier single bill option and supplier complaint  
11 handling. Although § 2807(C) recognizes that the EDC  
12 “may be” responsible for the billing of all electric services,  
13 there is nothing in this passive provision or anywhere else  
14 in the Act that makes the EDCs the exclusive providers of  
15 these customer service functions.

16  
17 We believe that the Act’s reference to the EDC’s  
18 responsibility to provide customer service functions under  
19 § 2807(D) is intended to maintain the status quo and is  
20 merely a reflection that the EDC must stand ready to  
21 provide these customer service functions. However,  
22 concerning the two specific customer service functions at  
23 issue; namely, billing and complaint resolution, we do not  
24 read this provision or any other provision of the Act as  
25 excluding suppliers from providing these functions. In  
26 fact, we believe this interpretation is consistent with the  
27 declared policy of the Act to create a competitive market  
28 for the generation of electricity.  
29

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<sup>4</sup> Final Order re: Guidelines for Maintaining Customer Services at the Same Level of Quality Pursuant to 66 Pa. C.S. § 2807(D) and Assuring Conformance with 52 Pa. Code Chapter 56 Pursuant to 66 Pa. C.S. § 2809(E) and (F), Docket No. M-00960890F.0011 (Order entered July 11, 1997).

<sup>5</sup> Id. at 10-11.

1           The Commission did not implement this guideline immediately but retained it as  
2 an option to be explored in the context of the restructuring filing of each utility.  
3 Regretfully, Duquesne has not, as ordered by the Commission, proposed a supplier  
4 complete bill option.

5   **Q.    ISN'T COMPETITION IN THE GENERATION MARKETS SUFFICIENT?**

6   **A.**   No. The introduction of competition in non-wire services will bring customers  
7 substantial benefits that would not be obtained if competition is limited to the supply of  
8 generation. The success of direct access will hinge on the ability of customers to be able  
9 to choose among the service and product offerings of competitive suppliers, such as  
10 Enron. Unless those suppliers provide these additional non-wire services, they will be  
11 placed at a competitive disadvantage vis-a-vis Duquesne, and that, correspondingly, will  
12 severely limit consumer benefits. If new entrants are prevented from bringing the full  
13 range of potential competitive offerings to consumers, consumers will see fewer benefits  
14 and the direct access market will be that much less competitive, that much less efficient,  
15 and provide correspondingly less service innovation and cost savings to consumers.  
16 Again, I highlight the experience of the gas industry in California, where competition  
17 was limited to the "commodity," and consumers were denied the full benefits of  
18 competition. On the other hand, permitting competition in all of the non-monopoly  
19 functions, including non-wire services, will stimulate competitors to innovate and market  
20 lower-cost and more efficient services to go along with the energy service, encouraging  
21 even more entrants, and intensifying the competition which will ultimately benefit all  
22 Pennsylvania electric consumers.

1 Q. **SHOULD THE COMMISSION MANDATE NEW, MORE SOPHISTICATED**  
2 **METERS AS A PREREQUISITE TO DIRECT ACCESS AND COMPETITION IN**  
3 **NON-WIRE SERVICES?**

4  
5 A. No. Consumers differ in their needs, and a regulatory solution of "one size fits all" tends  
6 to result in none fitting well. Residential consumers do not need or require the same type  
7 of meter services as do, for example, large commercial customers. The installation of  
8 real time meters ("RTM") should proceed as customers and the market dictate. Clearly,  
9 system-wide installation is not required to commence direct access. Small commercial  
10 and residential customers can be adequately served using load profiles and after-the-fact  
11 settlement of energy charges. Large commercial and industrial customers, on the other  
12 hand, will most likely choose highly individualized arrangements, which also argues  
13 against system-wide installation of any single type of RTM. In addition, system-wide  
14 installation by the utility carries with it the burden of huge costs for ratepayers. The  
15 unbundling of non-wire services will allow value added services to offset some of the  
16 installation cost of RTM units, bringing these services to more and more customers  
17 without any utility expenditure.

18 Q. **COULDN'T COMPETITION DEVELOP IN NON-WIRE SERVICES WITH THE**  
19 **UTILITIES' COSTS BUNDLED INTO A DISTRIBUTION RATE?**

20  
21 A. No. As a practical matter, it is hard to see how competition could begin without the price  
22 being unbundled, *i.e.* separately stated. From an emerging competitive market  
23 perspective, if the Commission permits meter services to be bundled with Duquesne's  
24 distribution service, the Commission would actually limit access to the metering market  
25 for new entrants because customers would have to pay twice for meter and metering  
26 services and Duquesne would gain an unfair competitive advantage. This is because the

1 utilities could retrofit the existing meter with their chosen version of new technology. On  
2 the other hand, a competitor would be forced to construct a new Automated Meter  
3 Reading ("AMR") gateway downstream of Duquesne's meter, which requires entry to  
4 the customer's home, perhaps modification or removal of portions of a wall or the  
5 movement of the circuit breaker box. This construction would result in increasing costs  
6 as well as delays, and aesthetic concerns for consumers. Finally, without unbundled  
7 metering charges on the customer's bill, the customer would be forced to pay for the  
8 utility's metering as part of the "bundled" delivery service rate. This is obviously unfair  
9 and not consistent with my understanding of the goal of bringing competition to  
10 Pennsylvania's electric services industry.

11 **Q. WILL COMPETITION IN NON-WIRE SERVICES LEAD TO DUPLICATION**  
12 **AND INCREASED COST?**

13  
14 A. No. Once unbundled, service providers will be able to decide who will provide these  
15 services, so there is no duplication. The proliferation of cost reduction initiatives  
16 frequently results from the restructuring of customer account services, including process  
17 redesign, outsourcing, and offerings of new products and services. The existence of new  
18 sources of value have changed system economics so as to encourage providers in other  
19 industries to absorb up-front customer acquisition costs, with the result that products and  
20 services are more widely available. Based on past experience with deregulated markets,  
21 Enron expects that the unbundled market for billing and customer account services would  
22 exhibit major cost reductions and value added enhancements by third party customer  
23 service providers that focus upon one, or a few, services. Compare the experience of the  
24 telecommunications industry where local exchange carriers reduced their own billing and

1 customer costs by 28% (Exhibit 3, JAB-1). However, these same companies realized that  
2 utilizing third party billing companies who could concentrate on the specifics of the  
3 billing function could produce even larger savings, between 20% and 62% below their  
4 initial expense levels (Exhibit 3, JAB-2). As a result of competition and innovation in  
5 these customer service areas, the consumer will have expanded choice and enjoy the  
6 benefits of greater value at lower costs. Just as importantly, the consumer will be offered  
7 new services which were not available even a short time prior to restructuring.

8 **Q. WHAT KIND OF NEW SERVICES COULD BE PROVIDED?**

9 A. There is a variety of new services which could be provided in metering, billing and  
10 customer care functions, including appliance monitoring, latchkey services, toxic gas  
11 detection, time-of-use pricing, and outage detection. Please refer to Exhibit 3, JAB-3.

12 **Q. CAN YOU PROVIDE AN EXPLANATION OF HOW SUCH A SYSTEM**  
13 **WORKS?**

14 A. Yes. Please refer to my Exhibit 3, JAB-4.

16 **Q. WHAT STEPS MUST THE COMMISSION TAKE TO ALLOW THE**  
17 **TECHNICAL IMPLEMENTATION OF NON-WIRE SERVICES?**

18 A. I urge the Commission to require that the utilities and all other suppliers who install  
19 meter facilities employ an open system architecture. By this, I mean that all metering  
20 devices can be interconnected with Duquesne's system, and can be integrated with a  
21 communications link to provide data readable to Duquesne and to any other affected  
22 supplier. Communications standards and protocols will develop, and will develop faster  
23 once there is substantial competition. History teaches that the choice of standards by  
24 regulatory decision-making is rarely the right answer.  
25

1 Q. DOES DUQUESNE INDICATE THAT IT WILL UTILIZE AN OPEN  
2 SYSTEM ARCHITECTURE?  
3

4 A. No. In fact, Company witness Allison indicates that Duquesne signed a fifteen  
5 year "full-service" contract with Itron, Inc. to provide an electronic communication link  
6 to approximately 580,000 customers in Allegheny and Beaver counties.

7 Q. ARE YOU FAMILIAR WITH ITRON, INC. AND ITS PRODUCTS?  
8

9 A. Yes, Itron has a proprietary network that currently requires the meter to be  
10 bundled with meter reading. Without change, the use of this proprietary system by  
11 Duquesne would foreclose competitive metering and meter reading alternatives. This is  
12 the old "monopoly" model of doing business and should not survive in the competitive  
13 marketplace.

14 Q. DUQUESNE WITNESS ALLISON INDICATES THAT THERE WILL BE  
15 CONSIDERABLE BENEFITS TO CUSTOMERS BY IMPLEMENTING  
16 THE ITRON SYSTEM. DO YOU AGREE?  
17

18 A. No, I do not. Duquesne apparently is attempting to impose a "one size fits all"  
19 approach which offers no choices to the consumer, and which would result in  
20 considerable lost consumer opportunity and benefits. For example, in the phone business  
21 there are multiple competing networks: cellular, PCS, satellite, traditional land lines, etc.  
22 History in the telecommunication business proves that new technology will be developed  
23 to offer better products at lower costs but unless the market is open to competition, this  
24 will never happen. The Itron system would not allow such competition to develop.

25 Q. ARE THERE OTHER REASONS YOU DO NOT BELIEVE THIS IS  
26 BENEFICIAL TO DUQUESNE'S CUSTOMERS?  
27

1 A. Yes. Their blanket implementation of advanced metering puts the risks on the  
2 rate payers, rather than the shareholder. In a competitive market, metering and billing  
3 should be offered by Duquesne's affiliate and any competitors and all costs should be  
4 separated from the wire services. Under this model, Duquesne customers would benefit  
5 from competition in the metering communication network. Customers and energy  
6 service suppliers will choose to use Duquesne's communication network if it provides a  
7 service at a competitive price. However, the PUC should mandate that there is a choice  
8 because in a competitive market I believe there will be fierce competition not only for the  
9 meter itself, but also for the communication network.

10 **Q. WHAT ABOUT THE FACT THAT DUQUESNE HAS ALREADY SIGNED**  
11 **A FIFTEEN YEAR LEASE?**  
12

13 A. First of all, as noted above, the most appropriate entity to offer this service should  
14 be Duquesne's affiliate (as one of any array of "competition" provides). However, once  
15 the Commission mandates competition in the revenue cycle services I am informed that  
16 the Commission has the authority to amend and revise contracts. They therefore could  
17 order a revision that would guarantee rate payers did not suffer financially for the lack of  
18 foresight that Duquesne exhibited in signing such a lease. Certainly, Duquesne's  
19 unilateral action in entering into the arrangement cannot act as a bar to competitive  
20 development in Duquesne's service territory. The Commission should direct Duquesne  
21 to work with suppliers and others to implement modifications in the "CARS" system to  
22 allow supplier-provided meters, automatic meter reading and billing through and  
23 "Information Open Access" system, as I describe below.  
24

1 **Q. HOW DOES THE DUQUESNE ITRON SYSTEM COMPARE TO YOUR**  
2 **ENDORSED IOA SYSTEM?**

3  
4 A. Duquesne's Itron system is a one-way interface subject to the complete control of  
5 Duquesne. Under such a system, Duquesne would control the content and format of  
6 information its competitors receive and would establish itself as communications  
7 "gatekeeper" for its competitors. This type of system would not be the type of open  
8 network architecture system necessary to enable full competitive development. The IOA  
9 system I endorse is a two-way system which permits Duquesne and a customer's supplier  
10 equal access to the necessary customer information without sacrificing proprietary  
11 concerns pertaining to dissemination of such information to third parties. Under the  
12 system of open architecture I recommend, this should not be a problem.

13 **Q. ARE THERE OTHER STEPS THE COMMISSION SHOULD TAKE TO**  
14 **ALLOW THE TECHNICAL IMPLEMENTATION OF NON-WIRE**  
15 **SERVICES?**

16  
17 A. Yes. The introduction of competition requires that the Commission develop  
18 additional standards with respect to meter reading, including minimum data elements,  
19 timely data access, open architecture storage and communications, security and  
20 enforcement procedures. These new standards should not dictate the use of specific  
21 metering devices, communication protocols employed at the customer site, hardware,  
22 software, ownership of meters, or other terms of commercial service agreements.  
23 Finally, as the Commission institutes the unbundling of metering service, Enron would  
24 recommend that a working group format is an appropriate venue to develop the additional  
25 guidelines for implementation.

26 **Q. WHAT ABOUT METER SAFETY AND ACCURACY?**

1 A. The Commission should also ensure that existing standards approved by the Commission  
2 should be used by Duquesne and other suppliers for meter and meter reading safety,  
3 accuracy, installation, and performance. Moreover, industry-wide standards for meter  
4 safety, accuracy, installation, and performance exist today. Chief among these are those  
5 standards contained in the National Electrical Code (NEC) and the C12 series of the  
6 American National Standards Institute (ANSI).

7 **Q. HOW WILL EACH PARTY THAT NEEDS THE USAGE INFORMATION BE**  
8 **ABLE TO OBTAIN THE DATA?**

9 A. Enron recommends that the efficient exchange of usage and billing information between  
10 necessary parties will be accomplished through an information open access ("IOA")  
11 system. As noted above, the technology for implementing open access to metering and  
12 billing exists today. Ultimately the implementation of open access will be an absolute  
13 necessity to bringing the full benefits of competition to consumers. The Commission is  
14 familiar with the concepts underlying IOA from the electronic interfaces between  
15 incumbent local exchange carriers and competitive local exchange carriers which have  
16 been required in implementing the Telecommunications Act of 1996 for the  
17 telecommunications industry. As I describe in Exhibit 4, JAB-5, IOA will operate in a  
18 manner similar to the electronic interfaces presently being implemented in the  
19 telecommunications industry by allowing both Duquesne and the supplier access to the  
20 necessary information to provide comprehensive, high quality service to customers.

21 **Q. CAN PENNSYLVANIA IMPLEMENT DIRECT ACCESS WITH EXISTING**  
22 **METERS?**  
23

1 A. Yes. Some consumers may wish to take advantage of direct access without prior  
2 installation of a time-of-use meter. This is likely to occur for residential and small  
3 commercial consumers, especially at the beginning of retail competition. For small  
4 customers, electric suppliers can readily use Duquesne's load profiles. Customers will be  
5 billed for actual power used, based upon the meter information read and transmitted by  
6 Duquesne (if Duquesne continues to operate its own metering system) to the supplier.  
7 The load forecasts will be compared and adjusted on a regular basis with the actual usage  
8 data to account for any balances and to ensure accuracy. Appropriate load profiles can be  
9 developed for various small customer types based on factors such as size, heating  
10 equipment, etc. However, it is critical that the Commission require Duquesne and other  
11 utilities to provide demand profiles to suppliers which represent average usage patterns  
12 for each customer class. These demand profiles must be updated on a regular basis.  
13 Market participants may make an economic decision to install time-of-use metering  
14 equipment at any later date. Critically, however, direct access would be available to  
15 consumers without requiring new meters at the outset. However, with Itron the customer  
16 will be told when they need a new meter.

17 **Q. WHAT ARE THE SPECIFIC BENEFITS OF UNBUNDLED AND**  
18 **COMPETITIVE METERING FOR RESIDENTIAL SERVICE?**  
19

20 A. Metering is a prime example of how the introduction of competition into non-wire  
21 services will not only stimulate the development of direct access but also provide new  
22 innovative services and increased choices to consumers. Under the current system, the  
23 utility, not the consumer, makes the choice as to what type of meter will be utilized to  
24 measure service.

1           Meanwhile, AMR technology is not only feasible, but is available today in a  
2 competitive meter market, and at a very competitive cost. New AMR technology is  
3 being advertised at under \$100 per unit. The introduction of innovative metering and  
4 metering services also will significantly expand choice for Pennsylvania consumers. The  
5 introduction of innovative metering technology will directly result in new pricing options  
6 by electric generation suppliers who recognize consumers' desires to achieve the lowest  
7 possible bill.

8           The introduction of competition will also increase efficiency and reduce metering  
9 costs. It is very possible that competitive forces in the marketplace will dictate that  
10 suppliers will install and provide remote-read, time-of-use meters at no initial cost to  
11 consumers. At a bare minimum, competition will drastically reduce the costs of  
12 installing and providing consumers with sophisticated meters — which by all accounts  
13 are critical to the development of full competition — as compared to the costs incurred if  
14 Duquesne was encouraged to install technologically advanced meters throughout their  
15 service territories.

16 **Q. IF A COMPETITIVE SUPPLIER REPLACES A UTILITY METER WITH ONE**  
17 **OF ITS OWN, WON'T THE CUSTOMER AND UTILITY BE AT RISK IF THE**  
18 **SUPPLIER/CUSTOMER RELATIONSHIP ENDS AND THE SUPPLIER**  
19 **REMOVES ITS METER, LEAVING THE CUSTOMER WITHOUT ANY**  
20 **METER?**

21  
22 A. Clearly, no customer should ever be without a meter. If a supplier replaces Duquesne's  
23 meter and later wants to remove its meter because the customer relationship has ended, it  
24 is reasonable to require the supplier either to restore a utility meter for the customer or  
25 leave the supplier's meter in place until a new electric supplier has been chosen by the

1 customer and arrangements made for a new meter to be installed. This would assure that  
2 there is no break in the customer's ability to receive energy or in Duquesne's ability to  
3 bill for its services.

4 **Q. ARE YOU ADVOCATING A "SUPPLIER SINGLE BILL SYSTEM"?**

5 A. Yes, as an alternative for those customers who want it. As more fully described in  
6 Mr. Muench's testimony (Enron Statement No. 4), the supplier single billing option for  
7 electrical energy service is both important to customers and achievable. Customers will  
8 likely not embrace a system that generates different bills for electricity, transmission  
9 services, and other unbundled services and functions. This requires that the consumer  
10 have the power to choose which entity will conduct metering and billing services, and  
11 that the supplier have the right to act as the consumer's agent for all other services.

12 **Q. WHAT BENEFITS WILL THIS PROVIDE?**

13 A. By having the ability to obtain all services from competitive providers, the customer's  
14 choices -- and competition -- are maximized. The customer should have the right to  
15 obtain, and the electricity supplier to provide or acquire as agent for the customer, all  
16 services, including delivery services. This will enable the supplier to maximize value in  
17 all areas; increase efficiencies; and insulate the EDC from risk of consumer nonpayment  
18 by making the supplier responsible to remit to the EDC for the service used by the  
19 consumer.

20 **Q. WHAT WOULD YOU RECOMMEND THAT THE COMMISSION DO TO**  
21 **EXPEDITE THE INTRODUCTION OF COMPETITIVE NON-WIRE**  
22 **SERVICES?**  
23

1 A. The Commission should require Duquesne to unbundle non-wire services and establish  
2 non-discriminatory rules for their provision by suppliers in their Electric Service Tariff.  
3 Mr. Reising will discuss these issues in his testimony (Enron Statement No. 2).

4 **Q. WHAT HAS DUQUESNE PROPOSED WITH RESPECT TO UNBUNDLING**  
5 **NON-WIRE SERVICES AND OPENING SUCH SERVICES TO COMPETITION?**  
6

7 A. Duquesne has taken the position that non-wire services should remain within the  
8 regulated utility. Company witness, Mr. Allison, specifically states in his testimony that  
9 Duquesne will not open such services to competition, nor will it unbundle or state the  
10 rates for those services (Duquesne St. No. 8 at 16). He cites safety and customer service  
11 concerns for his position. Based on these statements it is clear that Duquesne does not  
12 intend to open their non-wire services to competition as I am recommending in my  
13 testimony. In fact, Mr. Allison has criticized parties such as Enron that would advocate  
14 the competitive provision of the revenue cycle services.

15 **Q. WHAT ARE THOSE CRITICISMS?**

16 A. One of his primary concerns seems to be that if EGS personnel were included in  
17 metering service that the safety and reliability of the system would be threatened.  
18 (Duquesne St. No. 8 at 17-18).

19 **Q. DOES DUQUESNE'S POSITION HAVE ANY VALIDITY?**

20 A. No. Clearly, meter installation and repair need to be conducted by properly trained  
21 personnel. The contention that only employees who work for an EDC are capable of  
22 being so trained is obviously not supportable. Mr. Allison's concerns can and should  
23 be addressed by having the Commission establish minimum qualifications and training

1 for installation personnel and to require EGS services to meet the same service  
2 standards as the EDC.

3 There is no reason why EGS personnel cannot perform the meter and billing  
4 related services with at the same level of competence and safety as customers presently  
5 enjoy. In fact, if history is any guide, a competitive market would enhance the service  
6 provided. Indeed, in the years before the break-up of AT&T, AT&T used to argue  
7 that only equipment that it owned and controlled could safely be installed and  
8 maintained on the network only by Bell System employees and that competition would  
9 result in all types of service inadequacies. We can now look back and acknowledge  
10 that those concerns were invalid. Indeed, most of us take for granted how much more  
11 selection we have in the purchase of phone equipment, how much more convenient it  
12 is to have a phone installed and how phone equipment has improved through  
13 innovation.

14 The same type of concerns were raised in the early days of ATMs. Yet  
15 today, the various participants in that industry have so arranged among themselves that  
16 an individual with a card can obtain funds virtually anywhere in the world for little or  
17 no charge. Concerns about customer confidentiality and accuracy have virtually  
18 disappeared. I see no reason why the participants in the competitive metering and  
19 billing business could not similarly work those details out with the assistance of the  
20 regulator — in this case the Pennsylvania Public Utility Commission. I believe that the  
21 methodology used by the Commission through task forces, working groups and generic  
22 docket proceedings will enable all of the problems arising in the transition to a

1 competitive environment for metering and billing to be resolved. One must note that  
2 the same types of concerns were raised — and rejected — as reasons to hold up  
3 unbundling by the California PUC. Obviously, if those concerns can be overcome in  
4 California national standards and protocols will soon be available to make the  
5 transition here smooth.

6 More important, we are dealing with an act that fosters competition. There is  
7 no reason for the Commission to forego the opportunity to foster competition in this  
8 regard at this time. Mr. Allison wishes to forego additional competition by raising all  
9 types of problems and concerns. These are all resolvable and require only an order to  
10 unbundle and work out the details.

11 **Q. ARE THERE OTHER CRITICISMS RAISED BY DUQUESNE?**

12 A. Yes. Mr. Allison indicates on page 18 of his testimony that he does not believe there is  
13 much savings to be offered to the customer. In my opinion, if Duquesne had in fact  
14 properly conducted the studies to determine the costs for each unbundled section of the  
15 bill, I believe Mr. Allison might be surprised at how many customers would consider  
16 those savings significant. While Mr. Allison does not provide any support, Mr. Paul  
17 Reising (Enron St. No. 2) has presented an analysis and will present that as part of his  
18 unbundling tariff. At any rate, even if the savings are small now, unbundling will still  
19 create a competitive market, likely resulting in enhanced savings in the future. Mr.  
20 Allison, on page 18 of his testimony, seems to infer that because an EDC may remain as  
21 the supplier of last resort, that somehow suppliers will be able to pick and choose  
22 customers that are profitable to serve, while ignoring those that are not profitable. First

1 of all, being the supplier of last resort is not looked upon by Enron with the disdain that  
2 some utilities seem to imply. Enron has made it clear that it will supply all customers  
3 from the largest industrial to residential involved with universal service and other low  
4 income customers. Enron has no problem with the Act's requirement that all customers  
5 be served at the same high-level of reliability that exists today. Enron, in that regard, like  
6 Duquesne, believes that it should exceed minimum standards, not just meet them. The  
7 disagreement is that Duquesne still believes that it can provide as a monopoly provider  
8 service as efficient as the competitive market can. While, in my opinion, it is wrong,  
9 allowing competitive alternatives to the EDC for non-wire services simply give  
10 customers additional options, and the opportunity for Duquesne to show that it can win a  
11 race where there actually are competitors.

12  
13 **Q. WHAT IS YOUR CONCLUSION?**

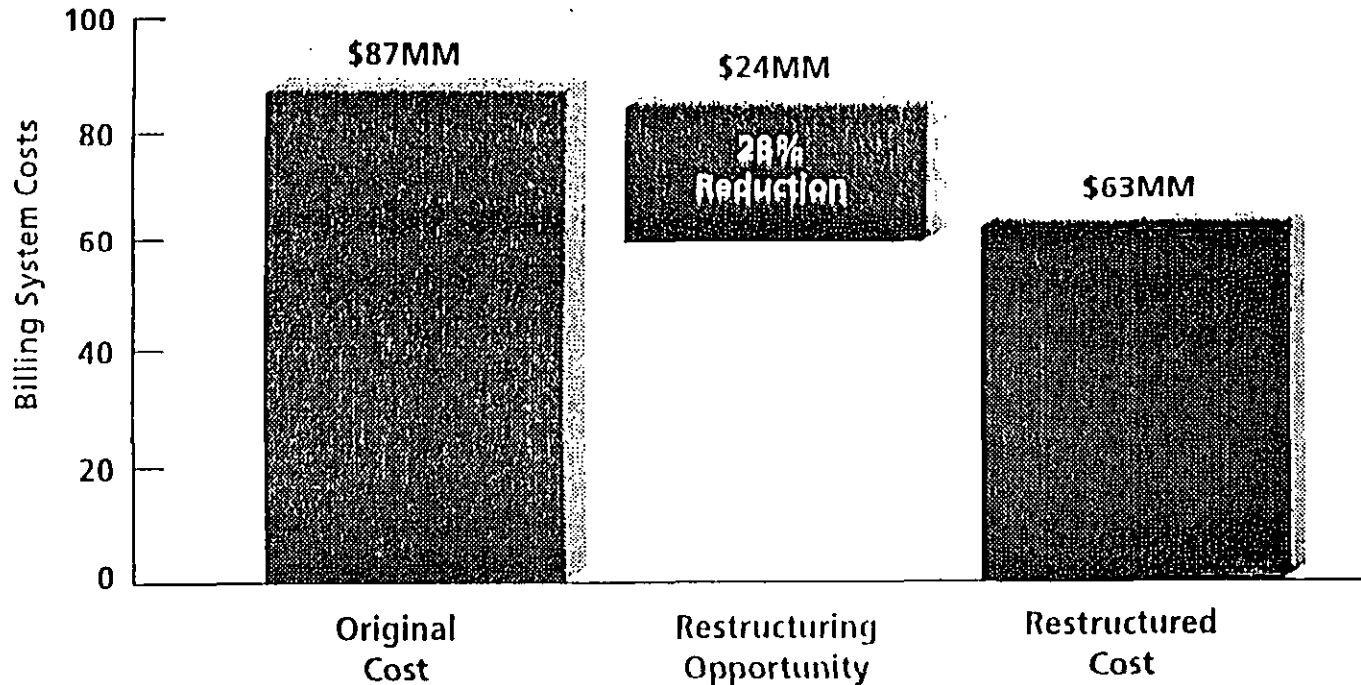
14  
15 A. The Commission should order Duquesne to unbundle non-wire services as part of their  
16 restructuring plans, and develop non-discriminatory terms, conditions, and protections so  
17 that suppliers can provide these services competitively. In addition, the Commission  
18 should announce a policy in favor of open architecture for non-wire functions so that new  
19 options for metering, billing and information services are not unnecessarily foreclosed  
20 and that these policies shall apply to Duquesne's Itron leasing agreement. Finally, the  
21 Commission should encourage workshops to discuss what standards and protocols need  
22 to be identified to increase customer access to unbundled non-wire services and to work  
23 out procedures for the sharing of meter data.

24 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

25 A. Yes.

# Customer Account Services Billing System Opportunities (Representative Example)

*Competitive Prices have required local telephone companies to restructure their billing systems, resulting in lower costs*



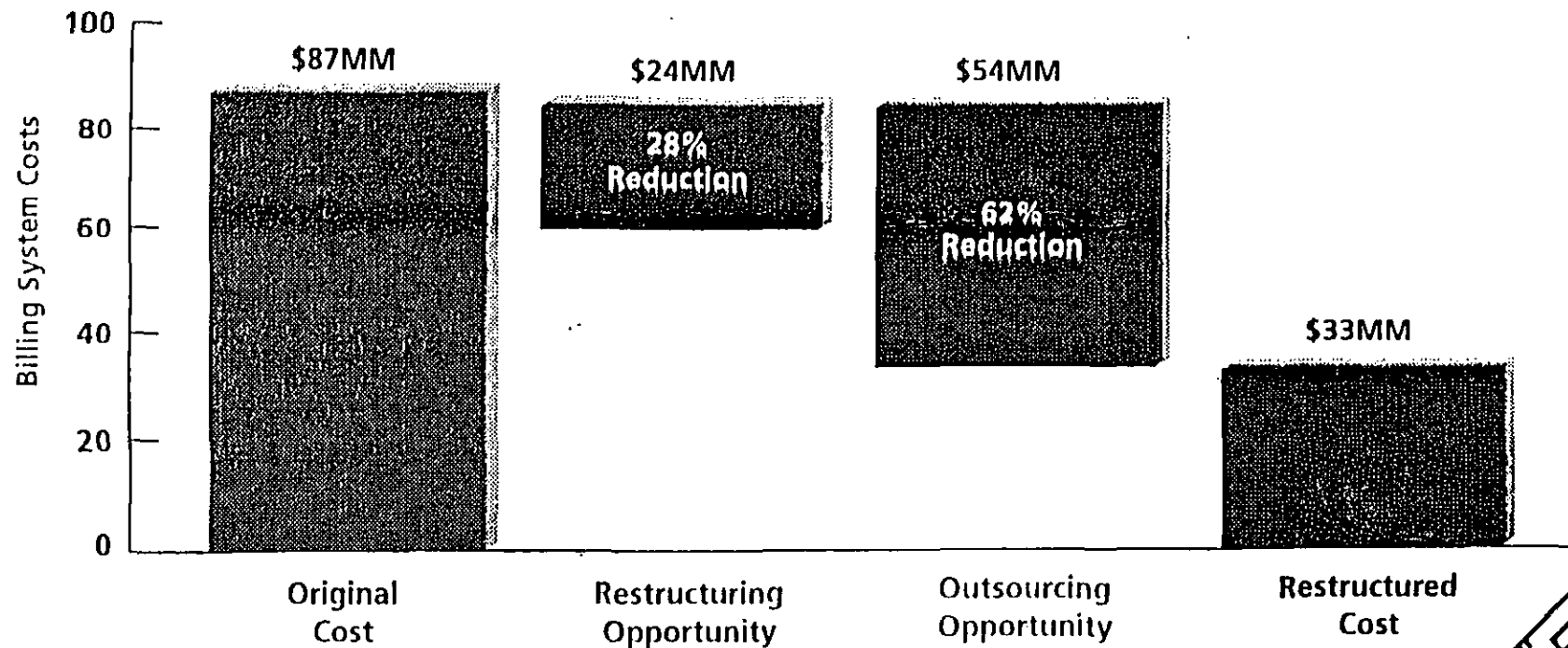
Source: Bain & Company, Inc.

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# Customer Account Services Third Party Billing Services (Representative Example)

*As local telephone companies began to assess the competitiveness of their billing operations, they realized that some third parties provide this service less expensively*



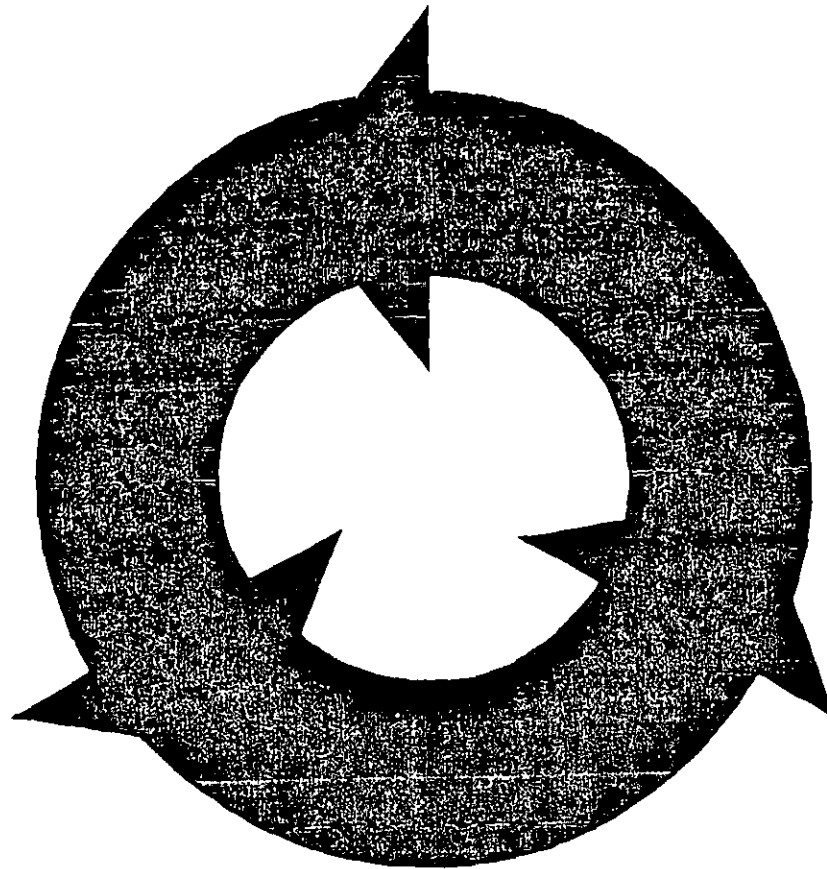
Source: Bain & Company, Inc.

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# Non-Wire Products & Services: "Endless Possibilities"

Real-time pricing  
TOU pricing  
Real-time budgeting  
Load management  
Outage detection



Telephony  
Internet  
Appliance monitoring  
CATV  
Security systems  
Financial services  
Latchkey monitoring  
Toxic gas detection

Electronic billing  
Itemized billing  
Multi-product conjunctive  
billing  
Multi-site summary billing  
Load allocation  
Energy use analysis

## NON-WIRE COMMUNICATIONS NETWORK CONCEPTUAL MODEL

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### GENERAL

The Non-Wire Businesses will need a communications network to share and exchange data. This network, although similar to the ISO network, must be a separate and distinct network, using open protocols with controlled access. This document highlights the approach for developing the Non-Wire Network.

In examining the need for open architecture standards for non-wire services, one should first look at the various types of data communications associated with metering. Three types of metering communications were identified and are addressed in this model. These communication areas are:

1. Between meter and devices within the premises
2. Between meter and meter reading company
3. Between meter reading company and meter data users (non-wire services companies)

### COMMUNICATIONS BETWEEN THE METER AND CONTROL DEVICES WITHIN THE PREMISES

Providing services beyond the meter requires data communications between the meter and the device being Controlled or monitored. Traditionally, this is accomplished using power line carrier or radio within the home or plant. Although there is no universally accepted open architecture for in-home communications, the two major data communication protocols in this market are Echelon Lonworks and CEBus. These protocols have been evaluated by various entities and each has unique benefits. The Electric Power Research Institute (EPRI) is planning to include metering and metering systems in their Utility Communications Architecture (UCA) standards. Accordingly, UCA could become another major alternative protocol in the market.

Provided the communication architecture and Protocols are open,<sup>1</sup> Enron believes the market should determine which, if any, of these protocols is adopted as a standard.

---

<sup>1</sup> Open architecture is used throughout this document to mean a design for a data network that fulfils the objective of allowing any user to communicate with any other user, regardless of the types of computer systems and devices in use. Such a system requires standard conventions to be used throughout the network, including the communications aspects and the processing aspects that take place in computer applications.

## COMMUNICATIONS BETWEEN THE METER AND THE METER READING COMPANY

There are no recognized industry standards for open architecture communication between Meters and an automated meter reading system. There are open protocols available for each type of system (e.g., PCS, satellite, phone, radio, broadband), but no single standard exists. Enron believes there is minimal value in developing one open standard for this application and recommends that each meter reading company be allowed to use the communications infrastructure of its choice so long as the architecture and protocols are open.

## COMMUNICATION BETWEEN THE METER READING COMPANY AND METER DATA USERS

As a first step in understanding the process necessary to support the data flow of meter data, one should identify the potential users of meter data. When looking at the diversity of meter data users, it becomes clear that the essential data processing issue is not the underlying AMR technology, but rather how the data will be made accessible to all users of the data. In addition to the meter reading company who serves the data collection function, other potential meter data users who require timely, direct access to individual customer meter data are the:

- Billing Company - the entity charged with producing the end-user billing requires the energy usage data
- Distribution Company - the Disco requires meter data for planning and maintaining the distribution system
- Customer Care Company - the customer service entity needs the data for customer inquiry and billing analysis
- Load Aggregator/ESP - the aggregator and energy service provider need the data for ISO energy scheduling and settlement purposes
- Others - regulators or new value added business entities may require access to the data

While in some cases all of these functions may be performed by a single company, it is recognized that open competition requires that the proposed standards must support the situation where separate and independent companies could perform each of the functions.

Enron recommends that each meter reading company be required to maintain a real-time database that is accessible to all interested parties. This approach means that information would be distributed and shared across many (potentially hundreds) independent but interconnected databases. Satisfying this requirement means that a data communications infrastructure is necessary so that



The proposed model calls for storage of meter data in two locations. First, it will be the responsibility of the meter reading company to maintain the data on their local server. At the frequency that the meter data is collected, the meter reading company's data processing system shall send (push) the data to those users who have requested the specific meter data. This automatic data push approach will help reduce the number of network transactions and will provide for timely user access to the data. Meter reading companies must also support on-demand requests for specific data for up to 90 days from the date of collection.

Another recipient and storage area of the meter reading company data shall be a centralized non-wire data warehouse. This data warehouse will be used as a collection point for meter data. The data warehouse will function as a centralized clearinghouse for non-wire data, however the warehouse will not be updated as frequently as the meter reading companies pushed data. That is, users requiring current hourly data for operational purposes will use the meter reading companies data while users requiring previous day's hourly data for settlement or billing purposes can use the warehouse. The warehouse will provide for the long-term storage and archival of non-wire data. The means for establishing such a large-scale data processing enterprise as the non-wire data warehouse has not yet been defined.

### Benefits of the Conceptual Model

Some of the benefits of this flexible non-wire data communications model are:

- It is independent of the data collection method
- It allows any qualified entity to use the information to support its business operations
- It provides for timely access to data for operational needs while also providing centralized long-term retrieval and archival capabilities
- It allows and will survive growth and advancements in technology, both in metering systems and in information technology
- It uses technologies that are proven and have been used before for similar data access requirements
- It is modeled after and operates similar to the ISO model

### INFORMATION TECHNOLOGY CHARACTERISTICS OF THE METER DATA FLOW MODEL

Success of this distributed architecture approach is contingent upon two important technological concepts: (1) a universal reading database structure, and (2) a high-speed data communications infrastructure.

### Universal Data Exchange Definition

The exchange of meter data between the various business entities will require development of a standard transaction-oriented end-use metering application protocol. The application protocol effectively creates a common definition of transactions for querying remote data and the format for the exchange of the reading data. This definition of the data exchange format should be independent of such factors as the type of metering device used, the meter reading data collection method employed, vendor specific billing system characteristics, and supplier specific data storage formats. We suggest that it be the responsibility of the meter reading company to perform any data conversions necessary for translating the native reading data collection format into the universal exchange data format. It also would be the meter reading company's responsibility to provide the data processing system(s) necessary to support the on-line storage, maintenance, and accessibility of these data.

A preliminary definition of the minimum metering data that is to be collected and distributed has been developed. The type of metering device will greatly influence the type and frequency of data that is collected, therefore the following is intended to establish a minimum data set and is not intended to place any limitations upon additional data that entities may wish to collect. Data collection information has been categorized into four general data types; these are (1) aggregated residential hourly load data, (2) individual residential consumption data, (3) Commercial/Industrial usage and power quality, and (4) service status data.

#### AGGREGATED RESIDENTIAL LOAD

Non-Wire Services companies will be operating in conjunction with Schedule Coordination companies to provide hourly load forecasting and scheduling of energy generation and delivery. In order to perform these functions efficiently, actual hourly energy consumption information must be available as a verification of the accuracy of the load forecast. Without the feedback of actual load versus forecasted load, energy imbalances between the Schedule Coordinators and the ISO could easily reach unacceptable levels. Transmitting each individual residential hourly meter reading to the Schedule Coordinators places an unreasonable burden upon the non-wire data communication infrastructure. Therefore, to facilitate the operational needs for Schedule Coordinators, the meter reading company must aggregate the available hourly residential consumption data for each Non-Wire Services company for whom the meter reading company is providing service. The meter reading company will then transmit ("push") the aggregated load information to the associated Non-Wire Services company. The preliminary definition of the minimum set of aggregation data to be sent is:

1. Transmitting company identifier - This is a unique identifier assigned to the meter reading company who collected the data and initiated the transmission.
2. Receiving Company identifier - This is the unique identifier, assigned to the Non-Wire Services company, who is receiving the aggregated load data.
3. Service area identifier - This is a unique identifier which defines the service area (i.e., UDC or transmission tie point) associated with the reported load.
4. Reading date and hour - This is the date and hour associated with the reported load.
5. Aggregated load - This is the aggregated energy consumption for the specified hour.

It is anticipated that the aggregated residential load data, whether estimated or actual, will be made available each hour. However, the specific sequences and schedule of hourly events necessary to support the ISO scheduling protocol has not been defined.

## RESIDENTIAL USAGE DATA DEFINITION

To facilitate the open exchange of residential meter data, the meter reading company must collect and make available on a periodic basis the following data items:

1. Service Point Identifier - The service point identifier is a value that uniquely locates each physical meter. A service point identifier would be associated with the physical premises and therefore would remain consistent throughout the life of the premise. The service point identifier would remain constant regardless of the number of times that meter reading companies, service providers, meters, or customers change at the premise. A standard for developing a universally unique service point identifier needs to be established.
2. Reading date and time - This is the date and time at which the meter reading was taken. Another important data issue is the establishment of a standard time zone for reporting usage data. It is recommended that a standard time reference be defined for use throughout the non-wire cycle. Enron recommends adopting Greenwich Mean Time (GMT) as a nationwide standard for all meter readings. Using GMT would eliminate time zone and daylight savings time issues. Any responsibility for convertible usage data into local time for billing or other uses will be the responsibility of the entity using the data.
3. Interval data (kWh) - This is the usage readings recorded in the meter at specified intervals.
4. Recording Interval - This is the time interval (i.e., 15, 30 or 60 minutes) at which the interval data is being recorded.
5. Type of service - Various meter types have different types of built-in metering services. This is a code identifying the type of service being reported.
6. AEP meter identifier - This is a unique identifier for each meter. It is recommended that the AEP format be adopted. This format includes codes to identify the following:
  - Utility originally holding, title to the meter
  - Meter vendor
  - Meter model

- Meter serial number assigned by the meter vendor
  - Customer specified user-defined value
7. Reading status - Each reading will be tagged with a status. This status may indicate such items as whether the data is an initial read, a re-read, or has been validated.

Residential meter reading data shall be transmitted to the non-wire data warehouse on a daily basis.

### COMMERCIAL/INDUSTRIAL DATA DEFINITION

For the commercial and industrial customers the minimum meter data exchange includes all residential customer data items. In addition, we recommend meter readings for commercial and industrial Customers also include:

1. Kilovolt-hours
2. Kilovoltamp-hours
3. Ampere-square-hours
4. Volts-squared-hours

Commercial/industrial consumption data shall be transmitted to the associated non-wire services company and the non-wire data warehouse on an hourly basis.

Many industrial customers may demand additional power quality metering services such as voltage and harmonics. We view these additional meter items as value added services that will be offered as competitive incentives by the various service providers. Therefore, power quality and other specific industrial metering items are not recommended as part of the minimum standard.

### DEMAND DATA DEFINITION

Demand data (i.e., kilowatts, kilovars, kilovoltamps, etc.) are not included in the required minimum data set. While these types of data will be of importance to non-wire cycle services, this information can be derived from the usage data.

### SERVICES STATUS DATA DEFINITION

Some metering devices are capable of reporting status changes. These status reports generally are initiated by some event and therefore are not appropriate for periodic reporting. When applicable, the meter-reading company shall provide meter data for status changes, such as:

- Outage — service interruption or restoration

- Tamper — device tampering detection
- Power quality — quality threshold detection

The preliminary definition of data to be reported for status reports includes:

1. Service point identifier
2. AEP meter identifier
3. Date and time of status report
4. Service status

Standards for identifying the various types of statuses and their associated data items have yet to be developed.

### High-Speed Data Communications Infrastructure

Enron strongly supports the idea of establishing a private data communications network to be shared by all companies in the Non-Wire Industry. This network would allow for the real-time exchange of data between any authorized entities. Initially, hourly usage information would be the most common type of data being transmitted, however other types of data would also be available. MCI is in the process of establishing a similar network (REMnet) for use by the Independent Service Operator (ISO), Power Exchange (PX), Generation Companies (Genco's), and Schedule Coordinators. Although a gateway between the two networks is certainly feasible, our suggestion is that a separate network be established to support the open access of Non-Wire information. Communication bandwidth permitting, we suggest the two networks lie as similar as possible.

This network and a common set of open protocols would be designed to support the transmission of standard utility industry transactions. Knowing the appropriate network transaction protocol, an entity could, for example, examine a specific customer's hourly consumption information without necessarily knowing where the customer's meter information is physically located.

Some of the general design concepts anticipated for this type of network are as follows:

#### NETWORK SOFTWARE

The non-wire network should include software that supports data communications within the non-wire network configuration and that supports communications with the external ISO network to which the non-wire services network is connected. Network software for communications, security, services, and management should be provided.

#### NETWORK COMMUNICATIONS

Users and processors should be able to communicate with the non-wire network of local and remote workstations, processors, and peripheral devices. The non-wire network design should provide a common communications network, using TCP/IP. The software should link dissimilar hardware

nodes from multiple suppliers, including terminals, workstation, and processors, into a common data communications network allowing communications among these devices.

## NETWORK SECURITY

The non-wire network should allow access by authorized non-wire network users at local and remote workstations, and/or PCs. Network security features should be provided which control user access to the network. A user authentication scheme requiring at least a user identification and password should be provided to confirm the user's authorization before the user may request a connection to any network node. Access to the management and administration functions of network devices (such as bridges or routers) should be further protected by a similar authentication scheme.

## NETWORK SERVICES

Network services should be provided for non-wire services users. The network management software should provide monitoring and routing control for the users of these services. Network services should include:

1. Network file management and transfer
2. Network printing management
3. Remote procedure call
4. Remote terminal session
5. Network time synchronization
6. Network backup
7. Electronic mail (X.400, or SMTP)

Network software should include the client node software that provides client connections to the non-wire network. Client software should be provided for each type of network node connection required by the vendor's system configuration. The network security software shall control access to these services.

## NETWORK MANAGEMENT

The non-wire network should interface with a standard network management system that encompasses security management, accounting management, configuration management, fault management, and performance management. The underlying management protocol for the network should be SNMP running over TCP/IP. All non-wire network resources should be SNMP

compliant. The non-wire service provider may provide SNMP proxy agent software for those resources that are not typically SNMP compliant.

## NON-WIRE NETWORKING ISSUES

Concerns relating to the communication infrastructure that must be addressed include:

1. Feasibility and alternatives for establishing the communications infrastructure within the time frame required for use by January 1, 1998.
2. Developing adequate bandwidth to accommodate the data volume in a timely manner.
3. Defining authorization requirements and certification procedures for gaining access or revoking access to the network.
4. Addressing data confidentiality issues.
5. Creating application standards for transactions performed on the network.

## SUMMARY OF RECOMMENDATIONS

The following summarizes the recommendations set forth in this document:

1. Provided the communication architecture and protocols are open, Enron recommends the competitive market place be allowed to determine which, if any, of the meter-to-device protocols is adopted as a standard.
2. Each meter reading company should be allowed to use the communications infrastructure of its choice to collect meter reading data so long as the architecture and protocols are open.
3. Each meter reading company should be required to maintain a real-time database of meter reading data that is accessible via on-line data communications to all authorized parties.
4. A statewide data communications infrastructure should be created so that meter data may flow between the meter reading company who collects the data and the various non-wire entities who need the data.
5. The meter reading company should maintain the meter reading data on their local server.

6. A data warehouse should be used as a collection point for meter data and to function as a centralized clearinghouse for non-wire data.
7. A standard definition for the minimum meter reading data for each major type of service must be established.
8. We recommend that a task force be established to develop the technical specifications required for creating the non-wire communications infrastructure.

### METERING AND BILLING CYCLE

As happens under the current regulatory regime, the first step in the billing cycle will be to read the meter. The entity providing meter reading services (either the Electric Generation Supplier ["EGS"] or the incumbent utility) will read the customer's meter. If an EGS reads the meter, it could transmit the meter data to the utility. This can be done by a variety of means: electronic data interface (EDI), by tape, phone line, etc. In retail pilots occurring in New England, meter read information is transmitted through a secure electronic mailbox. The information transmitted monthly will include the customer account number, date of last and current meter read, and kWh used. Historical customer usage information will have been transmitted when the customer switches energy providers.

With the meter read date, the EGS will generate a bill for the customer's entire electric service, including distribution, transmission, energy and other charges. This is an important vehicle for the EGS to add value to the customer in terms of information, opportunities to buy other products, and so on. In addition, cost savings and efficiencies will be created. The utility will send one invoice — to the EGS — instead of tens of thousands to individual customers. An EGS may bundle its energy services with billing for other products, provide electronic billing and payment options, and offer other ways to reduce paper and simplify customers' bill-paying activities.

The EGS will have an established customer relationship with the utility, defined by a contract. The utility, consistent with rules being developed by the Commission, may require deposits, a line of credit or other financial tools to assure payment from an EGS. Thus,

the utility will replace payment processing, collection, and write-offs from thousands of customers with one secure transaction. The EGS could pay the utility for distribution, transmission, etc., if relevant. The utility will have one secure account receivable and receive one wire transfer or check based on the Commission's credit standards. The EGS also will remit any taxes, regulatory fees, or other required collections from customers to relevant agencies. Again, this is a standard transaction that can be performed by any entity that is billing customers; it is not a monopoly function. Indeed, each and every one of the billing functions described herein can be efficiently performed by non-utility providers, frequently at lower costs.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

SURREBUTTAL TESTIMONY OF

**JEFFREY A. BROWN**

ON BEHALF OF  
ENRON POWER MARKETING INC.

DOCKET NO. R-00974104

RE: APPLICATION OF DUQUESNE LIGHT  
COMPANY FOR APPROVAL OF  
RESTRUCTURING PLAN

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DECEMBER 11, 1997

**DOCKETED**  
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1     **Q.     PLEASE STATE YOUR NAME AND TITLE.**

2     A.     My name is Jeffrey A. Brown. I am the Director of Government Affairs for Enron  
3            Corp., where my primary role is to coordinate Enron's efforts in the areas of  
4            unbundled and competitive metering, billing and customer care. I have also provided  
5            direct testimony in this case and in the companion West Penn Power Company  
6            Restructuring case.

7     **Q.     WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

8     A.     I will respond to the testimony of Duquesne witness Allison (Duquesne St. No. 8-R)  
9            regarding the unbundling of revenue cycle services and his comments about  
10           Duquesne's Customer Advanced Reliability System ("CARS"). I will also respond to  
11           the comments of William Schmitt on behalf of the International Brotherhood of  
12           Electrical Workers ("IBEW") regarding competition in the revenue cycle metering,  
13           billing and information service areas. Mr. Schmitt's rebuttal testimony in the PP&L  
14           Restructuring case at Docket No. P-00973954 has been incorporated in and adopted by  
15           IBEW witness Timothy Moran in his rebuttal testimony in this case.

16    **Q.     WHAT IS DUQUESNE'S POSITION ON UNBUNDLING REVENUE CYCLE**  
17    **SERVICES?**

18    A.     It erroneously contends that it is premature to do so at this time, and seeks to delay  
19           such unbundling until it is able to complete the installation and entrenchment of its  
20           own advanced metering system — CARS. It attempts to use the Commission's  
21           proposed metering regulations to support its own delaying tactics.

22    **Q.     DOESN'T MR. ALLISON AGREE WITH YOU THAT PENNSYLVANIA CAN**  
23    **IMPLEMENT OPEN ACCESS WITH EXISTING METERS?**

1 A. Yes. But while he admits this is so (at 8, line 6), he claims that implementation of  
2 unbundling and competition for these services should await the installation of cheaper  
3 and more advanced meters.

4 **Q. DO YOU AGREE WITH THIS REASONING?**

5 A. No. This is not a reason to delay unbundling. It is rather a reason to allow such  
6 unbundling to take place at the time competitive direct access is phased in so that any  
7 such installation by Duquesne will take place under a competitive environment rather  
8 than, as Duquesne seeks, a regulated environment, where ratepayers will have to bear  
9 the cost of such meters and the CARS. As I will show, Duquesne seeks, through its  
10 CARS proposal, to be rewarded for its inertia in not previously implementing such  
11 deployment. Mr. Allison's testimony (at 8, lines 6-11) in fact demonstrates that there  
12 is little incentive for utilities to develop and introduce new technologies in a regulated  
13 environment and provides additional support for requiring immediate competition in all  
14 non-wire services rather than Duquesne's efforts for further delay. Duquesne  
15 essentially requests the Commission to delay the provision of the innovative services  
16 which will result from a competitive environment until it can "catch up" and offer  
17 such innovation itself. Such a view is self-serving and is not in the best interests of  
18 consumers in its service territory.

19 **Q. HOW DOES DUQUESNE SEEK TO DELAY UNBUNDLING?**

20 A. Duquesne attempts to create barriers to competition in revenue cycle services by  
21 contending it is too confusing for consumers to choose such services in conjunction  
22 with direct access because it will interfere with developing direct access to the retail

1 generation market. This is nonsense. Duquesne wrongly equates choice with  
2 confusion. There is no reason why competition should not be implemented and  
3 advanced in all possible areas. So long as there is an adequate statewide consumer  
4 education program, as advocated by Mr. Muench, consumers will understand their  
5 options and be able to make reasonable choices.

6 **Q. MR. ALLISON FURTHER CLAIMS THAT THERE ARE A NUMBER OF**  
7 **DETAILS TO WORK OUT. DO YOU AGREE?**

8 A. This is true, but we have more than a year to work out these details. Considering the  
9 progress that has been made in restructuring since the Competition Act took effect in  
10 January, 1997, I have no doubt that the PUC and the stakeholders can resolve these  
11 additional details in the next several months, well in advance of the implementation of  
12 direct access on January 1, 1999.

13 **Q. IS THERE EXPERIENCE ELSEWHERE IN UNBUNDLING REVENUE CYCLE**  
14 **SERVICES?**

15 A. Yes. While Mr. Allison claims that the retail access programs in Pennsylvania and  
16 elsewhere support his position, California and Arizona have both resolved such details  
17 and are unbundling those services. Other states, understanding and recognizing the  
18 benefits of competition, are also moving toward the unbundling of these services. I  
19 would also note that West Penn Power Company, in a companion case, has agreed to  
20 the unbundling and competitive supply of billing. Mr. Allison's reference to  
21 Pennsylvania, of course, is misplaced because it refers only to a pilot program for  
22 which there was not sufficient time to implement full unbundling and competitive  
23 entry into revenue cycle services.

1 **Q. DUQUESNE CLAIMS IT WILL UNBUNDLE SERVICES IN THE FUTURE IF**  
2 **NECESSARY (P. 7). DO YOU HAVE ANY COMMENT?**

3 A. Yes. Duquesne states that it will unbundle these services from current rates and give  
4 customers that choose alternatives a credit based on avoidable costs. This is totally  
5 unacceptable. Unbundling must be based on fully embedded costs as pointed out by  
6 Mr. Reising in his testimony. Duquesne, in effect, is asking both competitors and  
7 ratepayers to subsidize its costs by limiting the customer credit to incremental costs.  
8 In a competitive environment, this is completely inappropriate, and an incremental cost  
9 credit in such a small amount will effectively stifle competition.

10 **Q. WHAT IS YOUR POSITION REGARDING DUQUESNE'S "CUSTOMER**  
11 **ADVANCED RELIABILITY SYSTEM" ("CARS")?**

12 A. This is an advanced metering system which Duquesne has engaged Itron to install.  
13 Duquesne is attempting to have its ratepayers pay for this gold-plated system, which  
14 will provide more services than required by many customers, and to utilize the system  
15 in a way that will prevent competition.

16 **Q. WHY DO YOU CALL IT A "GOLD-PLATED SYSTEM"?**

17 A. For example, Mr. Allison states on several occasions that it will provide actual data  
18 rather than estimated load profiles (at 11, lines 6-8; 13, line 4; 16, lines 16-20). But  
19 for many residential customers, load profiles are sufficient. This system, however, will  
20 provide the specific data, at a higher cost, whether or not it is necessary. Instead of  
21 making these services optional and competitive, Duquesne wishes to make them  
22 standard and to have all ratepayers pay for them, whether or not they need them.  
23 Accordingly, its comment that CARS does not preclude the unbundling of billing or

1 other services in the future is not accurate, because making the costs of CARS part of  
2 the T&D services for which all ratepayers must pay, would effectively preclude any  
3 competition.

4 **Q. BUT HASN'T THE PUC APPROVED THIS SYSTEM?**

5 A. Yes, but in a regulated environment prior to the enactment of the Customer Choice  
6 Act. While Duquesne received permission to implement this system before the  
7 Customer Choice Act was enacted, it is inappropriate for it to load all its costs in  
8 completing the system on ratepayers. As I previously stated (Enron St. No. 3.0 at 13),  
9 if Duquesne still believes it is a reasonable effort, it should transfer the system to and  
10 have the costs paid by a competitive affiliate where its shareholders bear the risk rather  
11 than ratepayers.

12 **Q. BUT MR. ALLISON CLAIMS THAT DUQUESNE WILL NOT INCUR ANY**  
13 **CAPITAL COSTS BECAUSE OF ITS CONTRACT WITH ITRON (page 15).**

14 A. Yes, but that is a misleading statement. While Duquesne may not be expending  
15 capital funds up front, it will be paying for the system over the 15-year period of the  
16 contract and will pass on these costs to ratepayers through its T&D rates.

17 **Q. DO YOU AGREE WITH MR. ALLISON'S POSITION REGARDING THE**  
18 **BENEFITS OF DUQUESNE'S CARS SYSTEM (Duquesne Statement No. 8-R at**  
19 **10)?**

20 A. No. While he may be correct that it will enable the provision of better distribution  
21 service, I am not convinced that it will do so at a lower price. But I am very certain  
22 that it is not pro customer choice, as he claims, because it seeks to retain Duquesne's  
23 bundled monopoly position, which is the antithesis of customer choice. Indeed, if the  
24 system has all the benefits claimed by Mr. Allison, Duquesne would not attempt to

1 delay the advent of competition, but would be anxious to utilize the CARS system as a  
2 competitive vehicle.

3 **Q. WHAT ABOUT THE BENEFITS THAT DUQUESNE CLAIMS THAT CARS**  
4 **WILL PROVIDE (pages 12-14)?**

5 A. I don't question that the CARS system can do these things, but EGSs could provide  
6 these same benefits, competitively, through furnishing of advanced metering.

7 However, if it were done competitively as I advocate, customers could choose the  
8 advanced metering benefits they require and would not be required to pay the cost  
9 whether or not they require the feature. As I stated, many of these items are "gold-  
10 plated" and not required by all parties. Moreover, in a competitive market, the same  
11 metering benefits would undoubtedly be provided to ratepayers at lower prices.

12 Finally, while the CARS system appears to be a reasonable system, it is not the only  
13 such system, and customers should be permitted to choose the metering services they  
14 desire from a preferred provider.

15 **Q. DOESN'T DUQUESNE STATE IT WILL PROVIDE SERVICES TO**  
16 **SUPPLIERS THROUGH CARS?**

17 A. Yes. Duquesne states it will provide retail suppliers equal access to the service  
18 offerings of the CARS system, but it is significant that in describing these services,  
19 Mr. Allison states that CARS will allow Duquesne to offer these services (page 13,  
20 lines 3-10); it is Duquesne that is providing all these services through its CARS in its  
21 traditional utility mode rather than through an open competitive system. Duquesne is  
22 attempting to retain monopoly control (page 16, line 1-5). Duquesne is also requiring  
23 ratepayers to fund this system under a 15-year obligation. Therefore, even if

1 Duquesne loses customers for such services in a competitive market, it would  
2 presumably still attempt to collect those costs in its T&D rates. Combining  
3 Duquesne's CARS proposal with its proposal to allow only an incremental cost credit  
4 rather than fully embedded costs at the time of implementation of revenue cycle  
5 service competition will surely stifle competition and give Duquesne an unfair  
6 competitive advantage to the detriment of other suppliers and, ultimately, customers.

7 **Q. DO YOU HAVE ANY COMMENT ON THE COST OF THESE SERVICES?**

8 A. Yes. Mr. Allison speaks of the fees that will be charged by Itron at page 18. I  
9 believe that a competitive market would improve these prices.

10 **Q. WHAT IS MR. SCHMITT'S POSITION REGARDING THE UNBUNDLING OF**  
11 **BILLING AND METER SERVICES?**

12 A. He too believes that such unbundling should not be implemented at this time.

13 **Q. WHAT IS THE BASIS FOR HIS CONTENTION?**

14 A. He implies that unbundling and competitive entry into these service areas is contrary to  
15 Pennsylvania's Act and claims that it could inhibit direct access and threaten customer  
16 service and safety.

17 **Q. DO YOU AGREE WITH MR. SCHMITT'S ARGUMENTS?**

18 A. No.

19 **Q. WITH RESPECT TO THE FIRST POINT, RELATING TO THE**  
20 **COMPETITION ACT, DO YOU BELIEVE MR. SCHMITT'S SUGGESTION IS**  
21 **CORRECT?**

22 A. That is obviously a legal question, for the Commission and the courts to answer;  
23 however, it is my understanding that the Commission has ruled that such unbundling  
24 and competitive entry is legally permissible. On July 11, 1997, the Commission issued

1 its Final Order on Guidelines for Maintaining Customer Services at the Same Level.<sup>11</sup>

2 In this “Customer Services Order,” the Commission recognized the right to unbundle  
3 and competitively provide the billing and customer service functions under the  
4 Competition Act. The Commission stated:<sup>12</sup>

5 [W]e simply disagree with the conclusions . . . that  
6 only EDCs can provide these customer service  
7 functions. We submit that there is nothing in the  
8 Act that would prohibit the supplier single bill  
9 option and supplier complaint handling. Although §  
10 2807(C) recognizes that the EDC “may be”  
11 responsible for the billing of all electric services,  
12 there is nothing in this passive provision or  
13 anywhere else in the Act that makes the EDCs the  
14 exclusive providers of these customer service  
15 functions.

16 We believe that the Act’s reference to the EDC’s  
17 responsibility to provide customer service functions  
18 under § 2807(D) is intended to maintain the status  
19 quo and is merely a reflection that the EDC must  
20 stand ready to provide these customer service  
21 functions. However, concerning the two specific  
22 customer service functions at issue; namely, billing  
23 and complaint resolution, we do not read this  
24 provision or any other provision of the Act as  
25 excluding suppliers from providing these functions.  
26 In fact, we believe this interpretation is consistent  
27 with the declared policy of the Act to create a  
28 competitive market for the generation of electricity.

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<sup>1</sup> Final Order re: Guidelines for Maintaining Customer Services at the Same Level of Quality Pursuant to 66 Pa. C.S. § 2807(d), and Assuring Conformance with 52 Pa. Code Chapter 56 Pursuant to 66 Pa. C.S. § 2809(e) and (f), Docket No. M-00960890F.0011 (July 11,1997).

<sup>2</sup> Id. at 10-11.

1 The Commission did not implement competition for revenue cycle services  
2 immediately but retained the issue it as an option to be explored in the context of the  
3 restructuring filing of each utility. For the reasons set forth in my direct testimony, I  
4 continue to believe that it is in the interest of consumers to implement this option at  
5 this time.

6 **Q. WHAT POSITION HAS THE COMMISSION TAKEN REGARDING**  
7 **METERING AND METER-READING?**

8 A. The Commission reviewed the provision regarding meter reading under § 2807(d) of  
9 the Competition Act in its recent Customer Services Order and has at this time  
10 required that all “physical activity” relating to metering be performed by the EDC.<sup>3</sup>  
11 This matter is being further considered at the Commission’s metering docket<sup>4</sup> where  
12 the Commission has recently issued an order proposing regulations.<sup>5</sup> The  
13 Commission’s Customer Services Order would appear to allow a competitive supplier  
14 to act as the customer’s agent to purchase the meter and then read the meter, if it can  
15 be done nonphysically, so long as the meter is physically installed by the EDC.<sup>6</sup> That  
16 Order specifically states that restructuring plans “should allow for the option of  
17 customer choice of meter;” and that while the Commission’s current policy requires  
18 the EDC to perform physical meter reading even for those customers who elect  
19 generation suppliers, “nonphysical meter reading” could be performed by other entities,

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<sup>3</sup> Id. at 22-23, 26.

<sup>4</sup> Docket No. M-00960890F.0009.

<sup>5</sup> Order entered November 24, 1997

<sup>6</sup> Customer Services Order at 22-23.

1 which would include the competitive supplier. This provision is also contained in the  
2 Commission's proposed regulations. Reading this provision in conjunction with the  
3 Commission's ruling on the unbundling of the billing and customer service functions,  
4 there is, in my opinion, no rational or logical distinction among these functions which  
5 would preclude the unbundling and competitive entry into metering and metering  
6 functions. The same rationale which allows the unbundling of billing will allow the  
7 unbundling of metering. The proposed regulations also recognize the ability and right  
8 of the EGS to read advanced meters, but propose to keep the physical aspects of  
9 metering, including the physical reading, with the EDC. Since the supplier will have  
10 the ability to read the meter remotely, it appears that the only "physical" reading is the  
11 two-year physical examination under Chapter 56 to make sure that a meter is working  
12 properly.<sup>7</sup> Enron expects to comment fully on this proposed rulemaking.  
13 Nevertheless, while the Commission's final resolution of metering has not yet been  
14 issued, there is no basis for Mr. Schmitt's suggestion that unbundling metering and  
15 nonphysical meter reading is contrary to the Competition Act.

16 **Q. DO YOU AGREE WITH MR. SCHMITT'S SUGGESTION THAT**  
17 **DEREGULATING BILLING AND METERING SERVICES WILL INHIBIT**  
18 **DIRECT ACCESS?**

19 A. No. Mr. Schmitt simply claims that having the EDC provide the billing meter will  
20 provide customers more flexibility in their choice of suppliers and eliminate any  
21 possibility that customers will be tied to a long-term arrangement with a supplier by  
22 virtue of the fact that the supplier installs the billing meter. However, that same

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<sup>7</sup> 52 Pa. Code § 56.12(5)(ii).

1 argument applies with even greater force to Duquesne because Duquesne is the  
2 incumbent. Therefore, if Mr. Schmitt's hypothesis is correct, Duquesne's own  
3 continued furnishing of the meter would make it difficult for consumers to exercise  
4 their choice to leave Duquesne to change suppliers. Such a result would thwart the  
5 whole purpose of the Competition Act to promote competition and choice. The  
6 obvious answer to this "problem" is that the mere fact that a meter is installed by a  
7 certain supplier does not mean that the customer will not be able to switch from that  
8 supplier. Indeed, similar to what is taking place in the cellular phone business (where  
9 switching is common), in view of the increasingly lower prices of meters, it is possible  
10 that a supplier will give the meter free to a customer or that one competitor will pay  
11 the cost, if any, of removing another competitor's meter. In any event, the  
12 competitive market will sort out the details under which switching will be enabled and  
13 implemented. There may be attendant problems, (which can be solved) but precluding  
14 competition is not the solution. That will not only prevent the market from solving  
15 those problems, it will deprive consumers of added value.

16 **Q. MR. SCHMITT'S MAIN POINT IS THAT INSTALLING METERS MUST BE**  
17 **DONE BY TRAINED PERSONNEL WHO WORK FOR THE EDC. IS HE**  
18 **CORRECT?**

19 A. First, I would note that the current PUC view, including its proposed regulations, is  
20 that the EDC would continue to be responsible for meter installation and physical  
21 reading, so these concerns would not even arise. But if the EDC did provide all such  
22 services, Mr. Schmitt is only correct regarding his first contention but not regarding  
23 his second. Clearly, meter installation and repair need to be conducted by properly

1 trained personnel. The contention that only employees who work for an EDC are  
2 capable of being so trained is obviously not supportable. Mr. Schmitt's concerns can  
3 and should be addressed by having the Commission establish minimum qualifications  
4 and training for installation personnel and to require EGS services to meet the same  
5 service standards as the EDC.

6 There is no reason why EGS personnel cannot perform the meter and billing  
7 related services with at the same level of competence and safety as customers presently  
8 enjoy. In fact, if history is any guide, a competitive market would enhance the service  
9 provided. Indeed, in the years before the break-up of AT&T, AT&T used to argue  
10 that only equipment that it owned and controlled could safely be installed and  
11 maintained on the network — and then only by Bell System employees — and that  
12 competition would result in all types of service inadequacies. We can now look back  
13 and acknowledge that those concerns were invalid. Indeed, most of us take for granted  
14 how much more selection we have in the purchase of phone equipment, how much  
15 more convenient it is to have a phone installed and how phone equipment has  
16 improved through innovation.

17 The same type of concerns were raised in the early days of ATMs. Yet  
18 today, the various participants in that industry have so arranged among themselves that  
19 an individual with a card can obtain funds virtually anywhere in the world for little or  
20 no charge. Concerns about customer confidentiality and accuracy have virtually  
21 disappeared. I see no reason why the participants in the competitive metering and  
22 billing business could not similarly work those details out with the assistance of the

1 regulator — in this case the Pennsylvania Public Utility Commission. I believe that  
2 the methodology used by the Commission through task forces, working groups and  
3 generic docket proceedings will enable all of the problems arising in the transition to a  
4 competitive environment for metering and billing to be resolved. One must note that  
5 the same types of concerns were raised — and rejected — as reasons to hold up  
6 unbundling by the California PUC. Obviously, if those concerns can be overcome in  
7 California, national standards and protocols will soon be available to make the  
8 transition here smooth.

9 More important, we are dealing with an act that fosters competition. There is  
10 no reason for the Commission to forego the opportunity to foster competition in this  
11 regard at this time. Mr. Schmitt wishes to forego additional competition by raising all  
12 types of problems and concerns. These are all resolvable and require only an order to  
13 unbundle and work out the details.

14 **Q. DO YOU HAVE ANY FINAL COMMENT?**

15 **A.** Yes. Many of both Mr. Allison's and Mr. Schmitt's arguments arise from their failure  
16 to confront the competitive offering of non-wire services in the marketplace. I  
17 categorically do not accept the argument that consumers are incapable of making  
18 intelligent decisions and that a regulated utility is in the best position to make "one-  
19 size-fits-all" decisions for them. Overall, my proposal gives consumers more choices;  
20 Messrs. Allison's and Schmitt's proposals takes choices away. At Enron, we are  
21 confident that we can provide value to consumers — either through lower costs and/or  
22 enhanced services. If we can't, Enron is the only one that loses.

1 Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

2 A. Yes.

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF

**GAYLE MUENCH**

ON BEHALF OF  
ENRON POWER MARKETING INC.

DOCKET NO. R-00974104

RE: APPLICATION OF DUQUESNE LIGHT  
COMPANY FOR APPROVAL OF ITS  
RESTRUCTURING PLAN

NOVEMBER 7, 1997

1 Q. PLEASE STATE YOUR NAME AND TITLE?

2 A. My name is Gayle Muench. I am Director of Enron Energy Services, Consumer  
3 Services Group, and am responsible for Enron's retail sales activities with  
4 residential consumers in Pennsylvania.

5 Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL  
6 AND BUSINESS BACKGROUND?

7  
8 A. I have a Masters of Business Administration from Southern Methodist University  
9 and a Bachelor of Science in Petroleum Engineering from Texas A&M University.  
10 I joined Enron Energy Services in May of 1997. Prior to that time, I was a director  
11 of Enron Capital & Trade Resources in oil and gas financing based in Houston. At  
12 ECT, I was responsible for managing several significant energy relationships. I  
13 joined ECT in 1994 from Delhi Gas Pipeline Corporation where I worked in gas  
14 sales, gas acquisition, corporate planning and corporate engineering.

15 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

16 A. I will present Enron's testimony and respond to Duquesne Power Company's  
17 ("Duquesne") testimony pertaining to the following issues:

- 18 (1) The unbundling of billing and bill format that Duquesne should be  
19 required to implement as part of its restructuring.
- 20 (2) The billing options that should be permitted, including the "Supplier  
21 Complete Bill Option."
- 22 (3) Procedures governing the phase-in of competition.

- 1 (4) Customer selection and "slamming."  
2 (5) "Customer Information" and its relationship to the "Customer  
3 Education Program" required in connection with Duquesne's  
4 proposed restructuring.  
5 (6) Duquesne's Universal Service Program in a competitive  
6 environment.  
7 (7) Several miscellaneous issues.

8 I. **BILLING**

9 Q. **WHAT IS ENRON'S CONCERN REGARDING BILLING?**

10 A. Billing is a critical component in the development of a truly competitive retail  
11 electric market. It is my understanding that the Electricity Generation Customer  
12 Choice and Competition Act ("Competition Act") expressly gives consumers the  
13 choice as to whether they want to be billed by their incumbent monopoly or by  
14 their electric generation supplier. The fact that the General Assembly expressly  
15 mandated customer choice for billing evidences support for a policy that  
16 recognizes that competition in the billing area can provide significant benefits to  
17 consumers, and that suppliers should be permitted to attract customers through  
18 their billing services as well as with other products and services.

19 Q. **HOW DOES BILLING PLAY A ROLE IN COMPETITION?**

20 A. Enron takes pride in its billing and customer service activities, and intends to  
21 provide Pennsylvania customers with the highest quality billing services possible.

1 Obviously, the customer's understanding of his or her bill is an important  
2 component of the service quality issue. If a customer does not understand a  
3 utility's or supplier's electric bill, the customer will seek a competitive option  
4 which provides a more understandable bill.

5 Accordingly, providing an understandable bill that meets all of the  
6 customer's needs is an important part of attracting customers to Enron's services.  
7 It is equally important that Enron's customers understand the nature of the  
8 products they are purchasing and the prices they are paying. If consumers do not  
9 or cannot understand their charges, they will likely stay with their incumbent  
10 provider.

11 **Q. SHOULD THE COMMISSION REQUIRE THAT BILLS BE BROKEN**  
12 **DOWN OR UNBUNDLED IN ANY SPECIFIC WAY?**

13  
14 A. Yes. It is my understanding that electric distribution companies are required to  
15 unbundle customer bills to the extent necessary to permit customers to determine  
16 what service and service functions they are paying for, and at what rate. This  
17 aspect of billing and customer information is extremely important. It is Enron's  
18 view that unbundling or itemizing the charges on the distribution company's bill is  
19 one of the primary focal points of the competitive environment.

20 In order to provide consumers with adequate information to determine the  
21 basis for all of the various charges included in the distribution company's bill, the  
22 bill itself must be unbundled beyond the basic categories of distribution,

1 transmission and generation that Duquesne proposes. Proper unbundling requires  
2 utilities such as Duquesne to itemize charges for non-wire services like billing and  
3 collection, metering and other customer services, as well as for their Intangible  
4 Transition Charges ("ITC"), Competitive Transition Charges ("CTC") and  
5 Universal Service Surcharges, so that consumers can fully understand what they  
6 are paying for and evaluate their various competitive options. Mr. Reising  
7 discusses this concept and the specific amounts which are appropriately assessed  
8 for each component of the distribution charge in greater detail in his testimony.  
9 (Enron St. 2.0).

10 **Q. ARE THERE OTHER REASONS WHY BILLING AND COLLECTION**  
11 **CHARGES AND OTHER NON-WIRE SERVICE CHARGES SHOULD BE**  
12 **UNBUNDLED?**

13  
14 A. Billing and collection are themselves competitive functions that a generation  
15 supplier should have the option of providing. In order to do so, however, it is first  
16 necessary that Duquesne be required to separate and unbundle their billing and  
17 collection functions as part of their restructuring. Duquesne indicates that it will  
18 not do so. (Duquesne St. No. 8 at 16). Otherwise, customers would be required to  
19 pay for the utility's billing and collection activities even though they choose to  
20 receive billing services from their supplier. Furthermore, absent bill unbundling,  
21 consumers will be unaware of what amount they are presently paying the utility for  
22 the billing and collection function, and will have no basis of comparison for

1 competitive billing options offered by suppliers. This would clearly frustrate the  
2 development of a competitive market.

3 **Q. HAS THE COMMISSION TAKEN A POSITION ON WHETHER BILLING**  
4 **AND COLLECTION SHOULD BE UNBUNDLED?**

5  
6 A. It is my understanding that the Commission has ruled that such unbundling is  
7 legally permissible. On July 11, 1997, the Commission issued its Final Order on  
8 Guidelines for Maintaining Customer Services at the Same Level.<sup>1</sup> In this  
9 "Customer Services Order," the Commission recognized the right to unbundle and  
10 competitively provide the billing and supplier complaint functions under the  
11 Competition Act. The Commission stated:<sup>2</sup>

12 [W]e simply disagree with the conclusions. . . that only EDCs can  
13 provide these customer service functions.

14  
15 The Commission did not implement this guideline immediately but retained it as  
16 an option to be explored in the context of the restructuring filing of each utility.

17 **Q. IS UNBUNDLING THE COST OF BILLING AS WELL AS OTHER NON-**  
18 **WIRE SERVICES AN IMPORTANT COMPONENT OF COMPETITION?**

19  
20 A. Yes. Unbundling the cost of providing all non-wire services, like billing and  
21 collection, metering, and consumer services, which support not only distribution  
22 but also transmission and generation, and transferring responsibility for their

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<sup>1</sup> Final Order re: Guidelines for Maintaining Customer Services at the Same Level of Quality Pursuant to 66 Pa. C.S. § 2807(D), and Assuring Conformance with 52 Pa. Code Chapter 56 Pursuant to 66 Pa. C.S. § 2809(E) and (F), Docket No. M-00960890F.0011 (Order entered July 11, 1997).

<sup>2</sup> Id. at 10-11.

1 development and delivery from the monopoly to the marketplace is crucial to the  
2 success of retail restructuring. Because these types of services represent such a  
3 large proportion of small consumers' monthly bills, competitive suppliers may be  
4 unable to market effectively to these small customers without comprehensive  
5 unbundling. Given adequate protections for service reliability and assurances that  
6 the alternative supplier will adhere to all consumer protection requirements (an  
7 assurance which Enron, for one, is committed to providing), the Commission  
8 should recognize the need for competition in these service categories when market  
9 participants, like Enron, stand ready, willing and able to offer these services.

10 The benefits of competitive choice clearly extend beyond generation  
11 services in their strictest form, and include many non-wire services. Instead of  
12 looking for competitive *exceptions* to the monopoly "rule," the Commission should  
13 presume that all services and service functions are properly subject to competition,  
14 and should identify only those few and narrow areas where compelling  
15 circumstances may justify maintaining the service as a monopoly. Mr. Brown  
16 discusses the competitive benefits from unbundling in greater detail in his  
17 testimony (Enron St. 3.0)

1     **II.     THE SUPPLIER SINGLE BILL OPTION**

2     **Q.     WHAT BILLING OPTIONS SHOULD BE IMPLEMENTED AS PART OF**  
3     **THE UNBUNDLING OF BILLING AND COLLECTION?**

4  
5     A.     The Commission should require Duquesne to implement and comply with full  
6           customer choice as part of their restructuring.  As applied to billing services, this  
7           objective requires that customers be permitted to choose one of the following  
8           billing options:

- 9           (1)     Single EDC bill.  Under this option, Duquesne would provide all  
10           billing services — for the services Duquesne provides and on behalf  
11           of the customer’s supplier of choice — including billing for non-wire  
12           services and the generation portion of the bill;
- 13           (2)     The Two Bill Option.  Under this option, Duquesne would continue  
14           to bill for Duquesne’s distribution, transmission and competitive  
15           transition charges (i.e., CTC and ITC charges), while suppliers  
16           would provide a separate bill for all services the customer chooses to  
17           receive from the supplier (including generation services and other  
18           non-wire services to the extent the customer chooses to utilize the  
19           supplier for such services);
- 20           (3)     The "Supplier Single or Complete Bill Option."  Suppliers would  
21           provide a single or complete bill in which the supplier would bill not  
22           only for the services that it is providing (i.e., generation and, if  
23           chosen by the customer, non-wire services) but also for services  
24           provided by Duquesne including transmission, distribution, CTC and  
25           ITC.

1     **Q.    WHAT ARE THE BENEFITS OF THE "THREE-OPTION" APPROACH?**

2     A.    This "three option" approach would provide enormous benefits to consumers and, I  
3         believe, is fully consistent with the Competition Act's mandate to bring  
4         competition to the electric generation market to the greatest extent possible. It is  
5         also consistent with the approach just recently adopted in California, one of the  
6         first states to make final determinations on these issues. Most importantly, it  
7         would allow the Commission to implement customer service and billing policies  
8         which not only serve to maintain present levels of service and customer protection,  
9         but which will allow suppliers to add value for customers by enhancing and  
10        improving present levels of customer service in furtherance of the objectives of  
11        customer choice. Overall, permitting the supplier to be the "single point of  
12        contact" by providing a single bill is one of the primary means of adding value to  
13        generation supply services, and is as important to meaningful market development  
14        as any other part of the competitive market restructuring.

15    **Q.    WHY ARE COMPETITIVE BILLING OPTIONS SO IMPORTANT?**

16  
17    A.    The "Supplier Complete Bill Option" will allow suppliers to offer a more  
18         comprehensive service to consumers, which would not only provide energy supply  
19         at competitive rates, but would also permit the supplier to add value to generation  
20         service through service functions such as metering, demand management,  
21         specialized or customized billing and "TLC" customer service. Establishing  
22         billing and customer services as separate competitive services will provide

1 competitors with an incentive to bring to the market products and services that  
2 consumers desire, providing added value at a total price resulting in real savings to  
3 customers. For example, suppliers that also provide billing and customer services  
4 likely will be able to offer a whole host of heretofore unseen products and services  
5 in the billing area. Bills can communicate not only required information but  
6 information customized to a customer's special needs, such as detailed information  
7 about electric use for customers who choose time-of-use pricing, information about  
8 the amount of electricity certain appliances utilize to help consumers conserve,  
9 automatic notification of customers when electric use reaches pre-specified levels,  
10 and many other products in which customers may find value.

11 While I believe Enron will be able to provide better billing/customer  
12 services at lower rates than utility customers presently are required to pay, at  
13 worst, the Commission's directing that a "supplier complete bill option" be  
14 established and allowing suppliers to be the single point of contact with customers  
15 is a relatively simple and risk-free step which merely permits these opportunities to  
16 be offered to customers. No customer will be required to take a Supplier Single  
17 Bill Option; it will be the supplier's obligation to show customers the benefits and  
18 value that would result from agreeing to allow a supplier to provide services  
19 beyond strictly defined generation supply, including billing, metering and  
20 customer service. Furthermore, if the customer is not satisfied with any aspect of

1 the supplier's service, he or she may return to the utility or select another supplier  
2 for all or part of his or her service needs.

3 **Q. WHAT STEPS MUST THE COMMISSION TAKE TO ALLOW THE**  
4 **SUPPLIER COMPLETE BILL OPTION?**

5  
6 A. To allow the three billing service options to become a reality, the Commission  
7 must do the following:

- 8 1. Direct Duquesne to establish procedures to allow the three billing  
9 options. As the Commission has already indicated, it is likely that  
10 suppliers will offer service pursuant to any one of (or possibly a  
11 combination of) the three billing options simultaneously.
- 12 2. Require Duquesne to unbundle billing and collection services on its  
13 bills, and to credit customers electing alternative billing  
14 arrangements via suppliers in the amount of the unbundled billing  
15 charge.
- 16 3. Establish procedures to facilitate the "supplier complete bill option."  
17 Obviously, the Commission must be assured that suppliers providing  
18 complete billing and customer services will do so in compliance with  
19 established customer service rules and consumer protection  
20 requirements. Further, standards concerning remittance of charges  
21 for services which continue to be provided by Duquesne will have to  
22 be established.

1 Q. WHAT PROTECTIONS COULD BE ADOPTED TO INSURE THAT  
2 DUQUESNE RECEIVE THEIR REVENUES IN A TIMELY MANNER?  
3

4 A. These standards could include additional bonding or other appropriate financial  
5 guarantees from the billing supplier in order to provide assurances that EDC  
6 revenue as well as state taxes, etc., when collected by the single bill supplier, will  
7 be remitted in a timely and appropriate fashion.

8 A second, and potentially more efficient, approach would be for the  
9 Commission to establish the "supplier complete bill option" and then mandate  
10 EDCs, including Duquesne, to negotiate in good faith with suppliers who wish to  
11 offer such an option to customers residing in the EDC service territory. The EDCs  
12 would be required to enter into billing/customer service "interconnection  
13 agreements" with interested suppliers.

14 I understand that this is the format which is mandated by the  
15 Telecommunications Act with respect to interconnection agreements for the  
16 provision of competitive local services, and would appear to provide a useful  
17 model. In fact, California has recently adopted this model for this purpose in  
18 implementing its decision to permit customers to choose a supplier single bill.  
19 This procedure would permit the supplier — the entity most interested in obtaining  
20 such an interconnection arrangement — and the EDC — the entity most interested  
21 in assuring remittance of all revenues and associated charges — to establish non-  
22 discriminatory and uniform rules to permit the supplier complete bill option to be

1 implemented. EDCs would, quite properly, demand financial assurances in the  
2 form of letters of credit, bonds or deposits in order to assure that T&D charges and  
3 other funds are remitted. Both parties would have an interest in assuring that  
4 neither violates applicable customer service rules and protections. If a supplier  
5 and an EDC were unable to negotiate such an interconnection arrangement, or  
6 unable to agree on certain provisions, those portions could be brought before the  
7 Commission for either informal mediation or on-the-record adjudication. So long  
8 as care is taken to prevent unnecessary delay, this procedure could well result in an  
9 efficient resolution of all necessary issues by the market participants themselves  
10 rather than by regulatory fiat.

11 **Q. WHAT IS DUQUESNE'S POSITION REGARDING BILLING OPTIONS?**

12  
13 A. Duquesne assumes that it would normally be responsible for billing customers for  
14 both its unbundled, regulated services and for suppliers' charges unless a customer  
15 wishes to receive two bills (Duquesne St. No. 8 at 13-14). They also hold that it is  
16 uncertain whether these services should be deregulated in the future.

17 **Q. SHOULD DUQUESNE HAVE ANY CONCERNS**

18 A. No. Any concerns can be resolved in the various workshops initiated by the  
19 Commission. In the final analysis, it will be Enron's obligation to show customers  
20 value and benefits through its providing billing and other revenue cycle services to  
21 them. This is a risk-free approach because the customer may always reject our  
22 service or return to the EDC. By contending that alternative suppliers should not

1 even be given the opportunity to provide these services, Duquesne is attempting to  
2 eliminate customer choice.

3 **Q. DOES THE SUPPLIER SINGLE BILL OPTION ALLOW THE SUPPLIER**  
4 **TO ACT AS THE AGENT FOR THE CUSTOMER VIS-A-VIS THE EDC?**

5  
6 A. Yes, it is likely that customers that select a supplier to provide a single bill will  
7 also authorize the supplier to act as agent for the customer as the "single point of  
8 contact" with the utility. Under this scenario, Enron (or any other supplier) would  
9 act as the customer's agent for the provision of the total electric package, including  
10 the procurement of distribution, transmission, generation and non-wire services.  
11 Under such circumstances, Enron should be able to accept orders for service from  
12 customers and, upon the establishment of an agency agreement with a customer,  
13 assure the initiation of service at the customer's location. Nothing in the  
14 Competition Act that I am aware of requires that only the EDC can provide  
15 connection for customers. Essentially, Enron, through the agency agreement,  
16 would become Duquesne's customer of record and would be directly responsible  
17 for payment to Duquesne of the EDC's charges associated with delivering  
18 electricity to the customer. Such an arrangement would allow Enron and other  
19 suppliers to provide a "soup to nuts" service to customers and allow Enron to add  
20 the greatest value for the customer. This issue is of critical importance to Enron  
21 since it will allow Enron to bring the fullest benefits of competition to

1 Pennsylvania consumers and businesses through lower prices and innovative  
2 services.

3 **Q. HAS THE COMMISSION ACCEPTED THIS AGENCY ARRANGEMENT**  
4 **IN COMPETITIVE MARKETS FOR ANY OTHER UTILITY INDUSTRY?**

5  
6 A. Yes. My understanding is that the Commission has accepted agency arrangements  
7 in the natural gas industry for competitive suppliers identical to what Enron is  
8 proposing here. In fact, this relationship between customer and service provider is  
9 now prevalent in the natural gas industry for customers in markets subject to  
10 competition.

11 **Q. HOW WOULD CHAPTER 56 APPLY TO ENRON UNDER SUCH**  
12 **CIRCUMSTANCES?**

13  
14 A. Under such circumstances Enron would, as the agent of the customer, have the  
15 right to authorize discontinuance of service even though the actual physical  
16 disconnection may be provided by the EDC. In such a case Enron would, of  
17 course, agree that all provisions of Chapter 56 should be applicable to its activities.

18 **Q. WHAT IS DUQUESNE'S POSITION ON THIS MATTER?**

19 A. I have not been able to ascertain whether Duquesne has addressed this issue in its  
20 direct testimony.

21 **Q. WHAT ACTION BY THE COMMISSION IS REQUIRED TO ALLOW**  
22 **AGENCY ARRANGEMENTS?**

23  
24 A. In order to enable agency arrangements to be made between customers and  
25 suppliers, the Commission must direct Duquesne to include a provision in their

1 tariffs which allows customers to enter into an agency relationship with suppliers  
2 for purposes of procuring service from Duquesne. I do not believe that  
3 Duquesne's proposed tariffs contain such a provision.

4 **Q. FOR THOSE SUPPLIERS THAT CHOOSE TO CONTINUE TO USE**  
5 **DUQUESNE'S BILLING SERVICES, DOES DUQUESNE INTEND TO**  
6 **CHARGE FOR ITS BILLING SERVICES?**  
7

8 A. Duquesne has not indicated in any of its direct testimony that it intends to levy  
9 such a charge.

10 **Q. WHAT IS ENRON'S POSITION REGARDING SUCH A CHARGE?**

11 A. I have no objection to a charge for billing to electric generation suppliers that  
12 choose to purchase billing services from Duquesne as long as the charge is cost-  
13 based and reasonable. In fact, Enron submits that cost should be used as a basis to  
14 unbundle the billing and collection service so that it can be provided  
15 competitively.

16  
17 **Q. ARE ANY PROTECTIONS REQUIRED TO ASSURE THE**  
18 **REASONABLENESS OF DUQUESNE'S BILLING CHARGE?**

19 A. Yes. If for whatever reason Enron does not have the ability to direct-bill it will  
20 have no alternative but to purchase Duquesne's billing and collection services.  
21 Under those circumstances, given the lack of an alternative, generation suppliers  
22 will have little or no leverage in negotiating billing arrangements with Duquesne  
23 under non-discriminatory terms at reasonable and cost-based prices absent  
24 Commission oversight. It would be counterproductive to allow utilities to demand

1 that suppliers enter into unreasonable billing arrangements, as it would decrease  
2 the prospects for the development of competitive alternatives. Of course,  
3 regulatory controls will not be necessary if the Commission acts to establish fully  
4 competitive billing and collection services.

5 There is an additional reason that the factors discussed above supporting  
6 unbundling of billing and collection services are particularly important as they  
7 relate to Duquesne. Its planned replacement of its current information system  
8 (Duquesne St. 8 at 5) raises important questions as to whether the costs of that  
9 replacement should be recovered by the monopoly EDC -- Duquesne. While  
10 Enron certainly does not oppose Duquesne's efforts to enhance its information  
11 system, such an investment -- in a competitive environment -- should not be  
12 recovered from the monopoly's ratepayers. Rather, the investment should  
13 generally be recovered by Duquesne's competitive affiliate and the risk of  
14 *recovery of such investment borne by the competitive entity's stockholders* in the  
15 same way Enron must recover its investments to enhance its own billing system.

16 Accordingly, the new information and billing system should ideally be  
17 transferred to Duquesne's affiliate to be recovered as the market permits -- again,  
18 assuming a fully competitive billing and collection market. However, if the  
19 Commission finds that billing system assets and costs should remain with  
20 Duquesne, those costs should be allocated between distribution, transmission and  
21 generation in order to determine what charges to consumers, suppliers and other

1 third parties should result. Duquesne has not indicated how costs will be allocated  
2 or what charges will be proposed as a result. Not only is a fair allocation  
3 important, but unbundling of billing and collection service is essential so that  
4 customers are aware what they are paying Duquesne for enhanced billing service  
5 for comparison purposes with the quality and price of billing services offered by  
6 suppliers. Furthermore, at a minimum, the terms and conditions offered to  
7 suppliers for billing services should be tariffed and subject to normal tariff review  
8 procedures.

9 **Q. DO YOU AGREE WITH DUQUESNE'S PROPOSED APPLICATION OF**  
10 **PAYMENTS, PARTIAL AND OTHERWISE, IT RECEIVES WHEN IT**  
11 **BILLS FOR BOTH ITSELF AND A SUPPLIER?**

12  
13 A. No. Duquesne proposes to apply all partial payments first to extinguish  
14 Duquesne's receivables — unless otherwise directed by the customer. This is  
15 clearly unfair to Alternative Electric Suppliers. The Commission should require  
16 that payments received from customers by Duquesne, or other billing agent, be  
17 applied to the services provided by the entity that does not have direct access to the  
18 customer. There is no reason why Duquesne's charges should be given priority  
19 over a supplier's, unless Duquesne relinquishes billing responsibility.

20 **Q. PLEASE EXPLAIN ENRON'S POSITION ON THE APPLICATION OF**  
21 **PAYMENTS RECEIVED BY BILLING AGENTS.**

22 A. Enron believes that the entity that takes responsibility for the billing process  
23 should also bear the risk for non-payment. When a utility is allowed to bill, they

1 are able to further entrench their incumbent position through their interactions with  
2 customers. This undermines the ability of other market entrants to develop  
3 relationships with customers. If Duquesne remains the sole billing agent and all  
4 payments, partial or otherwise, are applied to its receivables first, then Duquesne is  
5 able to increase or maintain its market reach without any financial risk. The  
6 billing agent has responsibility for and power of collection; thus, they should also  
7 bear the financial risk. Generation suppliers do not have any recourse for  
8 collection and should not have to bear the risk of payment default by customers.  
9 Furthermore, if Enron is allowed to perform metering and billing services, we are  
10 fully prepared to bear any financial risk arising from non-payment of customer  
11 bills.

12 **Q. IF THE COMMISSION PERMITTED PRIORITY APPLICATION OF**  
13 **PAYMENTS TO DUQUESNE WOULD IT HAVE AN ADVERSE EFFECT**  
14 **ON THE MARKETPLACE?**

15  
16 A. Yes. It is generally understood that some customers, particularly residential  
17 customers, do not pay their electric bills in full every month. If payments are not  
18 applied on a *pro rata* basis, a disproportionate amount of the customer's  
19 delinquencies will be allocated to the supplier. This potentially could lead to  
20 unnecessarily early discontinuance of service by the supplier for non-payment.  
21 Upon discontinuance of service by the supplier, the delinquent customer will  
22 return to the EDC as the default generation supplier and will be deprived of the  
23 benefits of the marketplace. Furthermore, EDCs, including Duquesne, are already

1 recovering uncollectibles, including those uncollectibles associated with the  
2 generation portion of the bill, in current rates. In a competitive environment,  
3 suppliers will be presumably assuming the risk of uncollectibles for the generation  
4 portion of the bill. Accordingly, to assign a disproportionate amount of potential  
5 uncollectibles to suppliers would result in double recovery of certain uncollectibles  
6 expense by Duquesne.

7 **III. PHASE-IN OF FULL DIRECT ACCESS**

8 **Q. WHAT IS YOUR UNDERSTANDING OF HOW DIRECT ACCESS WILL**  
9 **BE PHASED-IN PENNSYLVANIA?**

10  
11 A. It is my understanding that there must be a transition and *phase-in period*, which  
12 ends, subject to the Commission's discretion, on January 1, 2001, at which point  
13 all customers with EDCs shall have the opportunity to purchase electricity from  
14 their choice of electric generation suppliers. Following the pilot programs, it is my  
15 understanding that the Competition Act calls for the following phase-in schedule:  
16 as of January 1, 1999, 33% of the peak load of each customer class shall have the  
17 opportunity to obtain direct access; as of January 1, 2000, a maximum of 66%; and  
18 as of January 1, 2001 all customers shall be able to *obtain direct access*. It is also  
19 my understanding that the Competition Act calls for selection of customers on a  
20 first-come-first-served basis unless the Commission determines that some other  
21 method is necessary to prevent competitive disadvantages among similarly situated  
22 customers within a customer class.

1 Q. **WHAT HAS DUQUESNE RECOMMENDED FOR RESIDENTIAL AND**  
2 **SMALL COMMERCIAL CUSTOMERS?**

3  
4 A. Duquesne has recommended random selection of residential and small commercial  
5 customers based on geographic areas of choice (GAC).

6 Q. **DOES ENRON AGREE TO THIS METHODOLOGY FOR RESIDENTIAL**  
7 **CUSTOMERS?**

8  
9 A. No.

10 Q. **WHY IS THE "GACS METHOD" INAPPROPRIATE?**

11 A. Residential and small commercial customers residing in the same geographic area  
12 of choice will be phased in together. Such a methodology is unfair because it will  
13 indiscriminately prevent customers who desire to participate in the competitive  
14 market place from accessing competitive service options. Additionally, this  
15 method may disadvantage small businesses in one neighborhood, whose area was  
16 not chosen, relative to those in other neighborhoods who are to enjoy the benefits  
17 of competition.

18 Q. **HOW SHOULD RESIDENTIAL AND SMALL COMMERCIAL**  
19 **CUSTOMERS BE PHASED IN?**

20 A. For residential customers, we agree there is no reason to depart from the statutory  
21 first-come-first-served basis because, by definition, residential customers do not  
22 "compete" with each other. Clearly, there can be no "competitive disadvantages"  
23 to residential customers by accepting such customers on a first-come-first-served  
24 basis. Duquesne should be required to use an open enrollment standard that is

1 conducted on a first-come-first-served basis until 33% and 66% of residential  
2 customers respectively (on a customer count, not customer load, basis) are  
3 included in the phase-in for each of the first two years. I believe that Duquesne  
4 should be directed to allow the processing of customer switching applications from  
5 June 1, 1998 until filed.

6 **Q. WHAT ABOUT COMMERCIAL AND INDUSTRIAL CUSTOMERS?**

7 A. Here there is a reason to depart from first-come-first-served preference because  
8 competitive disadvantages within those classes are real and appropriate for  
9 consideration. Because of this, I would defer to the selection process advocated by  
10 many commercial and industrial customers. Enron would be willing to accept the  
11 "first through the meter" approach, where Enron would supply the first portion of  
12 the customer's electricity received in a given hour, and the EDC would supply the  
13 remainder. Some utilities have complained that this places all the risk of the  
14 variable part of the customer's load on them. Enron would therefore also be  
15 willing to "follow the customer's load" and provide a fixed percentage of its  
16 customers' load throughout the day.

17 **Q. HOW SHOULD GRANDFATHERING FOR PILOT PROGRAM**  
18 **CUSTOMERS INTO DIRECT ACCESS BE ACCOMPLISHED?**

19 A.  
20 All customers or customer load that participates in Duquesne's pilot programs  
21 should be grandfathered into the first phase of direct access. Duquesne agrees.

1 **IV. CUSTOMER SELECTION AND SLAMMING**

2 **Q. WHAT IS MEANT BY SLAMMING?**

3 A. "Slamming" is when a supplier switches a particular customer to its service  
4 without having received that customer's consent. This term arose in the  
5 telecommunications industry with the problem of long distance carriers switching  
6 customers to their service without customer consent.

7 **Q. WHAT IS YOUR UNDERSTANDING OF WHAT THE COMPETITION**  
8 **ACT PROVIDES REGARDING "SLAMMING"?**

9  
10 A. It is my understanding that the Commission is required to promulgate regulations  
11 to ensure that customer consent is obtained prior to a change of electric suppliers.

12 **Q. WHAT IS ENRON'S POSITION AS TO HOW THIS CONCERN SHOULD**  
13 **BE TREATED ?**

14  
15 A. As the Commission is fully aware, slamming presented a relatively serious  
16 problem to telephone customers and regulators in the late 80's and early 90's when  
17 overaggressive marketing by long distance carriers led to frequent instances in  
18 which a local exchange carrier implemented a change pursuant to the request of a  
19 long distance carrier without any — or at least without adequate — customer  
20 consent. It would seem obvious that the purpose of the provision in the Act is to  
21 avoid this type of slamming problem in Pennsylvania's competitive retail electric  
22 market.

23 In Enron's view, the situation in the competitive electric industry is very  
24 analogous to the situation in the telecommunications industry. Essentially, the

1 electric distribution company plays the role of “gatekeeper” traditionally held by  
2 local exchange carriers. Generation suppliers — including the distribution utility’s  
3 supplier affiliate or division — will submit change orders to that incumbent utility  
4 when a customer decides to switch its generation supplier service, much like long  
5 distance carriers place change orders with a local exchange carrier. The  
6 Commission’s role in setting standards for restructured utilities should be designed  
7 to assure that the supplier receives and adequately documents the customer’s  
8 consent prior to placing a change order with the utility.

9 **Q. HOW SHOULD THE COMMISSION DO THIS?**

10 A. It is imperative both to protect consumers and, as the Commission has  
11 acknowledged, “to make changing a carrier as easy and convenient as possible for  
12 customers.”<sup>3</sup> My understanding is that the Competition Act requires that the  
13 customer of record affirmatively choose to switch suppliers either through “direct  
14 oral confirmation” or “written evidence” of that choice.

15 **Q. HOW SHOULD THE PROTECTIONS DESIGNED TO PRECLUDE**  
16 **SLAMMING BE IMPLEMENTED?**

17  
18 A. Given the mandate of the Competition Act, I believe there are two distinct methods  
19 that should be established to govern the customer selection process in order to  
20 deter unauthorized switching or slamming. First, the EDC will switch a

---

<sup>3</sup> Proposed Rulemaking Order Establishing Standards for Changing a Customer’s Electric Supplier, Docket No. L-00970121 (Order entered April 25, 1997 at 2).

1 customer's supplier if the customer provides "direct oral confirmation" of consent.  
2 Second, the EDC will switch a customer's supplier if the EDC is provided "written  
3 evidence of the customer's consent to a change of supplier."

4 Enron believes that "direct oral confirmation" through a conference call  
5 among the customers, suppliers and EDC should be permitted regardless of  
6 whether the change is initiated by customer contact with the supplier or initiated  
7 by supplier contact with the customer. In either case, the supplier should be  
8 permitted to present "direct oral confirmation" of the customer's selection.

9 As for the term "written evidence," it is my understanding that the statute  
10 does not require "direct" written communications from the customer through a  
11 letter of authorization ("LOA") or an agency agreement; nor does it require that  
12 the customer execute the document submitted to the EDC. While LOAs and other  
13 agency agreements would be included within the term "written evidence," I  
14 believe the term is broader and includes any document which evidences to the  
15 EDC that customer consent was received by the supplier. Requiring filing of an  
16 executed LOA or agency agreement prior to implementing the customer's choice  
17 will unnecessarily delay the process without any corresponding benefit.

18 Requiring an LOA or agency agreement to be filed directly with the EDC is  
19 particularly problematic in the residential market in which mailing documents back  
20 and forth could take weeks. Furthermore, many residential customers who  
21 sincerely desire to switch suppliers will either not pay close enough attention to

1 their mail, will not bother to respond in a timely manner, or will simply conclude  
2 that all the paperwork is "too much trouble." Accordingly, requiring submission of  
3 an executed document for residential customers will be an extreme deterrent to  
4 customer choice.

5 Enron believes that "written evidence" would include a letter or other  
6 written communication from the supplier which affirmatively indicates that the  
7 supplier has received consent from the customer to switch the customer's service  
8 to the supplier. Such communications would clearly meet the statutory  
9 requirement of "written evidence," which the EDC can keep on file, documenting  
10 customer consent.

11 **Q. WHAT WOULD HAPPEN IF A SUPPLIER FURNISHED WRITTEN**  
12 **EVIDENCE TO AN EDC WHERE IT DID NOT, IN FACT OBTAIN THE**  
13 **CUSTOMER'S CONSENT?**

14 **A.** Enron would not oppose the imposition of strong penalties for suppliers that are  
15 found to expressly document customer consent in writing when such customer  
16 consent has not been received. Such fraudulent activity, if intentional, should be  
17 subject to penalties to the greatest extent permitted by law.

18 In addition, further action to eliminate the slammed customer's  
19 responsibility to pay the slamming supplier under such circumstances is  
20 appropriate, unless the switch was caused by an error. In combination, strong  
21 penalties and preclusion from payment will remove incentives for and establish  
22 strong deterrents to slamming, which I am certain will preclude those practices

1 from occurring in Pennsylvania's retail electric markets. Accordingly, Enron's  
2 proposal fulfills the dual objectives of deterring slamming and making changing a  
3 carrier as easy and convenient as possible.

4 **Q. WHAT SHOULD HAPPEN IN THE EVENT OF A GOOD FAITH**  
5 **ERRONEOUS SWITCH?**

6  
7 A. In such a case there should be no penalty or non-payment. I believe the  
8 Competition Act was designed to deter intentional slamming, not unintentional  
9 system error. Any benefit received from designing a completely foolproof system  
10 to counter the potential for unintentional system error is clearly outweighed by the  
11 adverse impact on the customer switching process.

12 **V. MARKETING AND CONSUMER EDUCATION**

13 **Q. PLEASE DEFINE AND DISTINGUISH THE TWO TERMS.**

14 A. The term "marketing" refers to activities which will be engaged in by generation  
15 suppliers to attract customers to select the supplier as the energy service provider.  
16 I expect that all generation suppliers, including Enron and Duquesne affiliate will  
17 engage in widespread marketing through a variety of media to attract customers to  
18 their services. No regulatory mandates or incentives are necessary to require or  
19 stimulate marketing activity. Business incentive will be more than adequate to  
20 engage suppliers in marketing activity.

21 With respect to "consumer education," it is my understanding that the Act  
22 provides that, prior to the implementation of any restructuring plan, each electric

1 distribution company, in conjunction with the Commission, must implement a  
2 consumer education program in order to educate customers about the introduction  
3 of competition into the generation supply market so that consumers can make  
4 educated and meaningful choices in the marketplace. My understanding is that  
5 under the Competition Act, Duquesne's Customer Education Program requires  
6 Commission approval, and that the Commission can modify Duquesne's proposed  
7 program as it sees fit in order to accomplish the Act's objectives.

8 **Q. WHAT IS ENRON'S POSITION REGARDING THE NEED FOR**  
9 **CUSTOMER INFORMATION AND EDUCATION?**

10 A. Enron has a keen interest in the customer information and education issues  
11 presently being addressed by the Commission, both generically and in each  
12 restructuring case. As a competitive supplier, Enron relies on the quality and price  
13 of its products to attract customers. Accordingly, it is critical to Enron that  
14 Pennsylvania consumers receive objective, comprehensive and understandable  
15 marketing and educational information from the Commission, electric generation  
16 suppliers and electric distribution utilities. In Enron's view, the more informed the  
17 consumer, the more likely it is that the consumer will participate in the competitive  
18 choice process and will select the retail electric services and products that best  
19 meet his or her needs.

20 **Q. WHAT IS THE APPROPRIATE SEPARATION WHICH SHOULD BE**  
21 **IMPLEMENTED TO DISTINGUISH MARKETING FROM CONSUMER**  
22 **EDUCATION?**  
23

1 A. If the Competition Act's and the Commission's goals for educating consumers  
2 through the dissemination of objective information are to be met, a strictly  
3 enforced separation between marketing activity and the customer education  
4 process should be implemented by the Commission as a component of Duquesne's  
5 customer education program. In my view, the only meaningful separation which  
6 has any chance of being enforced is to preclude both utilities and suppliers from  
7 engaging in the preparation or dissemination of customer education information or  
8 materials within the context of restructuring the electric industry. Allowing  
9 utilities or suppliers to participate directly in the preparation or dissemination of  
10 consumer education information or materials will inevitably lead directly to  
11 problems with dissemination of biased information designed for marketing  
12 purposes. At the same time, given the purpose of such educational information —  
13 which is to inform all consumers of the changes in the electric utility industry and  
14 to provide them with the information necessary to make appropriate choices about  
15 their electric service — it makes the most sense to have this educational  
16 information prepared and disseminated on a centralized basis to consumers  
17 throughout the state by the Commission or an independent third party under the  
18 Commission's supervision, rather than dividing the preparation and dissemination  
19 of customer education information and materials separately on a utility service  
20 territory by territory basis.

1 Q. ARE YOU SUGGESTING THAT UTILITIES AND SUPPLIERS SHOULD  
2 NOT SUPPLY ANY INFORMATION TO CUSTOMERS?  
3

4 A. Yes. The Commission should either conduct or delegate to an independent third  
5 party the preparation and dissemination of all retail access information. Overall,  
6 the Commission and independent third parties should disseminate information and  
7 educate. Suppliers and market participants should engage in marketing activity.  
8 The two should not be mixed under any circumstances. Because Duquesne is  
9 affiliated with and has a direct and equal interest in the success of the competitive  
10 activities of its supplier affiliate, Duquesne should be precluded from preparing or  
11 disseminating retail competition information or materials by any means since such  
12 activity will inevitably favor its Duquesne competitive activities.

13 Q. ISN'T IT POSSIBLE TO DISTINGUISH BETWEEN MARKETING AND  
14 CONSUMER EDUCATION INFORMATION?  
15

16 A. Attempting to label information as marketing or customer education oriented is  
17 completely unenforceable. The only effective answer is not to attempt to label  
18 information as being either marketing or consumer education oriented, but instead  
19 to centralize the consumer education effort and to eliminate both suppliers and  
20 utilities from direct involvement other than advisory activities. Overall, Enron  
21 supports the notion of centralized administration of consumer education, whether  
22 the administration be conducted by the Commission or an objective third party  
23 administrator.

1           Moreover, structurally separating consumer education from marketing will  
2           eliminate the potential for customer confusion. It will also reduce the overall cost  
3           if the effort is centralized for all Pennsylvania consumers. If conducted in this  
4           manner, Pennsylvania's consumer education program will provide unbiased,  
5           objective and meaningful information to consumers. Separately, suppliers and  
6           utilities will market their products and services to consumers. With these two  
7           sources of information effectively combined, educated consumers will exercise  
8           meaningful choice in the marketplace, and retail competition will develop in a fair  
9           and effective manner.

10       **Q.   HAVE YOU REVIEWED DUQUESNE'S CONSUMER EDUCATION**  
11       **PROPOSAL?**

12  
13       **A.**   Yes, as contained in Duquesne Statement No. 8. Duquesne proposes to be the  
14       primary disseminator of customer information in its customer education program  
15       and to be the author of the contents. They are also proposing to furnish third-party  
16       groups with Duquesne's materials for dissemination. Although Duquesne  
17       recognizes that there is a difference between education and marketing, I believe  
18       that such a program will inevitably result in the mixing of marketing and customer  
19       education and will not result in the dissemination of unbiased, objective  
20       information to Duquesne's customers. It will also result in customer confusion and  
21       will benefit no one but Duquesne.

22       **Q.   DOES DUQUESNE'S TESTIMONY CONTAIN EVIDENCE THAT ITS**  
23       **CUSTOMER EDUCATION WILL NOT BE UNBIASED?**

1 A. Yes. It appears that Duquesne will put its own name on or will prepare all  
2 customer education communications under its name, will introduce an Internet site  
3 and a special toll-free number for customers to call with competition-related  
4 questions. There is no reason for Duquesne to place its name on any customer  
5 education communications. Duquesne has already used a number of "advertorials"  
6 in newspapers and have subsequently posted them on their website. Samples of  
7 these materials are attached as Exhibit 4 GM-1. It is simply unrealistic to believe  
8 that customers will be able to distinguish between such "educational" information  
9 and marketing information bearing the same logo and furnished by another group  
10 within the company. At the same time, Duquesne has undertaken an extensive  
11 employee-information program. Again, it is unrealistic to believe that Duquesne  
12 employees will not favor Duquesne's competitive services.

13  
14 **Q. HAVE YOU HAD THE OPPORTUNITY TO REVIEW ANY CUSTOMER**  
15 **EDUCATION MATERIALS PREPARED BY DUQUESNE TO**  
16 **DETERMINE IF THEY ARE BIASED?**

17  
18 A. Yes. Attached as Exhibit 4 GM-2, are several examples of Duquesne's  
19 informational material available from its website.

20 Each of these examples contains a subtle marketing reference as to why  
21 Duquesne is superior to alternative suppliers. While the group preparing them  
22 claims not to be involved in marketing and to be separate from the marketing  
23 group, their work product proves my point that if these "educational materials" are

1 prepared under Duquesne's name, as proposed by Duquesne, the materials will be  
2 biased on their face.

3 **VI. UNIVERSAL SERVICE**

4 **Q. WHAT IS ENRON'S POSITION AS TO THE NEED FOR A UNIVERSAL**  
5 **SERVICE PROGRAM IN A COMPETITIVE GENERATION MARKET?**

6  
7 A. Enron strongly supports initiatives to establish a Universal Service Program to  
8 provide support to low income, payment troubled Pennsylvanians as long as the  
9 Program design is competitively neutral, as required by the Competition Act. The  
10 objectives of a Universal Service Program in a competitive generation supply  
11 environment should be not only to ensure that all low-income Pennsylvanians  
12 receive required electric services, but also to secure all of the benefits of the  
13 competitive generation market for these same consumers. In fact, low-income  
14 consumers stand to benefit greatly from the reduced energy prices which the  
15 competitive market will offer. Accordingly, it is extremely important for the  
16 Commission to establish a Universal Service Program for Duquesne which is  
17 consistent with competitively neutral universal service principles by assuring that  
18 universal service support flows towards the payment of distribution, transmission  
19 and generation services regardless of whom the customer chooses to provide his or  
20 her electric services. The goal should be to stimulate competition for serving low-  
21 income markets and to comply with the competitive principles which are embodied

1 in the Act while maintaining and, if possible, increasing the benefits to low-income  
2 customers provided by current universal service programs.

3 **Q. HOW SHOULD UNIVERSAL SUPPORT BE ALLOCATED?**

4 A. Distribution, transmission and generation are all components of a single electric  
5 service. Ensuring access to distribution alone will not enable a consumer to turn on  
6 a light bulb. Accordingly, universal service support must be portable and should  
7 be allocated to each component of a low-income customer's electric bill on a *pro*  
8 *rata* basis in proportion to the average comparative level of charges on customer  
9 bills.

10 **Q. WILL LOW INCOME CONSUMERS BE DISADVANTAGED IN ANY**  
11 **WAY IF DUQUESNE STRUCTURES ITS UNIVERSAL SERVICE PLANS**  
12 **TO INCLUDE *PRO RATA* ALLOCATION AND PORTABILITY OF**  
13 **SUPPORT?**

14 A. No. Low-income consumers will receive the same amount of assistance regardless  
15 of how the funds are credited on the bill. Further, in no case will a customer's  
16 service be terminated more quickly under a Universal Service plan with portable  
17 support than it would be under a plan which did not include portability. There is,  
18 therefore, no downside risk to the consumer, but a considerable benefit in that  
19 active competition for the business of low-income consumers should serve to  
20 reduce their bills even further.  
21

1 Q. WHAT IS DUQUESNE'S POSITION ON PORTABILITY AND PRO-RATA  
2 ASSIGNMENT OF UNIVERSAL SERVICE SUPPORT?  
3

4 A. Duquesne's has not offered an opinion in these matters at this time.

5 VII. MISCELLANEOUS ISSUES.  
6

7 Q. ARE THERE ANY OTHER ISSUES PERTAINING TO DUQUESNE'S  
8 RESTRUCTURING WHICH YOU WISH TO COMMENT ON AT THIS  
9 TIME?  
10

11 A. Yes. There are two additional issues which requires the Commission's attention in  
12 order to assure that Duquesne's restructuring plan will enable the meaningful  
13 development of a competitive market. This first issue relates to the need for  
14 representative, historic usage data or demand profiles for each customer class to be  
15 provided by Duquesne to suppliers.

16 Q. WHY IS IT NECESSARY FOR SUPPLIERS TO RECEIVE  
17 REPRESENTATIVE DEMAND PROFILES FOR EACH CUSTOMER  
18 CLASS?  
19

20 A. One of the primary factors which Enron uses to develop prices and service  
21 arrangements for a given customer or customer type is the customer's estimated  
22 usage patterns. While ideally it would be preferable to review a given potential  
23 customer's actual demand profile, I realize that this information is proprietary to  
24 the customer and may not be released by Duquesne without customer consent.  
25 However, Enron can develop a reasonable estimate of a given customer's usage  
26 patterns by reviewing a representative demand profile for that consumer's  
27 customer class. It is critical that Enron be provided this information by Duquesne

1 at least six months prior to the time of initiation of direct access and that the  
2 information be updated upon request. Accordingly, the Commission should ensure  
3 timely access to this information.

4  
5 **Q. EARLIER, YOU MENTIONED THAT THE DIRECT ACCESS PHASE-IN**  
6 **IS SCHEDULED TO BEGIN ON JANUARY 1, 1999 BUT IS SUBJECT TO**  
7 **THE COMMISSION'S ABILITY TO DELAY THE IMPLEMENTATION**  
8 **DATE. DOES THIS POTENTIAL CAUSE CONCERNS FOR SUPPLIERS**  
9 **SUCH AS ENRON?**

10  
11 **A.** Yes, this is the second issue which requires Commission attention. I understand  
12 that the Competition Act authorizes the Commission to delay the initiation of the  
13 phase-in for two additional six-month periods, and specifies certain circumstances  
14 that could justify the delay, including a finding that implementation would affect  
15 reliability, the failure of communications and information systems to be installed,  
16 and "other considerations" that would affect the orderly implementation of the  
17 Competition Act. The Commission must make this determination at least 45 days  
18 prior to January 1, 1999. My concern is that utilities could request a delay a  
19 relatively short time before the 45-day notice period, and direct access could be  
20 delayed after Enron and other suppliers had expended enormous time and  
21 resources preparing to provide service and signing up customers.

22 In such circumstances, such a "surprise" delay would have a significant and  
23 extremely negative effect on the long-term development of competition in  
24 Pennsylvania.

25 **Q. WHAT DO YOU PROPOSE TO MITIGATE THIS POTENTIAL?**

1 A. I propose that Duquesne and other EDCs be required to file with the Commission  
2 (and all participants in the relevant restructuring filings) monthly status reports on  
3 the efforts the EDC is making to be able to implement direct access on January 1,  
4 1999. In this way, the Commission, customers and competitors will have regular  
5 and timely information about EDC progress in resolving technical and other  
6 unbundling issues mandated by the Commission. The Commission staff can work  
7 with the EDCs and other interested parties to determine the content of such reports.  
8 If problems are reported, the Commission, the utilities and any competitors will be  
9 able to take actions early enough to mitigate any potential delay.

10 Q. **DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

11 A. Yes it does.



**Competition Overview**

**Customer Choice Advertorial Series:**

- [Power to Choose](#)
- [Let the Competition Begin](#)
- [Delivering the Future](#)
- [A New Contract with Tomorrow](#)
- [Piloting Competition](#)
- [Road To Competition](#)
- [Unbundling Power](#)
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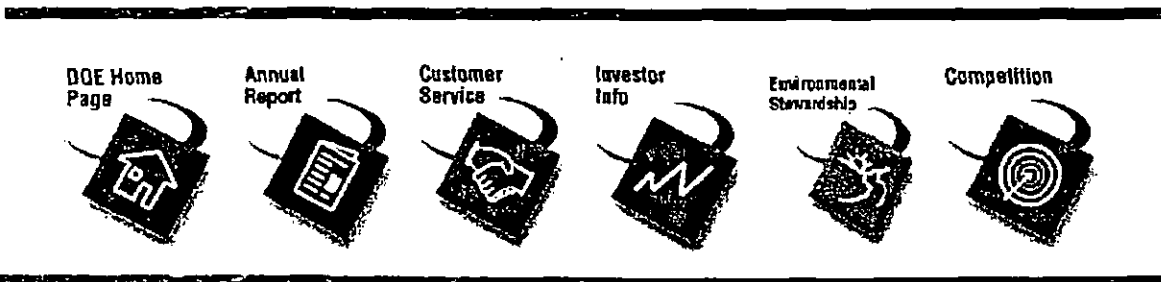
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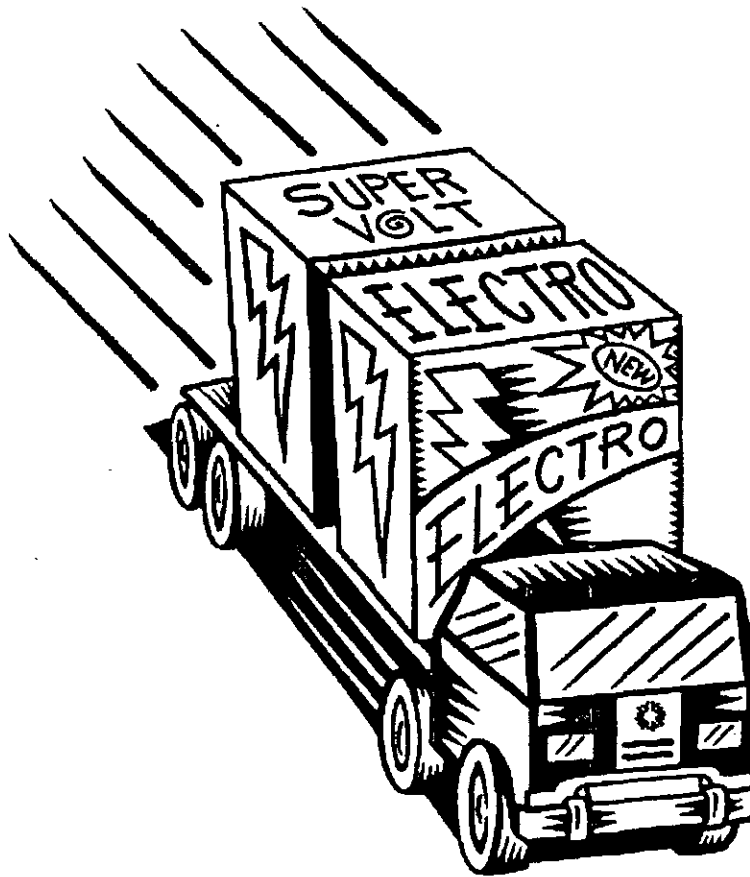
**Retail Access Pilot Program:**

The Petition of Duquesne Light Company for Approval of Retail Access Pilot Program, to the Pennsylvania Public Utility Commission, is available for [download](#) (480KB) in the Adobe Acrobat Reader 3.0 PDF format. If you need the *free Adobe Acrobat Reader 3.0* you can download it from the [Adobe Acrobat Web Site](#). Please review Adobe's system requirements for using Acrobat Reader 3.0, to ensure you will be able to read the Pilot PDF file.

Your Comments are Welcome!



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## DELIVERING THE GOODS.

Soon electricity will be promoted and sold like many other products. Recently passed legislation will allow some customers to choose a power provider as part of a pilot program later this year.

By January 1, 2001, everyone will shop for a power generation company much as you may now do for a long

distance phone company. But no matter who generates your electricity, delivery will still be the job of Duquesne Light. We will continue to maintain the poles and wires that carry power safely and reliably to your home or business. Just as we do now.

Power shopping will bring significant change. Learning about what's in store

will help you understand the choices you will need to make.

Just call us at 1-888-245-7500 or visit our home page. We'll be happy to answer your questions and send you useful information. The new electric marketplace has a bright future. All of us at Duquesne Light are working hard to deliver it.



**Duquesne Light**



## A Choice Opportunity

More than a century ago, Pittsburgh was carving a leadership position in the fledgling electricity industry. One of the world's first permanent central power stations was built on a fifty-by-ninety-foot lot on what today is Oliver Avenue in the center of Downtown. In the age of horse-drawn streetcars, Pittsburgh became one of the first cities in the country to offer electric streetcar service. One historian has written that Pittsburgh during this time may have been better lit with electricity than any other city in the nation.

The success that Pittsburgh enjoyed in the formative years of the electricity industry spurred fierce competition. More than one hundred small "neighborhood" electric companies—many consisting only of a generator in the basement, according to one account—went head-to-head competing for street lighting contracts.

This period of competition gave way to a long era of regulation, brought on by a greatly increased demand for power and the potential for economies of scale. It was during this era that utilities were required to provide power to anyone in their service territories who requested it, in return for an exclusive franchise. Now, Pennsylvania is poised for competition again. Suppliers, including those from outside the state, will have the opportunity to market their particular "brand" of power to local customers by mail and phone and through the media. Customers will have to evaluate marketing information and make choices accordingly. While the exact number of interested and qualified electric suppliers is not yet known, consumers most likely will have an opportunity to select from a broad range of companies.

However, unlike a century ago, when an

entrepreneur with a basement generator would suffice to get a company into business, firms planning to compete in Pennsylvania will have to measure up to standards of technical competence and financial fitness set by the Public Utility Commission. For example, the PUC will establish

**Knowing that suppliers must meet PUC guidelines will help consumers make confident choices.**

requirements to ensure that customers receive accurate information about supplier services, in words that are easily understood. The PUC will require that suppliers offer their services to everyone on

an equal basis and will be watchful of any potentially deceptive practices. The intent is that the present quality of service and all relevant standards be maintained. Knowing that suppliers must meet PUC guidelines will help consumers make confident choices.

Duquesne Light's goal is to make our customer choice pilot program—scheduled to be available to more than 29,000 customers later this year—a meaningful prelude to the full competition in power supply that will be phased in beginning in 1999. For power suppliers, we will do that by providing full and equal access to our transmission and distribution systems. For consumers, we will be a source of information on how customer choice will work and will furnish on request a list of all suppliers who have been licensed by the PUC to compete.

Thomas Jefferson once said "The great joy of being an American is having freedom of choice." In the not too distant future, electricity consumers will have the opportunity to choose, and to enjoy the benefits of their choosing.



This is the eighth in a series of messages on customer choice. We welcome your comments. You may write us at: Power to Choose, 411 Seventh Avenue, Pittsburgh, PA 15219. Or respond through our home page at <http://www.dqe.com>



## Competition

Our first major step in meeting marketplace demands came with the highly successful Duquesne Plan in 1986. The front cover of our annual report that year said: **"To become more efficient, more competitive, more market-driven, more customer-oriented and more profitable, we are determined to evolve and change."**

The pace of change for the traditional electric utility industry is accelerating. Various scenarios for market forces to replace regulation are being discussed across the country and in our own state of Pennsylvania, but the public policy that will be implemented to resolve these issues is far from evident. As a matter of good public policy, we believe we need at least two things from federal and state regulators: 1) a clear vision of how all customers of the industry can best benefit from competition, and 2) a transition plan that is fair to customers and shareholders and does not suddenly change long-established ground rules.

**We support a regulatory vision that allows all of our retail customers to benefit from the lower prices that inevitably will result from vigorous wholesale competition.** The first step toward this goal is access to the transmission network at non-discriminatory price and service levels. This cost-based service must be comparable to what transmission owners provide for themselves in order to ensure economically efficient investment decisions will be made for future generation options.

In addition, prudent investments that were made by regulated companies under their clear legal obligation to provide service will have to be recognized as legitimate system costs. These costs should be shared by all electricity users, regardless of future sources of competitively priced power. As retail customers gain more choice in their competitive purchasing options, electric utility responsibilities will shift from an absolute obligation to service any request for power to an obligation only to deliver available power at competitively determined prices. Any investments in new generation plants, whether by utility or non-utility developers, would be supported by market determined prices regardless of the ultimate costs of these new power sources.

Fundamental changes to the price regulations and service obligations of our industry are being debated nationwide. **The key factor in delivering the benefits of competition to all customers will be the ability of the market to buy power from the most efficient producers. We add our voice to those who favor a more economically efficient process for meeting our society's growing demand for electricity.** We are encouraged to see leading economists and policy makers beginning to describe a clear path for a transition to an efficient system of allowing the market place to choose future sources of new power.

We strongly support the recent Federal Energy Regulatory Commission policy that requires all electric companies to file comparable open-access transmission tariffs and calls for an orderly transition to competition which will allow financial recovery for previously regulated investments.

Our prices give our customers choices in controlling their total energy bills. Duquesne Light offer the lowest electric heating rate in Pennsylvania. Our customers with modern, all-electric homes have a lower energy bill than Pittsburgh homeowners who heat with gas. If all Pittsburgh homes were heated with electricity, our customers would pay 35 percent less per kilowatt hour.

We place special emphasis upon how much we value our customers. We guarantee our service absolutely. **Duquesne Light is the first and only Pennsylvania regulated utility to offer**

**comprehensive customer service guarantees and one of only three electric utilities in the United States to do so.** We make this commitment and back it up with the pledge of a \$25 credit should we fail. Our guarantees give our customers a new reason to expect that our service will meet their needs absolutely -- and a way to hold us accountable to the highest standard of service.

Our team is changing because it is important to have our best players in place for the world of competition facing our company. Duquesne Light people will be in a position to confront changing times with new perspectives and fresh ideas. For example, at Cheswick Power Station this year, the first woman in the history of Duquesne Light became a power station manager, and she is the only woman currently managing a power plant in Pennsylvania. These changes have been happening as we become a more lean organization. Our total work force has been reduced by 24 percent in the past five years.

The people of Duquesne Light are an eager, well-knit team ready for a new future in a changing industry. We have learned from yesterday to look forward to tomorrow. We're not thinking only about this year and next but about the year 2000 and beyond. Thank you.

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