

Environmentalists' Statement No. 2-S

**Before the
Pennsylvania Public Utility Commission**

**Duquesne Light Company
Restructuring Plan**

Docket No. R-00974104

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**Surrebuttal Testimony and Exhibits of
Bruce Edward Biewald**

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December 11, 1997

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Exhibit BEB-5 Economic Analysis of Duquesne Light Company's Perry 1 Investment

Exhibit BEB-6 Economic Analysis of Duquesne Light Company's BV 2 Investment

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1 **1. Qualifications**

2 **Q. State your name, occupation and business address.**

3 A. My name is Bruce Edward Biewald. My address is Synapse Energy
4 Economics, Inc., 22 Crescent Street, Cambridge, Massachusetts, 01238.

5 **Q. Have you provided testimony previously in this proceeding?**

6 A. Yes. I provided written direct testimony on November 7, 1997 on behalf of
7 the Environmentalists in a statement designated as Environmentalists' Statement
8 No. 2. In my direct testimony I addressed three sets of issues: (1) environmental
9 disclosure for electricity, (2) nuclear decommissioning costs, and (3) the "Better
10 Choice Plan" for enhancing competition by allocating default customers.

11 **Q. What is the purpose of this surrebuttal testimony?**

12 A. In this surrebuttal testimony I address the rebuttal testimony of Duquesne
13 Light Company witnesses Ralph Duckworth, Jr., Thomas S. LaGuardia, and
14 Frank A. Hoffmann. I also address the rebuttal testimony of the Consumer
15 Advocate's witness Barbara Alexander. The issues of the surrebuttal testimony
16 are:

- 17 1) nuclear plant economics (Duckworth),
18 2) nuclear decommissioning (Duckworth and LaGuardia)
19 3) consumer education and disclosure (Hoffmann), and
20 4) the Better Choice Plan (Hoffmann and Alexander).

21 **Q. On whose behalf are you testifying?**

22 A. This surrebuttal testimony is prepared and presented on behalf of Mr. David

1 Hughes (nuclear economics) and the Environmentalists (the other issues).

2 **2. Nuclear Plant Economics**

3 **Q. Are the economics of Duquesne's investments in Perry and Beaver**
4 **Valley nuclear plants an issue in this case?**

5 A. Yes. The Company has requested stranded cost recovery, much of which is
6 directly related to its investment in Perry and Beaver Valley. In responding to the
7 testimony of David Hughes, Duquesne witness Ralph Duckworth, Jr., discusses
8 "prior ratemaking actions" of the Commission (page 1, line 12);
9 • improvements to the "operating and financial experience of Perry" (beginning
10 at page 1, line 13);
11 • whether "ratepayers benefitted from the declining fuel costs at Perry" (page 4,
12 line 16);and
13 • whether Perry is "used and useful in providing utility service to the public"
14 (beginning at page 8, line 14).

15 I was asked to perform an analysis of Perry 1 and Beaver Valley 2, in order to
16 put these issue in an economic context.

17 **Q. What is the nature of your analysis?**

18 A. I have used data from Duquesne and various other sources in order to
19 construct a picture of the overall impacts to customers of Duquesne's investment
20 in Perry 1 and Beaver Valley 2. My analysis spans the period from when the
21 units began operating in 1987 through their expected retirement in 2026.

22 **Q. Do you consider this a rigorous, independent analysis?**

1 A. No. First, the analysis should be considered a "first-cut." That is, it was
2 prepared from materials at hand, and a number of approximations were made.
3 Secondly, the projections are almost entirely from the Company. I believe that
4 they are biased significantly in favor of the nuclear units. I have, nonetheless,
5 incorporated the Company's projections in this analysis in order to show how
6 poor the economics of these units are, even with such optimistic projections.
7 The input assumptions are summarized in Exhibit BEB-7.

8 **Q. Please describe your results.**

9 A. My analyses of Perry and Beaver Valley 2 are presented in Exhibit BEB-5
10 and BEB-6, respectively. For Perry, the cumulative losses amount to
11 approximately \$2.0 billion (in 1997 present value dollars). Roughly \$1.5 billion of
12 this is already incurred by customers. The cumulative losses climb from \$1.5
13 billion to about \$2.0 billion over the next seven years, at which point the
14 projected cost of operating Perry is expected to be similar to the market value of
15 power for the remainder of the unit's operating life.

16 For Beaver Valley, the cumulative losses total approximately \$1.0 billion (in 1997
17 present value dollars).

18 **Q. You mentioned that you used projections that tend to favor the nuclear
19 units. Please explain.**

20 A. I will provide several examples, from the calculation for Perry. Specifically,

- 21 • I used the capacity factor projections from Mr. Karl (88%) for 1998 to 2005;
22 and from Mr Clayton (84%) for 2006 to 2026. These are considerably higher
23 than the unit's past performance would indicate.
24 • I assumed the unit would operate over its full license period.

- 1 • I assumed that Mr. Clayton's projection of O&M costs could be achieved.
2 • I assumed that market prices for electricity would be at the Company's high
3 case.

4 **Q. What are the implications of these results?**

5 A. Duquesne's Perry 1 and Beaver Valley 2 investments have been a
6 tremendous burden upon customers. They are "used" but are not economically
7 "useful." Even if there were no move to competition in electric generation,
8 customers should not be required to bear the brunt of this economic burden.
9 The Commission should take the lifecycle economics into account in determining
10 the extent to which Duquesne should be allowed to recover stranded costs. In
11 addition, the opportunity to mitigate stranded costs by early retirement of one or
12 both units deserves very careful consideration.

13 **3. Nuclear Decommissioning**

14 **Q. Mr. Duckworth states that "decommissioning costs are driven by a
15 number of factors, none of which are determined by how a unit is
16 operated" (Duquesne Statement No. 11-R, page 18). Do you agree?**

17 A. Yes and no. I agree with Mr. Duckworth that many of the factors that
18 influence the cost to decommission a nuclear power plant are beyond the
19 Company's control. However, I believe that there are also some important
20 factors that influence decommissioning costs that are within the control of the
21 owner and operator, at least to some extent. I discuss some of these on page
22 38 of my Direct Testimony.

23 **Q. Did you make the statement that Mr. Duckworth calls "ridiculous?"**

1 A. No. Mr. Duckworth states that

2 "Mr. Biewald comments that decommissioning costs
3 should be the responsibility of the Company because it
4 has not operated the units as 'cleanly' as possible. He
5 proposes that such costs be treated as operating costs.
6 This is a ridiculous statement. I would be very interested
7 in knowing how Mr. Biewald would operate a nuclear
8 plant without contaminating major portions of the plant."
9 (Page 19).

10 Mr. Duckworth has apparently misunderstood my testimony. I have not accused
11 the operators of Duquesne's nuclear capacity of improperly operating the units.
12 Nor have I proposed treating these costs as operating costs. Nor did I mean to
13 suggest that one could operate a nuclear plant without contamination. What I
14 did mean to say is, I believe, stated clearly in my Direct Testimony. Specifically,
15 there is not a clear, unambiguous line between operating costs and
16 decommissioning cost, and this should be considered in developing a sound
17 decommissioning policy.

18 **Q. Mr. LaGuardia states that you "ignore economic factors beyond general**
19 **inflation in manipulation of data (Duquesne Statement No. 13-R, page 16).**
20 **Is he correct?**

21 A. In a sense, yes. He misses the point, however. Which factors one accounts
22 for and how they are incorporated into an analysis depends upon what one is
23 analyzing. In the case of my analysis of decommissioning cost estimates, I am
24 specifically interested in finding out how decommissioning cost estimates have
25 changed over time relative to general price inflation. That is, I am interested in
26 the aggregate effect of all of the factors that have driven nuclear

1 decommissioning cost estimates. To make the specific adjustments suggested
2 by Mr. LaGuardia would amount to explaining away the changes over time, and
3 the result would, therefore, be irrelevant for my purposes.

4 **Q. Mr. LaGuardia disagrees with you about the uncertainty in**
5 **decommissioning cost estimates. Please explain this difference of**
6 **opinion.**

7 A. The difference in this case may be more a difference in terminology than a
8 difference in opinion. Mr. LaGuardia believes that his current decommissioning
9 cost estimates are "accurate" and not "uncertain." In his use of the terms, the

10 "large increases [in his past estimates] reflect changes in
11 scope or inflationary factors which are accounted for in
12 periodic updates to the estimate(s). They are not
13 necessarily indicative of uncertainties in the estimate."
14 (page 18)

15 In my view, and in common usage, a cost estimate that is revised upward by 300
16 percent was "inaccurate" and subject to "uncertainty."

17 **4. Consumer Education and Disclosure**

18 **Q. Mr. Hoffmann claims that your proposal to coordinate consumer**
19 **education with disclosure and labeling requirements is problematic. What**
20 **is his concern?**

21 A. Mr. Hoffmann states that disclosure is a supplier responsibility and could
22 "represent marketing information that might influence customer decisions about
23 power suppliers" (Duquesne Statement No. 6-R, Rebuttal Testimony of Frank A.

1 Hoffmann, page 15). It appears that Mr. Hoffmann believes that consumer
2 education about disclosure must somehow promote one type of generation
3 source over another and would therefore constitute marketing.

4 **Q. Do you agree with Mr. Hoffmann?**

5 A. No, I do not. While disclosure is a supplier responsibility, the Company will
6 be the supplier of some customers and, therefore, will be required to disclose its
7 generation sources to its customers. This is not, however, the point of the
8 proposal to coordinate consumer education with labeling and disclosure. Even if
9 the Company has no customers to whom it acts as supplier, it will be required to
10 educate customers about many important aspects of competition and choice.
11 For example, the Company, presumably, will educate consumers about the
12 consumer protection rights afforded them with regard to interactions with
13 suppliers. In addition, the Company will inform customers that they will have an
14 opportunity to choose among competing suppliers for their electricity generation.
15 To also educate customers from a neutral perspective about the procedures and
16 basic terms that will be used by suppliers when they disclose their resource mix
17 would not unduly influence a customer's choice. Again, presenting information
18 that is clear and unbiased is the only way to allow meaningful customer choice.

19 **Q. Do you agree with Mr. Hoffmann's contention that the "creation of a**
20 **'Consumer Education Joint Committee' . . . adds needless layers of**
21 **bureaucracy, time and expense to a review process that is currently**
22 **adequate and thorough" (Duquesne Statement No. 6-R, Rebuttal Testimony**
23 **of Frank A. Hoffmann, pages 24-25)?**

24 A. No. I believe that the Committee, as described in my testimony, would lead
25 to a more effective implementation of the consumer education program. The
26 Committee would bring input to the consumer education plan from a broad range

1 of interests which would result in a better program. In addition, the Committee's
2 meetings would be publicly noticed and transcribed so the opportunity for input
3 from the public (those consumers who are being educated) would be ongoing,
4 unlike any proposal by the Company thus far. The opportunity to create a
5 customer education plan that balances the many complex messages of a
6 competitive market can become a reality.

7 **5. The Better Choice Plan**

8 **Q. Mr. Hoffmann criticizes your proposal for allocating default customers.**
9 **What is his concern?**

10 A. Mr. Hoffmann states that I "suggest that the non-choosing customers (i.e.,
11 customer given the opportunity for direct access but deciding to stay with the
12 existing service) should be allocated among the various generation suppliers
13 *servicing the other customers .. presumably against the customer's wishes.*"
14 (Duquesne Statement No. 6-R, Rebuttal Testimony of Frank A. Hoffmann, page
15 8). In effect, he believes that the allocation of default customers amounts to
16 "slamming."

17 **Q. Do you agree with Mr. Hoffmann?**

18 A. No. Default customers are not deciding to stay, they are neglecting to
19 decide. Any customers who actually do decide upon a supplier will, of course,
20 have that choice respected. These customers would not be default customers.

21 I believe that Mr. Hoffmann is presumptuous in believing that he knows the
22 wishes of these customers. To allocate these customers to competitive suppliers
23 is not to undo a choice that the customer made. Rather, the Better Choice Plan
24 allocation is a pro-competitive process to stimulate competition and customer

1 choice.

2 As a practical matter, part of the allocation procedure could be to inform default
3 customers that they will be allocated to a particular supplier if they don't
4 affirmatively selected a supplier during a specified time period.

5 **Q. Ms. Barbara Alexander raises concerns about your proposal to allocate**
6 **default customers. What are her concerns?**

7 A. Ms. Alexander states that the allocation is a "legitimate option that the
8 Commission should explore" but that it is not "a practical alternative that should
9 be adopted for the phase-in period, at least" (OCA Statement No. 5R, Rebuttal
10 Testimony of Barbara Alexander, page 3). She goes on to elaborate on six
11 specific points (pages 4 through 6). These include: (1) it would be useful to have
12 customer education take place before an allocation in order to prepare
13 customers; (2) the Commission should conduct a rulemaking before making a
14 distinction between "default customers and other customers who enter and then
15 leave the competitive market;" (3) it is simple to require the utility to provide
16 default service; (4) conditions for suppliers to be eligible to provide default
17 service should be developed as part of a rulemaking process; (5) a competitive
18 bidding process should be considered as an alternative; and (6) it may not be
19 desirable to distinguish between provider of last resort service and default
20 service.

21 **Q. Do you agree with Ms. Alexander's rebuttal testimony?**

22 A. In large part, yes. Ms. Alexander and I appear to agree on key points. For
23 example, she states that "there may be significant anti-competitive effects when
24 the incumbent utility obtains all the default customers with no incremental cost"
25 (page 2). Moreover, I agree that the concerns she identifies are all legitimate

1 and should be addressed. Perhaps the difference between my perspective and
2 hers is with the urgency of action to address these issues. The proposal put
3 forward in my Direct Testimony in this case was obviously not a fully detailed
4 proposal ready to be implemented. It was offered as an attempt to constructively
5 move the process along. Parties should comment on it, and the proposal must
6 be developed in detail. In my view, however, this should take place over the
7 course of the next year, and should not wait until the end of the phase-in period.
8 The issue is simply too important. If we do not take steps to address the market
9 domination issue until several years into the transition, then competition will be
10 off to a bad start.

11 **Q. Does this conclude your surrebuttal testimony?**

12 A. Yes.

Economic Analysis of Duquesne Light Company's Perry 1 Investment

	Capital & Taxes (million \$)	Non-Fuel O&M (million \$)	Fuel (million \$)	Decom- missioning (million \$)	Total Nuclear Costs (million \$)	Value (million \$)	Net Excess Cost (million \$)	Present Value of Net Excess Cost at 8.0% (million \$)	Cumulative Present Value Losses (million \$)
1987	0	6	2	3	10	11	-1	-1	-1
1988	113	16	15	3	147	27	120	240	239
1989	108	22	0	3	131	22	109	203	442
1990	104	21	13	3	141	26	115	197	639
1991	102	16	16	3	137	33	104	166	805
1992	100	16	13	3	132	28	104	153	958
1993	97	20	8	3	129	18	111	151	1109
1994	95	26	10	3	134	19	114	144	1253
1995	97	18	15	3	134	30	103	121	1374
1996	110	18	10	3	141	31	111	120	1493
1997	111	25	8	3	147	38	109	109	1602
1998	110	19	9	3	140	45	95	88	1690
1999	97	26	9	3	135	41	94	80	1771
2000	94	23	9	3	129	46	81	64	1835
2001	85	28	9	3	125	44	81	59	1895
2002	84	29	10	3	125	51	74	50	1945
2003	76	30	9	3	118	47	71	44	1989
2004	59	30	10	3	102	55	48	28	2017
2005	54	32	9	3	98	50	48	26	2043
2006	14	24	10	3	51	56	-5	-2	2041
2007	16	24	9	3	52	51	2	1	2041
2008	14	25	11	3	54	59	-6	-2	2039
2009	16	28	10	3	55	53	1	0	2040
2010	14	27	11	3	56	61	-5	-2	2038
2011	15	28	12	3	57	56	1	0	2038
2012	14	29	12	3	59	65	-6	-2	2036
2013	16	30	11	3	60	59	1	0	2036
2014	14	31	13	3	61	68	-6	-2	2035
2015	16	32	12	3	62	62	1	0	2035
2016	14	33	14	3	65	71	-7	-2	2033
2017	16	40	13	3	72	65	7	1	2035
2018	14	36	15	3	68	75	-7	-1	2033
2019	16	43	13	3	75	68	7	1	2034
2020	14	38	15	3	71	78	-8	-1	2033
2021	16	45	14	3	77	72	5	1	2034
2022	14	38	15	3	71	83	-12	-2	2032
2023	16	45	14	3	77	75	2	0	2032
2024	14	38	15	3	71	87	-16	-2	2030
2025	16	45	14	3	77	79	-2	0	2030
2026	14	38	15	3	71	91	-20	-2	2028

Cumulative PV:

1987 - 1996	1394	274	161	47	1866	373	1493	1493
1997 - 2026	682	346	125	36	1190	655	535	535
1987 - 2028	2076	619	276	83	3055	1028	2028	2028

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Exhibit BEB-6

Economic Analysis of Duquesne Light Company's BV 2 Investment

	Capital, Taxes and Leas (million \$)	Non-Fuel O&M (million \$)	Fuel (million \$)	Decom- missioning (million \$)	Total Nuclear Costs (million \$)	Value (million \$)	Net Excess Cost (million \$)	Present Value of Net Excess Cost at 8.0% (million \$)	Cumulative Present Value Losses (million \$)
1987	0	5	5	2	11	8	3	7	7
1988	71	7	10	2	89	26	63	127	134
1989	69	10	6	2	87	20	67	124	258
1990	68	10	8	2	88	19	69	118	376
1991	66	12	9	2	89	27	62	98	474
1992	65	11	9	2	87	24	63	93	566
1993	63	14	7	2	85	22	64	87	653
1994	62	10	8	2	81	27	55	69	722
1995	60	11	7	2	80	23	57	66	788
1996	59	9	6	2	75	22	53	57	845
1997	65	9	5	2	80	34	46	46	890
1998	61	11	5	2	78	30	48	44	935
1999	61	13	5	2	79	31	48	41	976
2000	63	8	5	2	78	36	42	33	1010
2001	68	12	5	2	87	33	53	39	1049
2002	70	12	5	2	88	34	54	37	1086
2003	72	9	6	2	89	40	48	30	1116
2004	69	13	5	2	89	36	53	31	1147
2005	69	14	5	2	89	38	52	28	1175
2006	2	2	6	2	11	39	-27	-14	1161
2007	3	6	5	2	16	35	-19	-9	1152
2008	3	6	6	2	16	36	-20	-8	1144
2009	2	3	6	2	13	42	-29	-11	1133
2010	3	7	6	2	18	37	-19	-7	1126
2011	3	8	6	2	19	38	-20	-7	1119
2012	2	4	7	2	16	45	-30	-9	1110
2013	3	9	7	2	21	40	-20	-6	1104
2014	3	10	7	2	21	41	-20	-5	1098
2015	2	5	8	2	17	48	-31	-8	1091
2016	5	11	7	2	25	43	-18	-4	1087
2017	4	12	7	2	25	44	-19	-4	1082
2018	3	6	9	2	20	51	-31	-6	1076
2019	5	13	8	2	28	47	-18	-3	1073
2020	4	14	8	2	28	48	-19	-3	1069
2021	4	8	9	2	22	55	-33	-5	1064
2022	6	16	9	2	32	50	-18	-3	1062
2023	5	16	9	2	32	51	-19	-3	1059
2024	4	9	10	2	25	59	-34	-4	1055
2025	6	18	10	2	36	54	-18	-2	1053
2026	3	19	10	2	34	63	-29	-3	1050

Cumulative PV:

1987 - 1996	882	150	117	25	1173	328	845	845
1997 - 2026	482	117	71	19	669	464	205	205
1987 - 2026	1344	267	187	44	1842	793	1050	1050

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Assumptions for Economic Analysis of Perry 1 and Beaver Valley 2

The analyses in Exhibits BEB-5 and BEB-6 were based upon the following assumptions, selected from Duquesne data where possible. The analysis is a "first-cut" with inputs selected to be biased in favor of the nuclear units.

Capital and Taxes

For the period 1987 to 1996 the cost for Perry was estimated by adding a return on the undepreciated plant cost (at 10%) to the annual depreciation. For Beaver Valley 2, a similar approach was used, but with a lower return (8%) allowing for reduced costs from the sale-leaseback. For the period after 1996, figures from Exhibit DJC-3 were used. Property taxes were assumed to be \$11.3 million and \$0.4 million for Perry 1 and BV 2, respectively (from Exhibit DJC-3).

Non-Fuel O&M Cost

For the period through 1996, O&M data from UDI were used. For 1997 and beyond, O&M costs from Exhibit DJC-3 were used.

Nuclear Fuel Cost

For the period through 1996 fuel costs data from UDI were used. For 1997 and beyond, fuel costs from Exhibit DJC-3 were used.

Nuclear Decommissioning Costs

Annual decommissioning costs were taken from Exhibit DJC-3.

Nuclear Capacity Factors

Nuclear capacity factor data was taken from UDI and the NRC for the period through 1996. Capacity factor projections were taken from Exhibit RED-5 (1997), Exhibit MGK-5 (1998 through 2005), and Exhibit DJC-3 (2006 to 2026).

Market Value

The market value for energy for the period 1987 through 1995 was based upon the cost of coal delivered to utilities in the Middle-Atlantic Region, with 5 mill/kWh added for O&M. Capacity for this period was priced at \$40/kW-year. For the period 2006 through 2026, Duquesne's high case projection of market prices was used (from Exhibit DJC-3). For the period in between, prices were trended from 3.0 cents/kWh to the 2006 figure.

Net Excess Costs

Net excess costs are simply the difference between the nuclear costs and the market value of the power.

Present Value

The net excess costs were discounted at an annual rate of 8%, and summed.

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ENVIRONMENTALISTS STATEMENT NO. 3

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

APPLICATION OF DUQUESNE LIGHT COMPANY FOR
APPROVAL OF ITS RESTRUCTURING PLAN
UNDER SECTION 2806 OF THE PUBLIC UTILITY CODE

DOCKET NO. R-00974104

PREPARED DIRECT TESTIMONY

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SUBMITTED ON BEHALF OF:
THE ENVIRONMENTALISTS

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1 **Q. PLEASE STATE YOUR NAME AND ADDRESS.**
2 A. My name is Roger Colton. My address is 34 Warwick Road, Belmont, MA
3 02178.

4 **Q. FOR WHOM DO YOU WORK AND IN WHAT CAPACITY?**
5 A. I am a principal in the firm of Fisher, Sheehan & Colton, Public Finance and
6 General Economics (FSC). I provide technical assistance to a variety of public
7 utilities, state agencies and consumer organizations on rate and customer
8 service issues involving telephone, water/sewer, natural gas and electric utilities.
9 My resume is attached to my accompanying submission today (on behalf of the
10 City of Pittsburgh, NAACP, LIAP and Citizen Power) as Exhibit RDC-1.

11 **Q. PLEASE DESCRIBE YOUR INVOLVEMENT WITH THE DEBATES**
12 **CONCERNING RESTRUCTURING THE ELECTRIC INDUSTRY.**
13 A. I have been involved with electric restructuring throughout the nation. My work
14 has been with state and local governments, with the federal government, and
15 with a variety of community-based organizations. A description of my
16 involvement with electric restructuring issues is attached as Exhibit RDC-2 to my
17 accompanying submission today (on behalf of the City of Pittsburgh, NAACP,
18 LIAP and Citizen Power). I also testified earlier this year before this Commission
19 in the PECO Energy restructuring case, R-00973953.

20 **Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH THE DESIGN OF LOW-**
21 **INCOME UTILITY AFFORDABILITY PROGRAMS.**
22 A. I have been involved with designing low-income affordability programs for nearly
23 fifteen years. I have worked with electric and natural gas utilities, with state utility
24 commission staff, with community-based organizations, and with state
25 weatherization and fuel assistance offices to develop and implement affordable
26 rate programs, fuel assistance programs, and low-income energy efficiency
27 programs in nearly 25 states. A description of my involvement with the design of
28 low-income affordability programs is attached as Exhibit RDC-3, to my
29 accompanying submission today (on behalf of the City of Pittsburgh, NAACP,
30 LIAP and Citizen Power).

31 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY TODAY.**
32 A. The purpose of this testimony is to explain the policy rationale for the customer
33 market allocation pool proposed by the Environmentalists, the "Better Choice
34 Plan". I am providing this testimony on behalf of the Environmentalists group of
35 intervenors.

36 **1. PURPOSE OF THE TESTIMONY**

37 **Q. PLEASE DESCRIBE THE PURPOSE OF YOUR TESTIMONY TODAY.**
38 A. The purpose of this testimony is to provide the policy rationale and justification
39 for the market allocation proposal advanced by Mr. Bruce Biewald in this docket.

1 My purpose is to discuss the consumer research that provides an explanation for
2 why Mr. Biewald's proposal is not only reasonable, but necessary.

3 In brief, the failure to adopt the proposal advanced by Mr. Biewald will result in
4 an unfair competitive advantage to the incumbent utility as a consequence of
5 being allocated all of the default customers in the incumbent utility's service
6 territory. By default customers, we mean those customers that do not make an
7 affirmative choice to purchase electricity from Duquesne Light Co. ("the
8 Company") or another generation supplier. As Mr. Biewald states, the allocation
9 of default customers should advance the overall public interest purpose of the
10 Electricity Generation Customer Choice and Competition Act (the Act): to create
11 a robust, competitive electricity market that provides all customers with
12 meaningful choices of electricity suppliers while maintaining an affordable, safe
13 and reliable electric system for all parties.

14 2. FACTORS IN CHOOSING

15 **Q. HOW WOULD YOU CHARACTERIZE THE ACTIONS OF CUSTOMERS WHO** 16 **"CHOOSE NOT TO CHOOSE"?**

17 A. The phrase "choose not to choose" that has entered the parlance of electric
18 industry restructuring is a misuse of terminology. Talking about a "choose not to
19 choose" population implies the exercise of discretion on the part of the
20 consumer. Allocating those consumers to one default provider would thus
21 protect "consumer sovereignty" in exercising their "right" to elect not to choose.
22 Consumer choice implies that given preferences, a consumer will use his or her
23 knowledge of available alternatives to translate wants into satisfaction.

24 In fact, however, considerable consumer research finds that there is no
25 conscious exercise of discretion in the failure of consumers to choose an
26 alternative provider of service when an industry moves from a regulated
27 monopoly to a competitive model. Indeed, "staying put" is the antithesis of
28 exercising discretion. It is the failure to choose.

29 **Q. WHY MIGHT A CONSUMER "FAIL TO ACT" IN SELECTING AN** 30 **ALTERNATIVE CARRIER?**

31 A. One of the primary reasons why consumers fail to act is because of their lack of
32 knowledge. A failure to be able to rely on clear objective standards of
33 comparison will often lead to a failure to act at all.¹ Consumer research has
34 found that shopping based on a lack of adequate information promotes

¹ Ferguson, "Consumer Ignorance as a Source of Monopoly Power: FTC Staff Report on Self-Regulation, Standardization, and Product Differentiation," 5 *Antitrust Law and Economics Review* 2-79, 93 (1971 - 1972).

1 "shopping" based on habit.

2 High information costs also lead to a failure to act. When a consumer is given
3 the "choice" to enter into a new marketplace, the consumer must obtain and
4 digest sufficient information upon which to base a decision. The process of
5 acquiring such information, however, "costs" the consumer in time and money. If
6 the information is difficult to obtain or difficult to understand, consumers often do
7 nothing at all. Moreover, if highly conflicting information is presented, consumers
8 may fail to act to sort out the competing claims. Particularly during the initial
9 transition to a competitive market, the high search costs for consumers will lead
10 to a failure to act at all.

11 A third factor which leads consumers to a failure to act involves the perceived
12 risk that the savings identified by the consumer will, in fact, not occur. This
13 perceived risk may arise because the consumer is confused on how to engage in
14 the price and service shopping. Research finds that the more complex a product
15 and service, the more likely that such confusion will lead to inaction. The risk
16 may be attributable, as well, to a skepticism that the change of service suppliers
17 will be rewarded with stable rates over some period of time sufficient to justify
18 their investment in time and money.

19 Each of these circumstances leads not to the exercise of consumer choice, but
20 instead to consumer paralysis in decision-making. In each of these cases,
21 describing these consumers as "failing to act" is a much more accurate
22 description than describing them as "choosing not to choose."

23 **3. THE BETTER CHOICE PLAN AS A REMEDY FOR UNDUE CONCENTRATION**

24 **Q. HOW DOES THE "BETTER CHOICE PLAN" PROPOSED BY MR. BIEWALD**
25 **ADDRESS THESE ISSUES?**

26 **A.** In each case, jump-starting the competitive electric market will help address the
27 factors that led to the consumer paralysis in decision-making with which to begin.
28 Allocating consumers among service suppliers will help generate consumer
29 experience that will overcome confusion and skepticism. Allocating consumers
30 among service suppliers will help generate experience in seeking out and
31 understanding information. Allocating consumers will help overcome the simple
32 consume inertia that leads to a consumer failure to act. The allocation of
33 consumers for these purposes recognizes that these consumer characteristics
34 may be temporary and, therefore, that they may be treated through a transitional
35 market mechanism as proposed by Mr. Biewald.

36 **Q. WILL THE FAILURE TO ADOPT THE "BETTER CHOICE PLAN" YIELD**
37 **SUBSTANTIVE HARMS?**

1 A. Yes. We know from substantial consumer research that when customers are
2 confused and/or uninformed, they tend to engage in "index shopping." Index
3 shopping involves consumers relying on "indexes of quality" such as trade
4 marks, brand names, and company reputation. Allowing the entire default
5 market to be provided to a single service provider, whether that provider be a
6 new entrant, like ENRON in PECO's service territory, or the incumbent utility, will
7 allow that service provider to gain a competitive advantage in developing a
8 consumer perception of their "indexes of quality." As one analyst points out, "the
9 importance of this advantage is measured by the high price that is sometimes
10 asked and paid for the mere use of a name or trademark. In fact, the price for
11 which established goodwill is bought and sold may be regarded as a measure of
12 the value of oligopoly power that is due to buyers' ignorance."²

13 In addition, we know from substantial consumer research that it is much less
14 expensive for a company to retain a customer than for it to acquire a customer.
15 That is one reason that AT&T and MCI have both recently reported in
16 announcing their decision to substantially scale back their marketing to obtain
17 small user telecommunications customers. Allowing the entire default pool to be
18 served by one service provider, confers upon that service provider a competitive
19 advantage in seeking to keep those customers in the long-term.

20 Aside from the cost advantages of retaining customers (as opposed to acquiring
21 customers), there is a marketing advantage as well. Consumers tend to engage
22 in habit buying. Once they select (or are assigned) a service provider, they tend
23 to remain with that provider. This has been true in the telecommunications
24 industry. A similar situation arises in the market for open-ended credit cards:
25 even though interest rates may be higher than other available cards, consumers
26 tend to remain with the first-selected card. Renewal occurs automatically.
27 Allowing the entire default pool to be served by one service provider confers
28 upon that service provider a competitive advantage in retaining those customers
29 when the time for selection comes again.

30 Finally, in my research with respect to the commencement of
31 telecommunications competition, I found that it is generally reported that
32 advertising tends to yield economies of scale. Since new entrants to the market
33 will be of insufficient size to obtain these economies of scale, those entrants will
34 always face difficulties in gaining any substantial market foothold. Allowing the
35 entire default pool to be served by one service provider confers upon that service
36 provider a competitive advantage by conferring upon them a certain size, and
37 thus the economies of scale which accompany being bigger.

² Scitovsky, "Ignorance as a Source of Oligopoly Power," 40 *American Economic Review* 49, 52 (May 1950).

1 **4. PROTECTING LOW INCOME CUSTOMERS**

2 **Q. YOUR COMPANION TESTIMONY ADDRESSES A NUMBER OF UNIVERSAL**
3 **SERVICE ISSUES. WILL THE "BETTER CHOICE PLAN" TAKE AWAY SOME**
4 **OF THE PROVIDER OF LAST RESORT PROTECTIONS FROM LOW INCOME**
5 **CONSUMERS?**

6 **A.** Not at all. It is important to understand the distinction between the default
7 supplier and the provider of last resort. We are not suggesting any changes to
8 the concept of provider of last resort. The Company would remain the provider
9 of last resort and all of the consumer protections the concept entails would
10 continue. We are only suggesting a change in the default energy supplier.

11 Additional low income protections are included in our proposal. As explained in
12 more detail by Bruce Biewald, suppliers which choose to serve default customers
13 would agree to charge no more than the unbundled price for energy. They must,
14 of course, comply with applicable protections and service standards contained in
15 Chapter 56.

16 **5. CONCLUSION: ENHANCING COMPETITION**

17 **Q. DO YOU HAVE ANY FINAL OBSERVATIONS?**

18 **A.** Yes. Creating a mechanism that assigns the entire default pool to one service
19 provider will be inherently anti-competitive. Such a mechanism limits the service
20 suppliers who are "eligible" to be assigned this pool only to those suppliers who
21 are currently capable of serving the pool on an all-or-nothing scale. As a result,
22 the currently dominant service suppliers will be the only entities that are capable
23 of serving the pool. For all of the reasons I outline above, allowing them to be the
24 exclusive service provider will not only given them an immediate advantage, but
25 will give them a long term advantage as well, thus impeding accomplishment of
26 the public interest purpose of achieving robust competition in the electric market
27 which the Restructuring Act was intended to accomplish. In contrast to this
28 result, the "Better Choice Plan" will redound to both the short-term and long-term
29 benefit of Pennsylvania consumers.

30 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

31 **A.** Yes

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END