

1 **Q. Mr. Biewald, please state your name, position and business address.**

2 A. My name is Bruce E. Biewald. I am the President of Synapse Energy Economics,
3 Inc, 22 Pearl Street, Cambridge, MA 02139.

4 **Q. Mr. Schlissel, please state your name, position and business address.**

5 A. My name is David A. Schlissel. I am a Senior Consultant at Synapse Energy
6 Economics, Inc, 22 Pearl Street, Cambridge, MA 02139.

7 **Q. On whose behalf are you testifying in this case?**

8 A. We are testifying on behalf of the New Jersey Division of the Ratepayer Advocate
9 (“Ratepayer Advocate”).

10 **Q. Please describe Synapse Energy Economics.**

11 A. Synapse Energy Economics ("Synapse") is a research and consulting firm
12 specializing in economic and policy analysis of the electricity industry,
13 particularly issues of consumer protection, market power, electricity market
14 prices, stranded costs, efficiency, renewable energy, environmental quality, and
15 nuclear power.

16 **Q. Mr. Biewald, please summarize your educational background and recent
17 work experience.**

18 A. I graduated from the Massachusetts Institute of Technology in 1981, where I
19 studied energy use in buildings. I was employed for 15 years at the Tellus
20 Institute, where I was Manager of the Electricity Program, responsible for studies
21 on a broad range of electric system regulatory and policy issues. I have testified
22 on energy issues in more than seventy regulatory proceedings in twenty-five
23 states, two Canadian provinces, and before the Federal Energy Regulatory
24 Commission. I have co-authored more than one hundred reports, including
25 studies for the Electric Power Research Institute, the U.S. Department of Energy,
26 the U.S. Environmental Protection Agency, the Office of Technology
27 Assessment, the New England Governors' Conference, the New England
28 Conference of Public Utility Commissioners, and the National Association of

1 Regulatory Utility Commissioners. My papers have been published in the
2 *Electricity Journal, Energy Journal, Energy Policy, Public Utilities Fortnightly*
3 and numerous conference proceedings, and I have made presentations on the
4 economic and environmental dimensions of energy throughout the U.S. and
5 internationally. Recently I have been consulting for federal agencies, including
6 the Department of Energy, the Department of Justice, the Environmental
7 Protection Agency, and the Federal Trade Commission. My resume is provided
8 here as Exhibit BEB/DAS-1.

9 **Q. Mr. Biewald, have you testified previously before the Board of Public**
10 **Utilities (“BPU”)?**

11 A. Yes. I have testified in BPU Docket Nos. EX94120585Y, EO97070460,
12 EO97070463, and EM00110870.

13 **Q. Mr. Schlissel, please summarize your educational background and recent**
14 **work experience.**

15 A. I graduated from the Massachusetts Institute of Technology in 1968 with a
16 Bachelor of Science Degree in Engineering. In 1969, I received a Master of
17 Science Degree in Engineering from Stanford University. In 1973, I received a
18 Law Degree from Stanford University. In addition, I studied nuclear engineering
19 at the Massachusetts Institute of Technology during the years 1983-1986.

20 Since 1983 I have been retained by governmental bodies, publicly-owned utilities,
21 and private organizations in 24 states to prepare expert testimony and analyses on
22 engineering and economic issues related to electric utilities. My clients have
23 included the Staff of the California Public Utilities Commission, the Staff of the
24 Arizona Corporation Commission, the Staff of the Kansas State Corporation
25 Commission, the Arkansas Public Service Commission, municipal utility systems
26 in Massachusetts, New York, Texas, and North Carolina, and the Attorney
27 General of the Commonwealth of Massachusetts.

28 I have testified before state regulatory commissions in Arizona, New Jersey,
29 Connecticut, Kansas, Texas, New Mexico, New York, Vermont, North Carolina,

1 South Carolina, Maine, Illinois, Indiana, Ohio, Massachusetts, Missouri, and
2 Wisconsin and before an Atomic Safety & Licensing Board of the U.S. Nuclear
3 Regulatory Commission.

4 A copy of my current resume is attached as Exhibit BEB/DAS-2.

5 **Q. Mr. Schlissel, have you testified previously before the Board of Public**
6 **Utilities?**

7 A. Yes. I have testified in BPU Dockets Nos. ER89110912J, ER96030257 and
8 EM00110870.

9 **Q. What is the purpose of your testimony?**

10 A. Synapse was retained by the Ratepayer Advocate to examine market power
11 issues related to the proposed merger between Conectiv, Potomac Electric Power
12 Company (“Pepco”) and New RC, Inc. (“New RC”).¹ The Petitioners in this
13 docket are Atlantic City Electric Company, Conectiv Communications, Inc. and
14 New RC. This testimony presents the results of our analyses and investigations.

15 **Q. Please explain how Synapse conducted its investigations and analyses on**
16 **these issues.**

17 A. We reviewed the Petitioners’ May 11, 2001 Petition, Testimony and Exhibits. We
18 also reviewed the testimony filed by the Petitioners at FERC and the Maryland
19 Public Service Commission. In addition, we prepared some of the data requests
20 that the Ratepayer Advocate submitted to the Petitioners and reviewed the
21 responses that the Petitioners submitted to our data requests and to those
22 submitted by the other active parties in this proceeding. Finally, we reviewed the
23 responses that the Petitioners provided to the data requests submitted by the active
24 parties to proceedings in Maryland, Delaware and Virginia.

25 **Q. Please summarize your conclusions.**

26 A. We have concluded that:

- 1 1. The BPU should not approve the merger as currently proposed. The
2 Petitioners have not proved that the merger will provide ratepayer benefits
3 by promoting competition in the New Jersey electric market or that
4 competition and ratepayers will at least not be harmed by the merger.
5 Before approving the proposed merger, the BPU should require the
6 Petitioners to present a more detailed assessment of market concentration
7 and market power. This analysis would require the use of an electric
8 system simulation model to look at the hourly behavior of the market
9 under a wide variety of physical conditions, contractual situations and
10 bidding behaviors.
- 11 2. If the BPU does approve the merger, it should require full on-going
12 disclosure of the activities of the Petitioners' affiliates in the energy
13 markets (including forward contracts and options) and should create a
14 mechanism for addressing market power if and when it arises.

15 **Q. Have the Petitioners presented any evidence that the proposed merger**
16 **between Conectiv and Pepco will produce any positive benefits for**
17 **competition and ratepayers or at least not have any adverse effect on**
18 **ratepayers and competition in New Jersey?**

19 A. No. The only “evidence” presented by the Petitioners was a single paragraph
20 which presented the unsupported opinion of Dr. Pace that there is no anti-
21 competitive downside to the merger.²

22 **Q. What factors did Dr. Pace cite in support of his claim that the proposed**
23 **merger will not result in diminished competition?**

24 A. Dr. Pace cited the fact that the merged companies would own or have contracts
25 for only about 10 percent of the generation capacity in PJM when Conectiv's

¹ Throughout the remainder of this testimony we will refer to Conectiv and Pepco as the Petitioners.

² Testimony of Joe D. Pace, at page 26, line 19, to page 27, line 7.

1 planned divestiture was completed and stated that that Conectiv had withdrawn
2 from the provision of unregulated electricity and natural gas services.

3 **Q. Are these reasons persuasive?**

4 A. No. As we will discuss later in this testimony, the merged companies' control of
5 mid-merit generating facilities is of concern even if their overall share of total
6 PJM capacity is only 10 percent.

7 At the same time, the Petitioners have refused to provide any information
8 concerning Conectiv's withdrawal from the provision of unregulated electricity
9 and natural gas services.³ Therefore, it is impossible to assess the implications of
10 this action for the proposed merger.

11 **Q. Have the Petitioners submitted any evidence at FERC on the potential**
12 **competitive implications of the proposed merger?**

13 A. Yes. The Petitioners presented an analysis of the horizontal and vertical market
14 power consequences of the proposed merger.

15 **Q. What is horizontal market power?**

16 A. Horizontal market power in electricity generally arises from horizontal
17 concentration in generation. A key mechanism for exploiting horizontal market
18 power is for a firm to raise market prices by withholding capacity from the
19 market, raising the market price and thereby increasing profits over competitive-
20 market levels. The withholding can be "physical," such as declaring a unit to be
21 out of service, or "economic," such as bidding some capacity at high prices that
22 effectively remove it from the dispatch. Sophisticated strategies can be
23 developed, in which bidding generation into the market is done in order to
24 maximize profits – with bids differing by hour and tailored to create and exploit
25 transmission constraints.

³ Petitioners' response to Question No. NJRAR MP 1-9.

1 **Q. What is vertical market power?**

2 A. Vertical market power refers to the ability of a firm that is involved in two related
3 activities, such as electricity generation and transmission, to use its dominance in
4 one area to raise prices and increase profits for the overall enterprise.

5 **Q. Have the Petitioners explained why they submitted this market power
6 analysis at FERC but not in this proceeding before the BPU?**

7 A. The Petitioners have said Dr. Pace’s FERC testimony was prepared for the
8 purpose of meeting FERC requirements for merger applications, while the
9 testimony filed by Dr. Pace in the BPU petition was prepared for the purpose of
10 meeting statutory and regulatory requirements for approval by the BPU.⁴
11 According to the Petitioners, “the requirements for each filing are different
12 because FERC and the New Jersey BPU have jurisdiction over different issues.”

13 **Q. Have other petitioners filed market power analyses when they sought the
14 approval of the BPU for proposed mergers?**

15 A. Yes. For example, FirstEnergy and GPU submitted a market power analysis
16 when they sought approval to merge from the BPU.⁵

17 **Q. Has Petitioners’ witness Dr. Pace ever concluded that a proposed merger did
18 raise competitive concerns?**

19 A. No. Although Dr. Pace has given testimony (including affidavits) many times
20 regarding the competitive implications of proposed mergers, he has never
21 concluded that the proposed merger raised competitive concerns that should
22 impede approval of the merger.⁶

⁴ Petitioners’ response to Question No. NJRAR MP 3-29.

⁵ See I/M/O the Joint Petition of FirstEnergy Corp. and Jersey Central Power and Light Company, d/b/a GPU Energy, for Approval of a Change in Ownership and Control of a New Jersey Public Utility and Other Relief, BPU Docket No. EM00110870, Exhibit P-6 (Testimony of Rodney Frame).

⁶ Petitioners’ response to Question NJRAR-MP 1-11.

1 **Q. Has Dr. Pace’s firm, LECG, LLC, ever concluded that a proposed merger**
2 **raised competitive concerns?**

3 A. The Petitioners have refused to provide an answer to this question.⁷

4 **Q. Is the type of analysis that the Petitioners have submitted to FERC adequate**
5 **to show that the merger will produce positive benefits or at least not have an**
6 **adverse effect on competition in New Jersey?**

7 A. No. The analysis presented by the Petitioners at FERC merely attempted to show
8 that the proposed merger met FERC’s Appendix A guidelines in terms of post
9 merger concentration. It did so by examining post-merger Herfindahl-Hirschman
10 Indices (“HHI”). The HHI is the sum of the squares of individual firms’ market
11 shares. The higher the index number the greater the level of concentration and the
12 more likely that market power will be a problem.

13 In their merger guidelines, the FERC and the U.S. Department of Justice use the
14 HHI as a screening tool to identify whether market power might be a problem.⁸
15 FERC specifically notes that the HHI screening tool is “not infallible” and “in
16 some cases may not detect certain market power problems.”⁹

17 Although HHIs are a useful measure that can serve as a starting point in analyses
18 of market power, they are only rough illustrations of relative market
19 concentration. At the same time, HHI calculations are based on a limited set of
20 snapshots of the markets examined in terms of loads, resources, and transmission
21 capacities. There may be situations during a typical year when loads and
22 transmission capacities differ from those studied and actual post-merger market
23 shares may be higher. The most significant failure of HHI calculations is their

⁷ Petitioners’ response to Question NJRAR-MP 1-12.

⁸ U.S. Department of Justice and Federal Trade Commission Horizontal Merger Guidelines, April 2, 1992, and FERC Policy Statement Establishing Factors the Commission will Consider in Evaluating Whether a Proposed Merger is Consistent with the Public Interest, December 18, 1996.

⁹ *FERC Policy Statement Establishing Factors the Commission Will Consider in Evaluating Whether a Proposed Merger is Consistent with the Public Interest*, December 18, 1996, at page 25.

1 inability to recognize strategic bidding or the withholding of otherwise available
2 capacity in order to increase market clearing prices.

3 A proper analysis of the market power implications of the proposed merger would
4 require an electric system simulation model to look at the hourly behavior of the
5 market under a wide variety of physical conditions, contractual situations and
6 bidding behaviors. Such a more realistic model would provide better insight into
7 potential market power concerns than just a formalistic HHI calculation.

8 **Q. What are the characteristics of a perfectly competitive market?**

9 A. A perfectly competitive market would have the following four characteristics:

- 10 1. A large number of firms in each submarket.
- 11 2. No one firm alone can influence the market price.
- 12 3. Easy entry and exit to the markets.
- 13 4. Firms attempt to maximize profits.

14 **Q. Do these characteristics apply to the electric industry in general or the PJM**
15 **markets in particular?**

16 A. While “perfectly competitive markets” exist only in economics textbooks, many
17 markets are reasonably close to the competitive ideal, and can be considered
18 “workably competitive.” Electricity markets (including PJM’s markets) are quite
19 far from the competitive ideal and there are compelling reasons for consumers and
20 regulators to be concerned. The only characteristic of the four listed above that
21 appears to be present in current electricity markets is number four – that firms
22 attempt to maximize their profits.

23 The first characteristic of a perfectly competitive market, i.e., that there are a large
24 number of firms in each submarket, is rarely satisfied in electricity markets when
25 submarkets are defined to include local areas subject to transmission constraints
26 and/or time periods with tight supply.

1 The second characteristic of a perfectly competitive market, i.e., that firms are
2 “price takers,” optimizing their operations with market prices as a given rather
3 than attempting to influence the market price, is not true in electricity markets, in
4 general, or PJM, in particular. Conectiv has indicated that it is able to set the
5 market clearing price 40 percent of the time.¹⁰ Such a company is not a “price
6 taker,” and its presence in a market is a cause for concern. In electricity markets,
7 with a nearly inelastic short-run demand (i.e., customer electricity consumption is
8 only modestly reduced in response to price spikes), the ability of a firm with even
9 a small market share of the total supply to influence the market price can be
10 tremendous.

11 The third characteristic, i.e., that there is easy market entry and exit, does not
12 apply to electric generation markets. The industry is very capital intensive.
13 Building a new combined-cycle generating facility can cost approximately
14 \$600/kW and take several years. Market entry in electricity generation can be a
15 very important factor over the medium term (a couple of years and longer) but
16 offers very little comfort to customers confronted by high prices in the short run.

17 **Q. Are there any reasons why an HHI analysis might understate the extent to**
18 **which market power could be a problem in the electric industry?**

19 A. Yes. There are a number of factors that suggest the electric industry may be more
20 susceptible to the exercise of market power than would be apparent from HHI
21 calculations:

- 22 • The very limited opportunities to store large quantities of electricity. As a
23 result, the supply of, and demand for, electricity must balance over very
24 short time intervals which means that there may be short-run opportunities
25 for companies to take advantage of shortages in a way that could not occur
26 if other suppliers or purchasers can readily and inexpensively store some
27 inventory of the product.

¹⁰ *Conectiv Investor Presentation, June 12-13, 2001*, at page 15.

- 1 • The difficulty of substituting other energy sources for electricity in the
2 short term.
- 3 • The dynamic nature of electricity markets which can change dramatically
4 over the course of a few hours, thereby creating opportunities for the
5 exercise of market power even though the market may be relatively
6 competitive under most circumstances.
- 7 • The limited opportunities for real-time demand response in current
8 electricity markets.
- 9 • The fact that electricity can only flow over a limited number of existing
10 transmission facilities and that new generation and transmission facilities
11 are very capital intensive and require long-lead times to bring into
12 operation.

13 **Q. In the course of his work, did Dr. Pace prepare an HHI analysis of the level**
14 **of concentration in the California energy markets?**

15 A. Yes. Dr. Pace conducted such an analysis in 2000 for PG&E. Dr. Pace concluded
16 that both the California and Northern California energy markets were “relatively
17 unconcentrated” for all periods examined because the HHIs he calculated were
18 below 1,204.¹¹

19 **Q. Did Dr. Pace’s calculated HHIs accurately predict the ability of generators in**
20 **California to exercise market power?**

21 A. No. Events in California have shown that generation owners have been able to
22 raise prices by exercising market power even in off-peak hours. For example, a
23 report by the California Independent System Operator’s Department of Market
24 Analysis issued last May has concluded that 30 percent of wholesale energy costs

¹¹ *Settlement Agreement for Valuation and Disposition of Hydroelectric Assets, Chapter 6, Market Power Analysis and Assessment of the Proposed Settlement Agreement, Supporting Testimony, August 11, 2000, at page 6-33, provided as Attachment 3 to the Petitioners’ response to Question NJRAR-MP 1-10.*

1 during calendar year 2000 could be attributed to the exercise of market power
2 (i.e., that wholesale energy costs were about 30 percent higher than they would
3 have been in the absence of market power).¹² The California Independent System
4 Operator (“CAL ISO”) also found that wholesale energy prices exceeded the
5 competitive benchmark **in all hours, under a variety of system conditions:**

6 The results illustrate that market power abuse is not limited to hours
7 when a deficiency in operating reserves requires the ISO to declare a
8 System Emergency, much less hours in which a Stage 3 emergency
9 has been declared. The data demonstrate that over the most recent 12-
10 month period (including the first two months of 2001) the gap between
11 actual wholesale prices and the proper competitive level (which takes
12 into account spikes in natural gas prices) *continues to grow*. (emphasis
13 in original)¹³

14 In fact, the CAL ISO has concluded that less than 2% of the hourly bidding
15 profiles by the five large in-state generation owners during the period May
16 through November 2000 displayed no clear pattern of withholding or market
17 power.¹⁴ The other 98% of the hourly bidding profiles displayed various patterns
18 leading to inflated market prices. CAL ISO subsequently stated that it was unable
19 to identify any hours during the period May 2000 through November 2000 in
20 which one of the generation owners, Williams Energy Marketing & Trading
21 Company, “did not engage in physical or economic withholding.”¹⁵

22 According to CAL ISO, during the ten month period, May 2000 to February 2001,
23 the degree of market power observed in California wholesale markets had

¹² *Comments of the California Independent System Operator Corporation on FERC Staff’s Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market*, dated March 22, 2001, at page 8. These comments are available at the California ISO’s website at www1.caiso.com/pubinfo/FERC/filings/.

¹³ Ibid.

¹⁴ *Empirical Evidence of Strategic Bidding in California ISO Real-time Market*, Anjali Sheffrin, Director, Department of Market Analysis, CAL ISO, March 21, 2001, at page 8. This report available at the California ISO’s website at www1.caiso.com/pubinfo/FERC/filings/.

¹⁵ *Motion to Intervene and Protest of the California Independent System Operator Corporation*, April 2, 2001, in FERC Docket No. ER99-1722-004, at page 10. A copy of this Motion is available at the California ISO’s website at www1.caiso.com/pubinfo/FERC/filings/.

1 represented additional total costs of \$6.8 billion.¹⁶ Only about \$600 million of
2 these additional costs were incurred during hours of potential resource scarcity, so
3 that, “even excluding these hours, wholesale energy costs had been driven up over
4 \$6.2 billion since May 2000, by the exercise of market power.”¹⁷

5 **Q. Are there any reasons why the BPU should be concerned about this**
6 **particular merger between Conectiv and Pepco?**

7 A. Yes. Conectiv has had the strategy of retaining, operating and increasing its share
8 of the mid-merit generation business. Mid-merit units are electric generating
9 plants that can quickly increase or decrease their KWH output levels. According
10 to Conectiv and Pepco, mid-merit plants are generally operated during times when
11 the demand for electricity rises, in contrast to base load electric generating plants,
12 which are designed to run almost continuously to supply the base level of
13 demand.¹⁸

14 This mid-merit capacity has the ability to ramp up quickly in order to capture
15 value in the wholesale marketplace.¹⁹ **[START CONFIDENTIAL]**

16

17

18 **[END CONFIDENTIAL]**²⁰

19

¹⁶ *Comments of the California Independent System Operator Corporation on FERC Staff's Recommendation on Prospective Market Monitoring and Mitigation for the California Wholesale Electric Power Market*, dated March 22, 2001, Attachment B, at page 10. These comments are available at the California ISO's website at www1.caiso.com/pubinfo/FERC/filings/.

¹⁷ Ibid.

¹⁸ Petitioners' response to Staff Data Request No. 2 in Maryland Public Service Commission Case No. 8890.

¹⁹ *Conectiv Investor Presentation, June 12-13, 2001*, at page 15.

²⁰ **REDACTED**

1 As of June 2001 Conectiv had 1,140 MW, or 12% of the 9,500 MW, of the mid-
2 merit capacity in PJM.²¹ Conectiv's mid-merit capacity has set prices in PJM 40
3 percent of the hours.²²

4 Conectiv also is seeking to build up to 4,000 MW of mid-merit capacity
5 throughout the PJM region.²³ As a result, Conectiv will have more than the 12
6 percent share of mid-merit capacity within PJM that it now controls and will be
7 able to set market prices for a significant number of hours.

8 The HHI analysis submitted by the Petitioners to FERC does not capture the
9 potential implications of this concentration of control of mid-merit units.

10 **Q. What incentive would the merged companies have to exercise market power**
11 **through their control of mid-merit units?**

12 A. The merged companies generally would have an incentive to raise market clearing
13 prices in order to increase the profits earned by selling energy or the profits of
14 affiliates involved in energy futures or options markets even if New Jersey
15 ratepayers had to bear higher prices. There might also be hours when the merged
16 companies might want to lower market clearing prices in order to adversely affect
17 competitors.

18 At a Conectiv presentation to investors on June 12 and 13, 2001, Conectiv
19 expressed its intention of "accelerating [its] market-leading, mid-merit position in
20 PJM" by tripling its mid-merit and peaking capacity by 2004.²⁴ In our opinion, the
21 merger could further enhance the merged companies' control of mid-merit and
22 peaking capacity within PJM and also might enhance the merged companies'
23 ability to profit from the activities of unregulated affiliates in the energy futures
24 and options markets.

²¹ *Conectiv Investor Presentation, June 12-13, 2001*, at page 15.

²² Ibid.

²³ Petitioners' response to OPC Data Request No. 7, Question No. 11, in Maryland Public Service Commission Case No. 8890 and Petitioners' response to Question No. NJRAR-MP 2-16.

²⁴ Exhibit BEB/DAS-3, *Conectiv Investor Presentation, June 12-13, 2001*, at page 20.

1 **Q. Have the Petitioners provided any information concerning current or**
2 **projected activities of their affiliates in the markets for electricity futures or**
3 **options?**

4 A. No. The Petitioners have refused to provide this information.²⁵

5 **Q. Have the Petitioners answered any discovery questions concerning the**
6 **strategy of focusing on mid-merit units?**

7 A. No. Although the Petitioners have provided a few documents that mentioned the
8 mid-merit strategy, they have so far refused to answer the specific questions we
9 asked or to provide the documents we requested about the strategy of focusing on
10 mid-merit units.²⁶ Consequently, we have been unable to determine the potential
11 impact of the proposed merger on this strategy and on the merged companies'
12 ability to exert market power through their control of mid-merit and peaking
13 generation.

14 **Q. Does Dr. Pace address the issue of vertical market power?**

15 A. Dr. Pace only provides a cursory discussion of vertical market power in his
16 testimony in this proceeding.²⁷

17 **Q. Does the proposed merger raise significant vertical market power concerns?**

18 A. It is clear that Conectiv's subsidiary, CESI, has been a significant trader of
19 electricity, gas, oil, and coal.²⁸ However, the Petitioners have failed to provide
20 any detailed information about the activities of the unregulated affiliates of either
21 Conectiv or Pepco in PJM. Consequently, we are unable to determine whether the
22 merger raises significant vertical market power concerns.

²⁵ Petitioners' response to Question No. NJRAR-MP 3-30.

²⁶ Petitioners' responses to Questions NJRAR-MP 1-7 and NJRAR-MP 1-8.

²⁷ Testimony of Joe D. Pace, at page 27.

²⁸ Prepared FERC Testimony of Joe D. Pace, at page 22, lines 12-15.

1 **Q. Should the BPU approve the proposed merger?**

2 A. No. The BPU should not approve the merger as currently proposed. The
3 Petitioners have not proved that the merger will benefit ratepayers and promote
4 competition in the New Jersey electric market or that ratepayers and competition
5 will at least not be harmed by the merger. Before approving the proposed
6 merger, the BPU should require the Petitioners to present a more detailed
7 assessment of market concentration and market power. This analysis would
8 require the use of an electric system simulation model to look at the hourly
9 behavior of the market under a wide variety of physical conditions, contractual
10 situations and bidding behaviors.

11 **Q. What conditions should the BPU impose if it does decide to approve the**
12 **proposed merger at this time?**

13 A. If the BPU does approve the merger, it should require full on-going disclosure of
14 the activities of the Petitioners' affiliates in the energy markets (including forward
15 contracts and options) and should create a mechanism for addressing market
16 power if and when it arises.

17 **Q. Does this conclude your testimony?**

18 A. Yes.