

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Duquesne Light Company :  
for approval of a Default Service Plan : Docket No. P-00072247  
for the period January 1, 2008 :  
through December 31, 2010 :

DOCUMENT  
FOLDER

DIRECT TESTIMONY OF

STEVEN W. RUBACK

ON BEHALF OF

CONSTELLATION NEWENERGY, INC.

**DOCKETED**  
MAY 08 2007

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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

Constellation NewEnergy Statement No. 1

Date Served: March 29, 2007

Date Admitted:

APR 26 2007 *Hug TR*



1 attorneys general and staff's of public utility commissions. My principal areas of  
2 concentration have been the electric and natural gas utility industries.

3  
4 I have provided expert testimony in numerous natural gas and electricity cases  
5 before regulatory commissions in Connecticut, Pennsylvania, Georgia, New  
6 Mexico, Virginia, and other jurisdictions. I have undertaken more than 400 utility  
7 assignments, and I have provided expert testimony in over 200 proceedings. I  
8 have specialized in gas and electric rate design, competitive issues, regulatory  
9 policy, gas transportation and gas supply.

10  
11 Since 1979, I have provided rate design and other services to the Virginia  
12 Municipal League and the Virginia Association of Counties in connection with  
13 contract negotiations with Virginia Power. The value of the Virginia Power  
14 contract exceeds \$250,000,000 annually. I have also provided these services to  
15 other associations of local governments in Virginia.

16  
17 With respect to my municipal utility work, I have completed numerous allocated  
18 costs of service studies and rate design assignments for the City of Richmond  
19 (Virginia) Department of Public Utilities and the Danvers (Massachusetts)  
20 Municipal Electric Utility.

21  
22 I graduated from Clarkson College of Technology in 1968 with a degree in  
23 Interdisciplinary Engineering & Management, and from the State University of

1 New York, School of Law, in 1973. I have not, however, practiced law since  
2 1976, and my current practice consists solely of providing utility consulting  
3 services.

4  
5 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

6 A. I was asked by Constellation NewEnergy to provide comments regarding the  
7 declining block rate design included in small commercial and industrial (small  
8 C&I) rate schedules General Service Small (GS), General Service Medium (GM)  
9 and General Service Medium Heating (GMH).

10  
11 Duquesne Light Company (the “Company” or “Duquesne”) has proposed to phase  
12 out the declining block rate design over three years.

13  
14 **Q. WHAT IS YOUR OPINION?**

15 A. It is my opinion that the declining block rate design should be eliminated swiftly  
16 in order to promote retail competition for the small commercial and industrial  
17 (C&I) customers. The elimination of the declining block rate design will provide  
18 for greater price transparency and, therefore, promote competition between the  
19 incumbent utility and non-utility suppliers.

20  
21 Complexity in rate design is not necessarily a virtue. A flat rate should be  
22 implemented when rates are reset in order to promote the attributes of a sound rate  
23 structure including simplicity and understandability.

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Historically, the declining block rate design was thought to drive economic development. Economic development, however, is not driven solely by a declining block rate design. Reliance on economic development considerations as support for the declining block rate design has been overstated, as economic development is driven by numerous other considerations including -- but not limited to -- taxes, workmen compensation and unemployment rates, the skill of the local workforce, and quality of life.

Declining block rate designs have been justified based on cost of service considerations. However, the theoretical underpinnings of the declining block rate design are no longer appropriate pricing policy because power supply pricing has moved from a cost of service basis to market pricing.

**Q. DOES A DECLINING BLOCK RATE DESIGN PROMOTE COMPETITION?**

A. No, a declining block rate design retards competition. Attributes of a sound rate structure include simplicity, understandability, public acceptability and freedom from controversy as to proper interpretation. (See Bonbright, Principles of Public Utility Rates, Second Edition, March 1998 at page 384).

Only 19% of small C&I customers shop for service in Duquesne's service territory. This small percentage is largely the product of a declining block rate

1 design. For laymen, the easiest comparison is average cost. Flat rates offered by  
2 non-utility suppliers do not decline as usage increases. The unit cost stays the  
3 same irrespective of consumption. On the other hand, the unit cost declines as  
4 consumption increases with a declining block rate design. Because the tail blocks  
5 are priced at less than average cost, the declining block rate design fails to  
6 promote competition. In order to better levelize the competitive playing field,  
7 declining block rate designs for small commercial and industrial customers should  
8 be eliminated immediately rather than being phased out over three years.

9  
10 Small commercial and industrial customers are not as able as large commercial  
11 and industrial customers to follow electric rate design issues. Confusion is to be  
12 avoided. For laymen, the declining block rate design is not a simple rate design  
13 which provides ease of price comparison. Customers must estimate usage and  
14 calculate an average rate based on the declining block rate design to compare  
15 against non-utility suppliers flat rates. The calculations are not necessarily free  
16 from controversy.

17  
18 Let me briefly illustrate such a source of complication. While the GS and GM  
19 rate schedules in Duquesne have two blocks, the GMH rate is a load factor rate.  
20 For the first 1,250 kilowatt-hours plus 150 kilowatt hours for each kilowatt-hour  
21 of demand over 6 kilowatts, the energy charge is about 7 cents. For kilowatt-  
22 hours in excess of the first 1,250 kilowatt-hours plus 150 kilowatt hours for each  
23 kilowatt-hour of demand over 6 kilowatts, the energy charge is about 3 cents.

1 Based on my experience this rate design confuses customers and does not lend  
2 itself to a simple comparison of competitive offers. In my judgment, the  
3 Commission should err on the side of simplicity and eliminate customer  
4 confusion in order to promote retail competition.

5  
6 **Q. DOES A DECLINING BLOCK RATE DESIGN PROVIDE A PROPER**  
7 **PRICE SIGNAL TO CUSTOMERS?**

8 A. No. A declining block rate design is inconsistent with conservation and is,  
9 therefore, not in the public interest. A declining block rate design promotes  
10 consumption of a scarce natural resource with lower than average prices in the tail  
11 blocks.

12  
13 Encouraging consumption via declining block rates or otherwise may eventually  
14 lead to the construction of more expensive new generating facilities causing  
15 average costs to increase. A declining block rate design might lower unit costs  
16 for customers in the short run, but in the long run a declining block design will  
17 increase average costs. If marginal costs are more than existing costs, it does not  
18 make economic sense to encourage consumption.

19  
20 **Q. DOES A DECLINING BLOCK RATE DESIGN PROMOTE ECONOMIC**  
21 **DEVELOPMENT?**

22 A. The declining block rate design may encourage economic development, but lower  
23 utility rates are not the sole driver of economic development. Business site

1 selection is complex and is not driven solely by a declining block rate design.

2 Companies are often faced with conflicting factors when deciding upon a site for  
3 business and struggle with determining the relative importance of those factors.

4 Factors in site selection, in addition to utility costs, include but are not limited to:

- 5 - Tax burdens;
- 6 - Incentives offered by state and local government;
- 7 - Availability of skilled workers;
- 8 - Transportation;
- 9 - Environmental considerations;
- 10 - General business climate;
- 11 - Rates for workmen's compensation insurance;
- 12 - Rates for unemployment insurance; and
- 13 - Quality of life.

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19 In my judgment, reliance on economic development considerations as support for  
20 the declining block rate design has been overstated as economic development is  
21 driven by numerous other considerations.

22  
23 **Q. WHAT IS THE UNDERLYING THEORY FOR A DECLINING BLOCK**  
24 **RATE DESIGN?**

25 A. The underlying theory of a declining block rate design is that the encouragement  
26 of consumption allows a utility to achieve economies of scale and economies of  
27 scale are obtained from large base load generating facilities. The importance of

1 economy of scale is, however, diluted when the cost of power supply is based on  
2 competitive considerations rather than cost of service. While high load factor  
3 loads command a relative better price in a competitive environment than low  
4 factor loads, the *absolute price* is not determined on a cost of service basis.

5  
6 If there is insufficient base load capacity to meet customers' normal requirements,  
7 the price of such generation will be higher than the cost of service. If there is  
8 excess capacity of the right mix (base load for normal consumption and peaking  
9 capacity for high usage periods) in the marketplace, the price of such generation  
10 will be lower than the cost of service. In a competitive environment, price is  
11 determined by supply and demand irrespective of the cost of service. For that  
12 reason, the theoretical underpinnings of the declining block rate design are no  
13 longer applicable because a continuation of this rate design makes dubious  
14 economic sense in today's competitive environment.

15  
16 **Q. WHAT IS THE REASON FOR THE PROPOSED PHASE OUT?**

17 A. The proposed three-year phase out will narrow the rate differentials between rate  
18 blocks. At the end of the proposed phase out, the rate differentials would be  
19 eliminated and a flat rate substituted for the declining block rate design. This  
20 approach would gradually reduce intra-class subsidies.

21  
22 In my judgment, the need to gradually phase out the declining block rate design is  
23 outweighed by competitive considerations (only 19% of small and medium

1           general service customers shop) and the need to eliminate a price signal which is  
2           inconsistent with the public interest.

3

4           I also recommend additional rate schedules with more homogeneous customers  
5           included in each new rate schedule in order to better reflect cost of service.

6

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

8   A.   Yes. Thank you.

9

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Petition of Duquesne Light Company :  
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REBUTTAL TESTIMONY OF

STEVEN W. RUBACK

ON BEHALF OF

CONSTELLATION NEWENERGY, INC.

DOCKETED  
MAY 08 2007

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SECRETARY'S BUREAU

Constellation NewEnergy Statement No. 1-R

Date Served: April 13, 2007

Date Admitted:

APR 26 2007

Rbg/jk

1 **Q. PLEASE STATE YOUR NAME.**

2 **A.** My name is Steven W. Ruback.

3

4 **Q. HAVE YOU FILED DIRECT TESTIMONY IN THIS PROCEEDING?**

5 **A.** Yes. I filed direct testimony on March 29, 2007 on behalf of Constellation  
6 NewEnergy, Inc. ("Constellation NewEnergy"), recommending that the declining  
7 block rate design for Small Commercial and Industrial ("Small C&I") customers  
8 be eliminated when new rates are effective rather than phasing out the existing  
9 declining block rate design over three years, as proposed by the Duquesne Light  
10 Company ("Duquesne" or "Company").

11

12 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

13 **A.** The purpose of my rebuttal testimony is to respond to the direct testimony of  
14 Brian Kalcic, filed on behalf of the Office of Small Business Advocate ("OSBA")  
15 on March 29, 2007, wherein OSBA acquiesced to the Company's proposed three-  
16 year phase-out of declining blocks and the implementation of flat rates by January  
17 1, 2010. *See* OSBA St. No. 1, p. 16, lines 14 -19.

18

19 **Q. WHAT IS THE PURPORTED BASIS FOR OSBA'S POSITION?**

20 **A.** OSBA's position is that a three-year phase-out will mitigate customer bill impacts  
21 attributable to the elimination of the declining block rate design and substitution of  
22 a flat rate design. *See* OSBA St. No. 1, p. 16, lines 14-19. OSBA's position

1 assumes that a three-year phase out is the only rate design approach to mitigate  
2 customer impacts. I disagree.

3  
4 **Q. IS THERE A RATE DESIGN METHOD THAT WOULD ALLOW FOR**  
5 **THE ELIMINATION OF THE DECLINING BLOCK RATE DESIGNS**  
6 **WITHOUT VIOLATING PRINCIPLES OF GRADUALISM?**

7 **A.** Yes. More homogeneous Small C&I flat rate schedules, or sub-classes within a  
8 broader rate schedule, should be designed to recover the same revenue as the  
9 proposed declining block rates. This approach would eliminate the need for a  
10 three-year phase-out of the declining block rate design *and* promote competition  
11 in the Small C&I market. In contrast, a three-year phase-out would provide some  
12 rate mitigation via gradualism, but would do little to promote competition. It is  
13 my judgment that large intra-class revenue shifts can be avoided while promoting  
14 competition.

15  
16 **Q. PLEASE EXPLAIN HOW MORE HOMOGENEOUS SMALL C&I FLAT**  
17 **RATE SCHEDULES WOULD MITIGATE CUSTOMER RATE IMPACTS.**

18 **A.** The declining block rate design is a cost-of-service rate designed to recover the  
19 generation revenue requirement in a bygone era of utility regulation when utilities  
20 owned generation. Today, in Pennsylvania, generation rates are based on market  
21 conditions. If the cost of service is not the retail pricing basis and there is  
22 insufficient evidence to conclude that the cost of service differences in the

1 existing declining block rate design are attributable to current market conditions,  
2 the basic ratemaking theory of the declining block rate design is no longer valid.

3  
4 Declining block rate designs are based on class load factors. As the load factor  
5 improves, the average rate declines for customers with higher load factors than  
6 the average load factor. Conversely, low load factor customers, in the same rate  
7 schedule, will have a higher average rate.

8  
9 The support for a three-year phase-out is to mitigate customer impacts from the  
10 change to flat rates. If higher load factor customers were billed on a flat rate,  
11 customer revenues would increase from these customers. If lower load factor  
12 customers were billed on a flat rate, customer revenues would decrease from these  
13 customers.

14  
15 The difference in customer revenues from the declining block rate design to flat  
16 rates may run counter to principles of gradualism. There is, however, a rate  
17 design method that would promote competition and avoid gradualism problems  
18 caused by a shift to flat rates.

19  
20 Instead of a single flat rate for all customers, more homogeneous customers  
21 should be grouped in new rate schedules, according to load factor, with a flat rate.  
22 That flat rate should recover the same revenues as the average rates billed on the  
23 existing declining block rate design. This would eliminate the need for

1 gradualism because average prices would remain nearly the same for customers  
2 and, at the same time, provide a boost to competition in the Small C&I market.  
3

4 **Q. PLEASE DISTINGUISH THE USE OF GRADUALISM WHEN RATES**  
5 **ARE BASED ON COST OF SERVICE PRINCIPLES AND WHEN RATES**  
6 **ARE BASED ON COMPETITIVE CONDITIONS.**

7 **A.** When there are no competitive issues, rates are based on the cost to serve and are  
8 tempered by gradualism when rates based on solely on the cost of service would  
9 produce rate shock, disproportionate increases on customers within a particular  
10 rate schedule, or an inequitable allocation of revenue requirement among the  
11 classes of service.

12  
13 When there are competitive issues, gradualism is of less importance than in  
14 circumstances when cost of service principles control. When there is competition,  
15 value of service principles are the primary consideration. Value of service sets  
16 rates at the cost of a competitive alternative, not at the cost of providing utility  
17 service.

18  
19 Customers should be assumed to act in their own self interest. If the cost of a  
20 competitive alternative is less than utility rates, customers will choose the  
21 competitive alternative regardless of whether the higher utility price was set using  
22 principles of gradualism to reduce the rate from a higher pure cost of service  
23 price. The rate design theory is that some contribution to fixed costs is better than

1 no contribution at all. In such circumstances, gradualism is of less importance  
2 than with traditional cost of service ratemaking without competitive issues.

3  
4 In this case, I have proposed more homogeneous rate schedules, based on load  
5 factor, with flat rates. My proposal eliminates the need to phase out the declining  
6 block rate design in three-years because the circumstances requiring the  
7 application of gradualism are not present. Each customer group will pay the same  
8 average rate under a flat rate design as under a declining block rate design with  
9 less customer load factor groupings. Since flat rates will improve competition  
10 without violating principles of gradualism, competition should be promoted.

11  
12 **Q. DOES THAT CONCLUDE YOUR REBUTTAL TESTIMONY?**

13 **A.** Yes. Thank you.

14