

**BEFORE THE STATE OF NEW JERSEY  
OFFICE OF ADMINISTRATIVE LAW  
BOARD OF PUBLIC UTILITIES**

**I/M/O THE JOINT PETITION OF PUBLIC )  
SERVICE ELECTRIC AND GAS COMPANY ) BPU DKT. NO. EM05020106  
AND EXELON CORPORATION FOR ) OAL DKT. NO. PUC-1874-05  
APPROVAL OF A CHANGE IN CONTROL )  
OF PUBLIC SERVICE ELECTRIC AND GAS )  
COMPANY AND RELATED AUTHORIZATIONS )**

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**SUPPLEMENTAL TESTIMONY OF  
ROBERT FAGAN AND DAVID SCHLISSEL ON BEHALF OF THE  
NEW JERSEY DIVISION OF THE RATEPAYER ADVOCATE**

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**SEEMA M. SINGH, ESQ.  
RATEPAYER ADVOCATE**  
Division of the Ratepayer Advocate  
31 Clinton Street, 11th Floor  
P. O. Box 46005  
Newark, New Jersey 07101  
(973) 648-2690 - Phone  
(973) 624-1047 - Fax  
[www.rpa.state.nj.us](http://www.rpa.state.nj.us)  
[njratepayer@rpa.state.nj.us](mailto:njratepayer@rpa.state.nj.us)

Filed: March 17, 2006

1 **I. INTRODUCTION**

2 **Q. Mr. Fagan, please state your name, position and business address.**

3 A. My name is Robert M. Fagan. I am a Senior Associate at Synapse Energy  
4 Economics, Inc., 22 Pearl Street, Cambridge, MA 02139.

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

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

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

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

11 **Q. Have you previously submitted testimony in this proceeding?**

12 A. Yes. We submitted Direct Testimony on November 14, 2005 and Surrebuttal  
13 Testimony on December 27, 2005.

14 **Q. What is the purpose of this Supplemental Testimony?**

15 A. The purpose of this Supplemental Testimony is to respond to the Merger Analyses  
16 prepared by PJM’s Market Monitoring Unit (“MMU”) in May and October 2005  
17 and February and March 2006 and to the testimony presented in this proceeding  
18 by Dr. Joseph Bowring from the MMU.

19 **Q. Please summarize the conclusions of this Supplemental Testimony.**

20 A. Our conclusions are as follows:

- 21       ▪ The results of the MMU PJM Hourly Aggregate Energy Market analyses  
22 do not show that the proposed merger satisfies the “Positive Benefits”  
23 standard that the NJ Board of Public Utilities (“BPU”) has determined it

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1 will apply in this proceeding.<sup>1</sup> Indeed, Dr. Bowring has testified that he  
2 did not consider the NJ BPU's standard when he evaluated whether the  
3 results of individual scenarios complied with the Department of  
4 Justice/Federal Energy Regulatory Commission ("DOJ/FERC") Merger  
5 Guidelines.

6 ▪ The results of the MMU Aggregate PJM Energy Market analyses do not  
7 show that the proposed merger even satisfies the more lenient DOJ/FERC  
8 merger guidelines that allow for some increase in concentration as a result  
9 of a merger.

10 **Q. Do the new analyses prepared by the MMU or Dr. Bowring's testimony in**  
11 **this proceeding lead you to change any of the conclusions presented in your**  
12 **earlier testimony in this proceeding?**

13 A. No. Neither the results of the new MMU analyses nor the testimony of Dr.  
14 Bowring has led us to change the conclusions presented in our Direct and  
15 Surrebuttal Testimony.

16 **Q. Do you have any comments on the overall analytic approach used by the**  
17 **MMU and the presentation of the results in the MMU's May and October**  
18 **2005 and February and March 2006 Reports?**

19 A. Yes. We appreciate the time and effort that Dr. Bowring and the staff of the  
20 MMU put into preparing the new analyses and into evaluating the more than 200  
21 scenarios requested by the parties to this proceeding. At the same time, however,  
22 we believe that there are critical factors that must be considered by the NJ BPU as  
23 it evaluates the PJM MMU analyses and reports. These critical factors include:

24 1. The MMU used a different standard to evaluate whether specific scenarios  
25 were compliant with or failed than that which the NJ BPU has determined

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<sup>1</sup> NJ BPU Order on Standard of Review, dated November 9, 2005, at page 25.

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1           it will use to evaluate the proposed merger. In direct contrast to the NJ  
2           BPU's Positive Benefits standard, the DOJ/FERC merger guidelines  
3           standard which the MMU applied allows for increases in market  
4           concentration as a result of the proposed merger.

5           2.     Dr. Bowring testified, and we agree, that it is extremely important that  
6           both the specific units to be divested and the specific buyers be accounted  
7           for when determining the impact of the proposed merger.<sup>2</sup> However, there  
8           is no guarantee that the specific units that are included in any of the core  
9           fossil packages analyzed by the MMU in scenarios requested by the Joint  
10          Petitioners, the Ratepayer Advocate, the NJ BPU Staff and PPL actually  
11          will be the fossil units that will be divested by the merged company. Nor  
12          is there any guarantee that the specific buyers that the Joint Petitioners, the  
13          Ratepayer Advocate, the NJ BPU Staff and PPL asked the PJM MMU to  
14          assume in their various scenarios actually will be the purchasers either of  
15          the divested fossil units or the so-called virtually divested nuclear energy.

16          3.     We believe that it is extremely useful that the MMU used actual historic  
17          PJM generation to examine the impact of the proposed merger, because it  
18          allows for the computation of hourly supplier concentration ratios for the  
19          aggregate energy market based on actual supplier data. These analyses  
20          thus reveal the degree of concentration in the actual hourly energy market  
21          and provide a highly useful complement to other forms of analysis of  
22          market power. However, the use of such actual data from 2005 means that  
23          the MMU analyses reflect past and not expected future circumstances in  
24          PJM and, for this reason, may not fully reflect the likely ability and  
25          incentive for the merged company to exercise market power in 2006 and  
26          future years.

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<sup>2</sup> Tr. 2525, line 4, to Tr. 2527, line 9.

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- 1           4.       The MMU used only three months of actual data in its Aggregate PJM  
2                   Hourly Energy Market analyses and only two hours of actual data in its  
3                   PJM East Energy Market analyses. These limited periods are not  
4                   necessarily representative of the ability and incentive for the merged  
5                   company to exercise market power during all twelve months of a calendar  
6                   year.
- 7           5.       Dr. Bowring has testified that in his Aggregate Hourly PJM Energy  
8                   Market analyses he based his conclusion as to whether a specific scenario  
9                   complied with or failed DOJ/FERC guidelines based on the “average”  
10                  hourly change in HHI from pre-merger to post-merger during the period  
11                  May 1 through July 31, 2005.<sup>3</sup> Using such “average” figures is not  
12                  consistent with FERC’s guidance and is not the way that HHI analyses are  
13                  generally performed. The use of an “average HHI change” metric masks  
14                  the fact that, in the scenarios that the MMU examined, HHI changes  
15                  (between the post-merger and pre-merger HHIs) greater than 100 were  
16                  observed in hundreds of individual hours over the course of the 2208  
17                  hours examined between May 1 and July 31, 2005. Thus, based on our  
18                  understanding of the DOJ/FERC Merger Guidelines, the scenarios  
19                  examined that were listed as being in compliance with the DOJ/FERC  
20                  Merger Guidelines generally were not in compliance, since there were  
21                  increases in HHI greater than 100 during non-transitory periods. Indeed,  
22                  as we show later in this testimony HHI increases greater than 100 occurred  
23                  in between 9% and 87% of all hours, depending on the scenario examined.
- 24           6.       The MMU made certain methodological and presentational missteps  
25                   which affected the reporting of the results of its analyses.

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<sup>3</sup> Tr. 2544, lines 22-24.

1 **Q. What standard has the NJ BPU decided that it will apply to review the**  
2 **proposed merger?**

3 A. The NJ BPU has stated that it will apply a positive benefits standard for reviewing  
4 the proposed merger.<sup>4</sup> Under that standard, the NJ BPU must find that the  
5 proposed merger will provide a positive benefit for ratepayers and the state. In  
6 addition, there must be a minimum of no adverse impact on the criteria used in the  
7 evaluation of the merger.<sup>5</sup>

8 **Q. Has the MMU applied this standard in reviewing whether the various**  
9 **scenarios proposed by the Joint Petitioners, PPL, the NJ BPU Staff, and the**  
10 **Ratepayer Advocate are “compliant?”**

11 A. No.<sup>6</sup> The MMU applied the FERC Merger Guidelines which specifically allow a  
12 proposed merger to increase the extent of concentration in the markets being  
13 examined, as long as those increases fall within prescribed limits.

14 **Q. How would applying the NJ BPU’s Positive Benefits test affect the results of**  
15 **the MMU analyses?**

16 A. All of the Aggregate PJM Hourly Energy Market scenarios analyzed by the MMU  
17 based on requests from the Joint Petitioners, the NJ BPU Staff, and the Ratepayer  
18 Advocate would not have complied with a Positive Benefits test if the MMU had  
19 applied the NJ BPU’s stated standard because all of these scenarios have  
20 minimum and average HHI changes greater than zero.

21 For example, the pre-merger to post-merger HHI changes in each of the Joint  
22 Petitioners’ requested scenarios are presented in Tables 6-3 and 6-6 on pages 28  
23 and 29 of the MMU’s February 9, 2006 Report.<sup>7</sup> A review of these two tables  
24 shows that both the “average” and the “minimum” HHI changes in each of the

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<sup>4</sup> NJ BPU Order on Standard of Review, dated November 9, 2005, at page 25.

<sup>5</sup> Ibid.

<sup>6</sup> Tr. 2542, line 18, to Tr. 2543, line 14.

<sup>7</sup> Exhibit S-563.

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1 sixteen scenarios requested by the Joint Petitioners is significantly greater than  
2 zero. Indeed, the minimum HHI change in any scenario was an increase of 66.  
3 Consequently, each of these scenarios fails the NJ BPU Positive Benefits standard  
4 for the Aggregate PJM Hourly Energy Market. The same is true for the scenarios  
5 requested by the NJ BPU Staff and the Ratepayer Advocate.

6 **Q. Can the NJ BPU rely on the FERC to review in a compliance filing the**  
7 **results of the mitigation after the merger has been closed and the divestiture**  
8 **has been completed?**

9 A. No. The NJ BPU should not rely on the FERC to adequately address the market  
10 power implications of this proposed merger on an after-the-fact basis. The  
11 FERC's standard for review is significantly different from the NJ BPU's standard  
12 and would be inadequate to protect New Jersey customers from the consequences  
13 of the merger. Moreover, the FERC's decision to approve this merger without a  
14 hearing and without any detailed review of the Joint Petitioners' market power  
15 analysis raises serious questions about how detailed a review the FERC would  
16 make of any compliance filing by the Joint Petitioners.

17 **Q. Is there any guarantee that the various fossil plants that the Joint Petitioners**  
18 **have included in their core fossil packages actually will be the plants that**  
19 **would be divested if the merger is closed?**

20 A. No. The Joint Petitioners have not committed to actually divesting these specific  
21 generating units.

22 **Q. Have the Joint Petitioners committed to actually divesting any of the**  
23 **generating units in any of the scenarios requested by any other parties, that**  
24 **is, PPL, the NJ BPU Staff or the Ratepayer Advocate?**

25 A. No.

1 **Q. Is there any guarantee that the various sets of buyers for the fossil units that**  
2 **the Joint Petitioners requested the MMU to assume in its analyses actually**  
3 **would be the purchasers of the fossil plants that would be divested if the**  
4 **merger is approved?**

5 A. No. There is no guarantee in the Joint Petitioners' proposed mitigation plan  
6 regarding the identities of the parties that would buy the divested fossil capacity  
7 or the specific units and amounts of divested capacity that each such party would  
8 purchase.

9 **Q. Is there any guarantee that the various sets of buyers for the divested nuclear**  
10 **energy that the Joint Petitioners requested the MMU to assume in its**  
11 **analyses actually would be the purchasers of the divested nuclear energy if**  
12 **the merger is approved?**

13 A. No. There is no guarantee in the Joint Petitioners' proposed mitigation plan  
14 regarding the identities of the parties that will buy the divested nuclear energy or  
15 the amounts of the divested nuclear energy that each purchaser will buy.

16 **Q. In fact, won't the identities of the buyers for the divested nuclear energy**  
17 **change over time?**

18 A. Yes. The specific buyers and the amounts of divested nuclear energy purchased  
19 by each such buyer will change over time due to the annual nuclear auctions that  
20 the Joint Petitioners have proposed as part of their mitigation plan.

21 **Q. Do you agree with Dr. Bowring that it is important to consider a wide range**  
22 **of possible buyers for the fossil capacity and nuclear energy that would be**  
23 **divested as part of the Joint Petitioners' proposed mitigation plan?<sup>8</sup>**

24 A. Yes. It is essential that a wide range of possible buyers be examined precisely  
25 because there are no guarantees concerning the identities of the buyers of the

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<sup>8</sup> Tr. 2526, line 19, to Tr. 2527, line 9.



1 fossil capacity and nuclear energy under the Joint Petitioners' proposed mitigation  
2 plan.

3 There are an extremely large number of permutations of the parties that might be  
4 buyers of the divested fossil capacity and nuclear energy and the amounts of fossil  
5 capacity and nuclear energy each potential buyer might purchase. Therefore, we  
6 believe that the proposed merger should be analyzed in a correspondingly wide  
7 range of possible scenarios.

8 **Q. Did the Joint Petitioners ask the MMU to study a wide range of possible**  
9 **purchasers for the divested fossil capacity and divested nuclear energy?**

10 A. No. The Joint Petitioners only asked the MMU to examine a rather narrow range  
11 of potential buyers. In particular, the Joint Petitioners asked the MMU to study  
12 only two possible sets of buyers for the nuclear energy that would be virtually  
13 divested as part of their mitigation plan. In one set of possible buyers, the  
14 divested nuclear energy would be purchased equally by two parties without any  
15 current market shares in PJM. In the other set, the divested nuclear energy would  
16 be purchased by eleven parties in specific amounts set by the Joint Petitioners.<sup>9</sup>  
17 The Joint Petitioners did not ask the MMU to examine any scenarios in which the  
18 amounts of nuclear energy to be divested would be purchased by a relatively  
19 small number of parties (e.g., two or three) parties that currently have substantial  
20 market shares in PJM.

21 **Q. Are there any features of the Joint Petitioners' proposed mitigation plan that**  
22 **would preclude or reduce the likelihood that the virtually divested nuclear**  
23 **energy might be purchased by such a relatively small number of parties, that**  
24 **is, two or three, that currently have substantial market shares in PJM?**

25 A. No. The possibility that the divested nuclear energy would be purchased by a  
26 small group of parties that currently have substantial market shares in PJM is not

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<sup>9</sup> Exhibit S-563, at page 27.

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1 precluded or made less likely by any features of the Joint Petitioners' proposed  
2 mitigation plan. Consequently, there is a reasonable possibility that all of the  
3 divested nuclear energy might well be purchased by two or three parties, such as  
4 AEP, Constellation, FPL Group, Dominion, Allegheny, PPL, PHI, NRG, or  
5 Reliant, that currently have substantial market shares in PJM.<sup>10</sup>

6 **Q. In response to the Joint Petitioners' request, did the MMU examine any**  
7 **scenarios in which the divested fossil capacity was sold to a relatively small**  
8 **group of companies that currently own substantial market shares in PJM?**

9 A. No. In none of the Joint Petitioner requested scenarios did the MMU assume that  
10 all of the divested fossil capacity would be purchased by a relatively small group  
11 of companies which currently have significant market shares in PJM. Instead, in  
12 each of the Joint Petitioner scenarios analyzed by the MMU it was assumed that  
13 the divested fossil units would be purchased in part by some parties that have  
14 extremely small market shares in PJM.

15 In fact, according to the information presented by Joint Petitioner witness Frame,  
16 Exelon and PSEG currently own the first and fourth largest amounts of capacity  
17 in PJM.<sup>11</sup> The other six largest current participants in PJM are AEP, Dominion,  
18 PPL, Allegheny, Edison International and Constellation. However, the MMU did  
19 not assume that any of these parties would purchase any of the fossil capacity that  
20 would be divested as part of the Joint Petitioners' mitigation plan. Instead, the  
21 largest current PJM participants that the MMU assumed would purchase any of  
22 the divested fossil capacity would be Reliant, PEPCO Holdings, Inc, and First  
23 Energy Corporation which each own only 3.9%, 2.9%, and 1.4%, respectively, of  
24 the capacity in PJM Expanded, according to the data presented in Joint Petitioner  
25 witness Frame's Exhibit RF-8.<sup>12</sup> The other purchasers for the divested fossil

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<sup>10</sup> See Exhibit RF-8 to the Testimony of Rodney Frame, Exhibit JP-6, page 2 of 2.

<sup>11</sup> Testimony of Rodney Frame, Exhibit RF-8, page 2 of 2.

<sup>12</sup> Ibid.

1 plants assumed by the MMU in its analyses were parties with even substantially  
2 smaller market shares in PJM.

3 The assumptions as to the identities of the prospective buyers have a significant  
4 affect on the results of the HHI analyses. However, we are not aware of any  
5 evidence to support the assumption that the other large current participants in PJM  
6 would not also be interested in purchasing the fossil capacity that would be  
7 divested as part of the Joint Petitioners' mitigation plan. Indeed, it might  
8 reasonably be expected that the companies that already have significant amounts  
9 of generating capacity in the market would be the ones with the greatest interest in  
10 acquiring additional capacity.

11 **Q. In what ways did the scenarios that the Ratepayer Advocate requested the**  
12 **MMU to examine modify the assumed buyers of the fossil capacity and**  
13 **nuclear energy that would be sold under the Joint Petitioners' proposed**  
14 **mitigation plan?**

15 A. The Ratepayer Advocate asked the MMU to examine the impact of selling the  
16 same fossil units and amounts of virtually divested nuclear energy as the Joint  
17 Petitioners assumed in its requested scenarios but with the change that the parties  
18 assumed to buy the divested fossil capacity and nuclear energy would currently  
19 have substantial market shares in PJM.<sup>13</sup> Such scenarios are at least as likely as  
20 those requested by the Joint Petitioners. We will explain the results of these  
21 alternate scenarios later in this testimony.

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<sup>13</sup> See Exhibit S-556 and the Attached February 9, 2006 letter from the Ratepayer Advocate to Dr. Bowring setting out requests for additional scenarios.

1 **Q. What data did the MMU use in preparing its Aggregate PJM Hourly Energy**  
2 **Market and PJM East Energy Market analyses?**

3 A. In its analyses of the Aggregate PJM Hourly Energy Market, the MMU used the  
4 actual hourly generation data for the period May 1 through July 31, 2005.<sup>14</sup>  
5 The MMU focused on two specific hours on June 17, 2005 for its analyses of the  
6 PJM East Energy Market.<sup>15</sup>

7 **Q. Do you agree with the MMU's use of actual hourly generation data for its**  
8 **HHI analyses?**

9 A. Yes. Such historical data provides important information on how generating units  
10 were actually deployed.

11 **Q. Are there any weaknesses associated with the use of such actual historical**  
12 **generation data?**

13 A. Yes. In general, we believe that it is very useful to use actual generation data.  
14 However, merger reviews appropriately are forward looking analyses, not  
15 backward looking. Consequently, historical generation data must be adjusted to  
16 reflect changes that are expected to occur as a result of the proposed merger or by  
17 the time the merger is closed or reasonably soon thereafter. Such changes could  
18 have a significant affect on the ability and incentive of the merged company to  
19 exercise market power.

20 **Q. What are some potential changes in circumstances that are not reflected in**  
21 **the actual historical generation data used by the MMU?**

22 A. Some of the potential near term changes in circumstances that could affect the  
23 ability and incentive of the merged company to exercise market power in PJM  
24 and PJM East after the merger are:

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<sup>14</sup> For example, see Tr. 2532, lines 1-8.

<sup>15</sup> Tr. 2644, lines 4-12.

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- 1           ▪       The increased generation at the Salem and Hope Creek nuclear plants that
- 2                    the Joint Petitioners have said will result from the proposed merger.
- 3           ▪       The planned increase in power at the Hope Creek nuclear plant.
- 4           ▪       The proposed merger between the FPL Group and Constellation, both of
- 5                    which currently have market shares in PJM.
- 6           ▪       The planned Neptune transmission line from New Jersey to Long Island,
- 7                    New York.
- 8           ▪       Plant or capacity purchases by the merged company.
- 9           ▪       Plant retirements.
- 10          ▪       Load growth.
- 11          ▪       Further natural gas price increases.

12           The actual generation data used by the MMU reflects none of these potential  
13           changes. Instead, the MMU analyses implicitly assume that the generating units  
14           would be deployed exactly as they were during the historical period.<sup>16</sup>

15   **Q.    The Joint Petitioners have committed that they will seek MMU permission**  
16   **before they sell capacity outside PJM.<sup>17</sup> Does that eliminate any concern**  
17   **about the potential impact of the planned Neptune transmission line from**  
18   **New Jersey to Long Island, New York?**

19   A.    No. The concern is not only that Exelon Electric and Gas (“EEG”), the combined  
20           company that would be created by the proposed merger, would seek to sell power  
21           outside PJM but that another party would. As Dr. Bowring explained, delisting  
22           capacity from PJM is not a difficult process.<sup>18</sup> Any party other than EEG also  
23           could seek to delist generating capacity from PJM and sell that power into the

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<sup>16</sup> Tr. 2667, lines 11-15.

<sup>17</sup> Tr. 2760, line 18 to Tr. 2761, line 1.

<sup>18</sup> Tr. 2761, lines 5-14.

1 more lucrative New York market. Such a loss of 700-800 MW of capacity from  
2 PJM East through the Neptune transmission line would greatly enhance the ability  
3 and incentive of EEG to exercise market power through the capacity it would  
4 continue to own in PJM East and PJM.

5 **Q. Do you agree with Dr. Bowring that the three months of actual generation**  
6 **data that he analyzed for his studies of the Aggregate Hourly PJM Energy**  
7 **Market may not be predictive of what may occur over an entire year?**<sup>19</sup>

8 A. Yes.

9 **Q. Does FERC consider it necessary for market power analyses to examine time**  
10 **periods that are likely to be reflective of conditions throughout the year?**

11 A. Yes. In Order 642, FERC required that applicants identify and separately analyze  
12 products differentiated by load level.

13 Because demand and supply conditions for a product can vary  
14 substantially over the year, periods corresponding to those distinct  
15 conditions must be identified by load level, and analyzed as  
16 separate products.<sup>20</sup>

17 FERC recently reaffirmed the necessity of performing Delivered Price Tests over  
18 a range of seasons and load conditions.<sup>21</sup>

19 **Q. Does the market power witness for the Joint Petitioners in this proceeding**  
20 **agree that it is necessary to analyze the proposed merger over a variety of**  
21 **demand and supply conditions?**

22 A. Yes. Joint Petitioners' witness Frame noted in his testimony in this proceeding  
23 that different seasons and load periods must be examined in a market power  
24 analysis "to reflect a variety of demand and supply conditions."<sup>22</sup>

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<sup>19</sup> Tr. 2641, lines 10-13.

<sup>20</sup> FERC Order 642, Nov 15 2000, 93 FERC 61,164, at page 145.

<sup>21</sup> FERC Order in docket ER96-2495-016 and others, April 14, 2004, 107 FERC ¶ 61,018 at page 44.

1 **Q. Do you consider the fact that the MMU analyses are based on only three**  
2 **months of actual generation data to be a significant factor that the NJ BPU**  
3 **should consider when it is evaluating the significance of the results of those**  
4 **analyses?**

5 A. Yes. It is extremely important that the ability and incentive for the merged  
6 company to exercise market power be examined over a full range of system, load  
7 and generating unit outage conditions. We appreciate that the MMU used the  
8 actual generation data that was available when it began its analyses. However,  
9 using only three months of data that is not predictive of what may occur over an  
10 entire year is a significant limitation of the MMU analyses.

11 **Q. On what basis did the MMU decide that the various scenarios it examined**  
12 **passed or failed the DOJ/FERC merger guideline standard it applied?**

13 A. The MMU decided whether a scenario was compliant with or failed the  
14 DOJ/FERC merger guidelines based on the average pre-merger to post-merger  
15 HHI change over all of the hours in the periods being studied, i.e., May 1 through  
16 July 31, 2005 in the Aggregate Hourly PJM Energy Market analyses and the two  
17 hour period examined in the PJM East Energy Market analyses.<sup>23</sup>

18 **Q. Do you agree that this is the appropriate way to evaluate whether a scenario**  
19 **is compliant with or fails the relevant standards being applied?**

20 A. No. As we noted earlier, it is important to evaluate whether the proposed merger  
21 is compliant with the relevant standards over a wide range of load, system and  
22 generating unit outage conditions.<sup>24</sup> Therefore, it is essential to evaluate the pre-  
23 merger to post-merger HHI changes over each of the hours examined by the  
24 MMU. Merely looking at the single average change over the entire period

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<sup>22</sup> Testimony of Rodney Frame, Exhibit JP-6, at page 22.

<sup>23</sup> Tr. 2544, lines 22-24.

<sup>24</sup> For example, see FERC Order 642, Nov 15 2000, 93 FERC 61,164, at page 145.

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1           undercuts the rationale for looking at the effect of the merger during individual  
2           hours.

3           Looking at the effect of the merger on HHI concentration measures during  
4           specific hours of the year is consistent with the way in which HHI analyses are  
5           generally prepared and reviewed. Indeed, Joint Petitioners' witness Frame  
6           presents the results of his HHI analyses by individual hour.<sup>25</sup> He did not merely  
7           present or base his conclusions on one average HHI change for the entire year, or  
8           on one average HHI change over a particular 3-month period (such as May  
9           through July).

10       **Q.    Have you corrected the results presented in the MMU's February 9,**  
11       **February 17 and March 1, 2006 Reports for any methodological or**  
12       **presentational mistakes that have been identified in the MMU analyses?**

13       A.    Yes. First, PPL's consultants discovered that there was some inconsistency  
14       between PJM participant names in the initial set of generation and import files  
15       provided by the MMU. As a result, the imports were incorrectly assigned to new  
16       participants in PJM when, in actuality, they should have been assigned to existing  
17       participants. The MMU corrected for this mistake in its later Reports and we  
18       corrected for it in our analyses of the scenarios requested by the Joint Petitioners.

19       We also corrected for a mistake in the way in which the MMU calculated the pre-  
20       merger to post-merger HHI changes. It is clear from the tables in the February 9,  
21       February 17, and March 1, 2006 Reports that the MMU calculated the minimum  
22       HHI change for any specific scenario by subtracting the minimum pre-merger  
23       HHI in any of the individual hours examined from the minimum post-merger HHI  
24       in any of the individual hours examined. However, the hour in which the  
25       minimum pre-merger HHI occurred was not necessarily the same hour in which  
26       the minimum post-merger HHI occurred. Given that there were 2,208 hours in the

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<sup>25</sup> For example, see Exhibits RF-6 and RF-7 to the Testimony of Rodney Frame, Exhibit JP-6.



**Fagan-Schlissel Supplemental Testimony on PJM MMU Analyses**  
**BPU Docket No. EM05020106**  
**OAL Docket No. PUC-1874-05**

1 period May 1 through July 31, 2005 examined by the MMU, it probably is  
2 reasonable to expect that the minimum pre-merger and post-merger HHIs did not  
3 occur in the same individual hour.

4 For example, the minimum pre-merger HHI calculated by the MMU for the  
5 Aggregate Hourly PJM Energy Market was 855.<sup>26</sup> The minimum post-merger  
6 HHI for what the MMU designated as RPA 2 Participant Scenario 1A was 979.<sup>27</sup>  
7 Consequently, the minimum pre-merger to post-merger HHI change for this  
8 scenario was calculated by the MMU as 124 or the difference between 979 and  
9 855.<sup>28</sup> However, this ignores the fact that the minimum pre-merger and post-  
10 merger HHIs may not have occurred in the same hour.

11 In the tables in this testimony, we have compared the post-merger HHI for each  
12 scenario for each individual hour with the pre-merger HHI for the same hour. In  
13 this way, we have determined the minimum, average and maximum HHI changes  
14 for each scenario using the MMU's actual generation and import data for the  
15 period from May 1 through July 31, 2006.

16 **Q. Just to be clear, all of the HHI numbers in Tables S-1 through S-6 of this**  
17 **testimony are based on the actual PJM data provided by the MMU?**

18 A. Yes. The differences between the numbers in our Tables S-1 through S-6 and the  
19 respective tables in the MMU Reports reflect the correction of the MMU's minor  
20 inconsistencies in the naming of certain PJM participants, noted above, and our  
21 examination of the changes from the pre-merger to post-merger HHIs in each  
22 individual hour.

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<sup>26</sup> See, for example, Table 5-1, on page 11 of Exhibit S-564, the February 17, 2006 Report.

<sup>27</sup> See, for example, Table 5-2, on page 11 of Exhibit S-564, the February 17, 2006 Report.

<sup>28</sup> See, for example, Table 5-3, on page 11 of Exhibit S-564, the February 17, 2006 Report.

**Fagan-Schlissel Supplemental Testimony on PJM MMU Analyses**  
**BPU Docket No. EM05020106**  
**OAL Docket No. PUC-1874-05**

1 **Q. Do the scenarios that the MMU ran at the request of the Joint Petitioners**  
2 **comply with the Positive Benefits standard that the NJ BPU has said it will**  
3 **apply to review the proposed merger?**

4 A. No. As shown on Table S-1 below, each of the Joint Petitioners’ requested  
5 scenarios fails the NJ BPU’s Positive Benefits standard because they show net  
6 increases greater than zero in the pre-merger to post-merger HHIs in 100 percent  
7 of the hours.

8 **Table S-1: Results of MMU Analyses of the Joint Petitioner Requested Scenarios**  
9 **with Virtual Divestiture**

Scenario	Minimum Hour HHI Increase	Average Hourly HHI Increase	Maximum Hour HHI Increase	Number of Hours with HHI Increase Greater Than 100	Percentage of Hours with HHI Increase Greater Than 100	Number of Hours with HHI Increase Greater Than 0	Percentage of Hours with HHI Increase Greater Than 0
Petitioners Fossil 1a - Nuclear to 2 New Entrants	21	74	151	258	12%	2208	100%
Petitioners Fossil 1b - Nuclear to 2 New Entrants	20	72	151	232	11%	2208	100%
Petitioners Fossil 1c - Nuclear to 2 New Entrants	14	69	148	206	9%	2208	100%
Petitioners Fossil 1d - Nuclear to 2 New Entrants	18	73	151	245	11%	2208	100%
Petitioners Fossil 2a - Nuclear to 2 New Entrants	25	82	165	477	22%	2208	100%
Petitioners Fossil 2b - Nuclear to 2 New Entrants	25	81	165	459	21%	2208	100%
Petitioners Fossil 2c - Nuclear to 2 New Entrants	25	81	165	457	21%	2208	100%
Petitioners Fossil 2d - Nuclear to 2 New Entrants	25	81	165	444	20%	2208	100%
Petitioners Fossil 1a - Nuclear to Multiple Buyers	29	88	180	616	28%	2208	100%
Petitioners Fossil 1b - Nuclear to Multiple Buyers	29	87	180	583	26%	2208	100%
Petitioners Fossil 1c - Nuclear to Multiple Buyers	21	83	176	506	23%	2208	100%
Petitioners Fossil 1d - Nuclear to Multiple Buyers	25	87	179	581	26%	2208	100%
Petitioners Fossil 2a - Nuclear to Multiple Buyers	32	96	193	927	42%	2208	100%
Petitioners Fossil 2b - Nuclear to Multiple Buyers	32	95	193	916	41%	2208	100%
Petitioners Fossil 2c - Nuclear to Multiple Buyers	31	95	193	911	41%	2208	100%
Petitioners Fossil 2d - Nuclear to Multiple Buyers	31	94	193	894	40%	2208	100%

10  
11 **Q. Do the scenarios that the MMU ran at the request of the Joint Petitioners**  
12 **comply with the DOJ/FERC Merger Guidelines?**

13 A. No. As can be seen from Table S-1 above, each of the Joint Petitioners requested  
14 scenarios fails the DOJ/FERC Merger Guidelines in a significant number of  
15 hours.

16 **Q. Do the Joint Petitioners’ requested scenarios presented in Table S-1 reflect**  
17 **the virtual divestiture of nuclear energy?**

18 A. Yes.

1 **Q. What would be the pre-merger to post-merger HHI changes in the Joint**  
2 **Petitioners' scenarios without the virtual divestiture?**

3 A. As can be seen from a comparison of the HHI changes presented in Table 1-3 on  
4 page 4 of the February 9, 2006 MMU Report, Exhibit S-563, and Tables 6-3 and  
5 6-6, on pages 28 and 29 of that same Report, the pre-merger to post-merger HHI  
6 changes in the Joint Petitioners' scenarios would be significantly higher without  
7 the virtual divestiture.

8 **Q. Please describe the different scenarios that the Ratepayer Advocate asked the**  
9 **MMU to analyze.**

10 A. The Ratepayer Advocate asked the MMU to examine the divestiture of the same  
11 two core fossil plant packages and amounts of virtually divested nuclear energy  
12 that the Joint Petitioners had requested.<sup>29</sup> However, we asked the MMU to vary  
13 the potential identities of the assumed buyers of this divested fossil capacity and  
14 nuclear energy in order to test whether the proposed merger would comply with  
15 either the NJ BPU Positive Benefits standard or the DOJ/FERC Merger  
16 Guidelines under a much wider set of assumptions about possible buyers than the  
17 Joint Petitioners had requested.

18 In particular the Ratepayer asked the MMU to examine four sets of scenarios:

19 Ratepayer Advocate Set One had the same buyers of the fossil capacity as the  
20 Joint Petitioners had asked the MMU to assume, but all of the virtually divested  
21 nuclear energy was assumed to be purchased by two parties that currently have  
22 significant market shares in PJM.

23 Ratepayer Advocate Set Two also had the same buyers of the fossil capacity as  
24 the Joint Petitioners had asked the MMU to assume, but all of the virtually

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<sup>29</sup> See page 10 of the February 17, 2006 MMU Report, Exhibit S-564.

1           divested nuclear energy was assumed to be purchased by three parties that  
2           currently have significant market shares in PJM.

3           Ratepayer Advocate Set Three asked the MMU to assume that all of the divested  
4           fossil capacity was purchased by parties that currently have significant market  
5           shares in PJM and that all of the virtually divested nuclear energy was assumed to  
6           be purchased by two parties that currently have significant market shares in PJM.

7           Ratepayer Advocate Set Four asked the MMU to assume that all of the divested  
8           fossil capacity was purchased by parties that currently have significant market  
9           shares in PJM and that all of the virtually divested nuclear energy was assumed to  
10          be purchased by three parties that currently have significant market shares in  
11          PJM.

12       **Q.    Ratepayer Advocate Sets One through Four reflect the Joint Petitioners’**  
13       **proposed virtual divestiture of nuclear energy. Doe this mean that you agree**  
14       **that virtual divestiture would be an effective mitigation remedy for the**  
15       **proposed merger?**

16       A.    No.  As we discussed in our previous testimony in this proceeding, we believe  
17       that the proposed virtual divestiture of nuclear energy is an inadequate mitigation  
18       remedy due to several critical weaknesses:

- 19           ▪     Under the proposed virtual divestiture, EEG still would maintain control  
20           over operations of the units that would generate the divested energy.
- 21           ▪     Under the proposed virtual divestiture, EEG would have an incentive to  
22           exercise market power as that would indirectly increase the prices in the  
23           yearly nuclear auctions.

1           ▪       As proposed, the virtual divestiture is not symmetric because there would  
2                    be no provision for increasing the amount of nuclear energy to be  
3                    divested if EEG constructs or acquires additional capacity.<sup>30</sup>

4           However, to be conservative, the Ratepayer Advocate asked the MMU to reflect  
5           the proposed virtual divestiture of nuclear energy in a number of scenarios.

6   **Q.    Would the pre-merger to post-merger HHI changes for Ratepayer Advocate**  
7   **Sets One through Four be higher if the virtual divestiture of nuclear energy**  
8   **were not considered?**

9   A.    Yes. The pre-merger to post-merger HHI changes would be significantly higher in  
10       all scenarios if the virtual divestiture were not considered.

11 **Q.    Would the proposed merger satisfy the NJ BPU standard and the**  
12 **DOJ/FERC Merger Guidelines under the buyer assumptions specified in**  
13 **Ratepayer Advocate Set One?**

14 A.    No. As shown in Table S-2 below, all of the scenarios in Ratepayer Advocate Set  
15       One fail the NJ BPU's Positive Benefits standard in 100 percent of the hours. All  
16       of these scenarios also fail the DOJ/FERC Merger Guidelines in at least 51  
17       percent of the individual hours. These scenarios even fail the DOJ/FERC Merger  
18       Guidelines if one only considers the average pre-merger to post-merger HHI  
19       changes.

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<sup>30</sup> Biewald-Fagan-Schlissel Direct Testimony, Exhibit RA-5 Redacted and Exhibit RA-6 Confidential, at page 68, line 19, to page 74, line 7.

**Fagan-Schlissel Supplemental Testimony on PJM MMU Analyses**  
**BPU Docket No. EM05020106**  
**OAL Docket No. PUC-1874-05**

1 **Table S-2: Results of MMU Analyses of Ratepayer Advocate Set One – Joint**  
 2 **Petitioner Assumed Purchasers of Fossil Capacity and Two Parties with Significant**  
 3 **PJM Market Shares Buy Virtually Divested Nuclear Energy**

Scenario	Minimum	Average	Maximum	Number of	Percentage of	Number of	Percentage of
	Hour HHI Increase	Hourly HHI Increase	Hour HHI Increase	Hours with HHI Increase Greater Than 100	Hours with HHI Increase Greater Than 100	Hours with HHI Increase Greater Than 0	Hours with HHI Increase Greater Than 0
Petitioners Fossil 1a - Nuclear to 2 Large Current Parties in PJM	48	105	180	1266	57%	2208	100%
Petitioners Fossil 1b - Nuclear to 2 Large Current Parties in PJM	48	103	180	1186	54%	2208	100%
Petitioners Fossil 1c - Nuclear to 2 Large Current Parties in PJM	43	102	178	1119	51%	2208	100%
Petitioners Fossil 1d - Nuclear to 2 Large Current Parties in PJM	47	106	181	1303	59%	2208	100%
Petitioners Fossil 2a - Nuclear to 2 Large Current Parties in PJM	53	113	194	1473	67%	2208	100%
Petitioners Fossil 2b - Nuclear to 2 Large Current Parties in PJM	53	112	194	1443	65%	2208	100%
Petitioners Fossil 2c - Nuclear to 2 Large Current Parties in PJM	54	114	194	1530	69%	2208	100%
Petitioners Fossil 2d - Nuclear to 2 Large Current Parties in PJM	54	113	194	1505	68%	2208	100%

4  
 5 **Q. Would the proposed merger satisfy the NJ BPU standard and the**  
 6 **DOJ/FERC merger guidelines under the buyer assumptions specified in**  
 7 **Ratepayer Advocate Set Two?**

8 **A.** No. As shown in Table S-3 below, all of the scenarios in Ratepayer Advocate Set  
 9 Two fail the NJ BPU’s Positive Benefits Impact standard in 100 percent of the  
 10 hours. All of these scenarios also fail the DOJ/FERC Merger Guidelines in at least  
 11 31 percent of the individual hours. Four of these scenarios (that is, 2a, 2b, 2c, and  
 12 2d) even fail the DOJ/FERC Merger Guidelines if one only considers the Average  
 13 pre-merger to post-merger HHI changes.

14 **Table S-3: Results of MMU Analyses of Ratepayer Advocate Set Two – Joint**  
 15 **Petitioner Assumed Purchasers of Fossil Capacity and Three Parties with**  
 16 **Significant PJM Market Shares Buy Virtually Divested Nuclear Energy**

Scenario	Minimum	Average	Maximum	Number of	Percentage of	Number of	Percentage of
	Hour HHI Increase	Hourly HHI Increase	Hour HHI Increase	Hours with HHI Increase Greater Than 100	Hours with HHI Increase Greater Than 100	Hours with HHI Increase Greater Than 0	Hours with HHI Increase Greater Than 0
Petitioners Fossil 1a - Nuclear to 3 Large Current Parties in PJM	40	94	169	798	36%	2208	100%
Petitioners Fossil 1b - Nuclear to 3 Large Current Parties in PJM	40	93	169	733	33%	2208	100%
Petitioners Fossil 1c - Nuclear to 3 Large Current Parties in PJM	34	91	167	676	31%	2208	100%
Petitioners Fossil 1d - Nuclear to 3 Large Current Parties in PJM	38	95	169	798	36%	2208	100%
Petitioners Fossil 2a - Nuclear to 3 Large Current Parties in PJM	44	102	183	1111	50%	2208	100%
Petitioners Fossil 2b - Nuclear to 3 Large Current Parties in PJM	44	101	183	1085	49%	2208	100%
Petitioners Fossil 2c - Nuclear to 3 Large Current Parties in PJM	45	103	183	1136	51%	2208	100%
Petitioners Fossil 2d - Nuclear to 3 Large Current Parties in PJM	45	102	183	1106	50%	2208	100%

1 **Q. Would the proposed merger satisfy the NJ BPU standard and the**  
2 **DOJ/FERC merger guidelines under the buyer assumptions specified in**  
3 **Ratepayer Advocate Set Three?**

4 A. No. As shown in Table S-4 below, all of the scenarios in Ratepayer Advocate Set  
5 Three fail the NJ BPU’s Positive Benefits standard in 100 percent of the hours.  
6 All of these scenarios also fail the DOJ/FERC Merger Guidelines in at least 64  
7 percent of the individual hours. These scenarios even fail the DOJ/FERC Merger  
8 Guidelines if one only considers the average pre-merger to post-merger HHI  
9 changes.

10 **Table S-4: Results of MMU Analyses of Ratepayer Advocate Set Three – Parties**  
11 **with Significant PJM Market Shares Joint Petitioner Purchase Divested Fossil**  
12 **Capacity and Two Parties with Significant PJM Market Shares Buy Virtually**  
13 **Divested Nuclear Energy**

Scenario	Minimum	Average	Maximum	Number of	Percentage of	Number of	Percentage of
	Hour HHI	Hourly HHI	Hour HHI	Hours with	HHI Increase	Hours with	HHI Increase
	Increase	Increase	Increase	Greater Than	Greater Than	Greater Than	Greater Than
				100	100	0	0
Modified Petitioners Fossil 1a - Nuclear to 2 Large Current Parties in PJM	50	109	184	1439	65%	2208	100%
Modified Petitioners Fossil 1b - Nuclear to 2 Large Current Parties in PJM	50	108	184	1409	64%	2208	100%
Modified Petitioners Fossil 1c - Nuclear to 2 Large Current Parties in PJM	61	113	189	1740	79%	2208	100%
Modified Petitioners Fossil 1d - Nuclear to 2 Large Current Parties in PJM	61	115	189	1771	80%	2208	100%
Modified Petitioners Fossil 2a - Nuclear to 2 Large Current Parties in PJM	57	117	197	1691	77%	2208	100%
Modified Petitioners Fossil 2b - Nuclear to 2 Large Current Parties in PJM	57	117	197	1672	76%	2208	100%
Modified Petitioners Fossil 2c - Nuclear to 2 Large Current Parties in PJM	67	123	202	1932	88%	2208	100%
Modified Petitioners Fossil 2d - Nuclear to 2 Large Current Parties in PJM	67	122	202	1914	87%	2208	100%

14  
15 **Q. Would the proposed merger satisfy the NJ BPU standard and the**  
16 **DOJ/FERC merger guidelines under the buyer assumptions specified in**  
17 **Ratepayer Advocate Set Four?**

18 A. No. As shown in Table S-5 below, all of the scenarios in Ratepayer Advocate Set  
19 Three fail the NJ BPU’s Positive Benefits standard in 100 percent of the hours.  
20 All of these scenarios also fail the DOJ/FERC Merger Guidelines in at least 39  
21 percent of the individual hours. All but two of these scenarios even fail the  
22 DOJ/FERC Merger Guidelines if one only considers the average pre-merger to  
23 post-merger HHI changes.

1 **Table S-5: Results of MMU Analyses of Ratepayer Advocate Set Three – Parties**  
2 **with Significant PJM Market Shares Joint Petitioner Purchase Divested Fossil**  
3 **Capacity and Three Parties with Significant PJM Market Shares Buy Virtually**  
4 **Divested Nuclear Energy**

Scenario	Minimum	Average	Maximum	Number of	Percentage of	Number of	Percentage of
	Hour HHI	Hourly HHI	Hour HHI	Hours with	Hours with	Hours with	Hours with
	Increase	Increase	Increase	Greater Than	Greater Than	Greater Than	Greater Than
				100	100	0	0
Modified Petitioners Fossil 1a - Nuclear to 3 Large Current Parties in PJM	41	97	172	901	41%	2208	100%
Modified Petitioners Fossil 1b - Nuclear to 3 Large Current Parties in PJM	41	96	172	854	39%	2208	100%
Modified Petitioners Fossil 1c - Nuclear to 3 Large Current Parties in PJM	52	101	177	1131	51%	2208	100%
Modified Petitioners Fossil 1d - Nuclear to 3 Large Current Parties in PJM	52	103	177	1226	56%	2208	100%
Modified Petitioners Fossil 2a - Nuclear to 3 Large Current Parties in PJM	48	105	185	1270	58%	2208	100%
Modified Petitioners Fossil 2b - Nuclear to 3 Large Current Parties in PJM	48	105	185	1249	57%	2208	100%
Modified Petitioners Fossil 2c - Nuclear to 3 Large Current Parties in PJM	58	111	190	1574	71%	2208	100%
Modified Petitioners Fossil 2d - Nuclear to 3 Large Current Parties in PJM	58	111	190	1529	69%	2208	100%

5  
6 **Q. Would the pre-merger to post-merger HHI changes in the scenarios in**  
7 **Ratepayer Advocate Sets Numbers One through Four satisfy the NJ BPU**  
8 **standard and the DOJ/FERC Merger Guidelines if it was assumed that the**  
9 **virtual nuclear energy divestiture was not effective?**

10 A. No. All of the scenarios would fail both the NJ BPU standard and the DOJ/FERC  
11 Merger Guidelines.

12 **Q. Would the proposed merger satisfy the NJ BPU standard and the**  
13 **DOJ/FERC merger guidelines using the buyer assumptions specified by the**  
14 **NJ BPU Staff in which the divested nuclear energy is assumed to be**  
15 **purchased by four buyers?**

16 A. No. As shown in Table S-6 below, all of the scenarios in Ratepayer Advocate Set  
17 Three fail the NJ BPU’s Positive Benefits standard in 100 percent of the hours.  
18 All of these scenarios also fail the DOJ/FERC Merger Guidelines in at least 26  
19 percent of the individual hours. Three of these scenarios even fail the DOJ/FERC  
20 Merger Guidelines if one only considers the average pre-merger to post-merger  
21 HHI changes. Scenario 2d barely passes the DOJ/FERC Merger Guidelines screen  
22 considering only the average pre-to-post HHI change, with an average HHI  
23 change of 99.



1 **Table S-6: Results of MMU Analyses of NJ BPU Staff Requested Scenarios**

Scenario	Minimum Hour HHI Increase	Average Hourly HHI Increase	Maximum Hour HHI Increase	Number of Hours with HHI Increase Greater Than 100	Percentage of Hours with HHI Increase Greater Than 100	Number of Hours with HHI Increase Greater Than 0	Percentage of Hours with HHI Increase Greater Than 0
Petitioners Fossil 1a - Nuclear to Next 4 Largest Parties in PJM	39	93	168	752	34%	2208	100%
Petitioners Fossil 1b - Nuclear to Next 4 Largest Parties in PJM	39	92	168	689	31%	2208	100%
Petitioners Fossil 1c - Nuclear to Next 4 Largest Parties in PJM	31	88	164	565	26%	2208	100%
Petitioners Fossil 1d - Nuclear to Next 4 Largest Parties in PJM	37	92	168	694	31%	2208	100%
Petitioners Fossil 2a - Nuclear to Next 4 Largest Parties in PJM	43	101	181	1050	48%	2208	100%
Petitioners Fossil 2b - Nuclear to Next 4 Largest Parties in PJM	43	100	181	1036	47%	2208	100%
Petitioners Fossil 2c - Nuclear to Next 4 Largest Parties in PJM	42	100	181	1055	48%	2208	100%
Petitioners Fossil 2d - Nuclear to Next 4 Largest Parties in PJM	42	99	181	1030	47%	2208	100%

2  
3 **Q. Is it sufficient that the proposed merger might pass the NJ BPU standard or**  
4 **the DOJ/FERC Merger Guidelines for only one or two sets of scenarios?**

5 A. No. It is important that the proposed merger pass the NJ BPU standard for a wide  
6 range of assumptions about possible buyers because we don't know the identities  
7 of the actual purchasers of the divested fossil capacity and virtually divested  
8 nuclear energy under the Joint Petitioners' mitigation plan. Moreover, as we  
9 discussed earlier, the identities of the purchasers of the virtually divested nuclear  
10 energy will change over time. For these same reasons, even if one focuses on the  
11 results of the DOJ/FERC Merger Guidelines, it is equally essential that the  
12 proposed merger pass the Guidelines for a wide range of assumptions about  
13 possible buyers.

14 Moreover, the evidence in this docket includes various other types of market  
15 power analyses, which each focus on a somewhat different aspect of market  
16 concentration or market power. These include the delivered price test analyses  
17 presented by Mr. Frame and the variations on those delivered price test analyses  
18 presented in our previous testimony in this docket, the strategic bidding analysis  
19 that we presented in our November 14, 2005 Testimony in this docket, and the  
20 MAPS model analysis presented by BPU staff witness Lesser. The proposed  
21 merger and mitigation should be required to satisfy the NJ BPU's Positive  
22 Benefits standard in all of these analyses.

23 **Q. Does this complete your testimony?**

24 A. Yes.

# **EXHIBIT FS-S1**

February 9, 2006

**Via Electronic and Regular Mail**

Matthew T. Morais, Esq.  
PJM Interconnection, LLC  
955 Jefferson Avenue  
Valley Forge Corporate Center  
Norristown, PA 19403-2497

**RE: I/M/O the Joint Petition of Public Service Electric and Gas Company  
And Exelon Corporation for Approval of a Change in Control of  
Public Service and Gas Company and Related Authorizations  
BPU Docket No.: EM05020106  
OAL Docket No. PUC-1874-05**

Dear Mr. Morais:

This is in further reference to the additional MMU analyses initiated by the Joint Petitioners' e-mail of January 25, 2006. Pursuant to the timetable agreed-upon by the parties, as set forth in Petitioners' counsel Matthew W. Weissman's letter dated February 6, 2006, attached please find the Division of the Ratepayer Advocate's ("Ratepayer Advocate") supplemental request for additional analyses (Ratepayer Advocate Request D) by the PJM MMU.

Very truly yours,

SEEMA M. SINGH, ESQ.  
RATEPAYER ADVOCATE

By: \_\_\_\_\_  
Henry M. Ogden, Esq.  
Asst. Deputy Ratepayer Advocate

HMO/lg

Attach.

cc: Service List (via regular mail)

## RATEPAYER ADVOCATE REQUEST Supplemental Request D

1. Please run the “Different Purchasers of Fossil Units” sensitivity analyses requested by the Joint Petitioners on February 7, 2006 (*with any clarifications made by the PJM MMU in response to the Joint Petitioners’ letter*) but with the assumption that there is no virtual divestiture of energy.
2. Please run the “Increased Virtual Divestiture” sensitivity analyses requested by the Joint Petitioners on February 7, 2006 (with any clarifications made by the PJM MMU in response to the Joint Petitioners’ letter) and revised as follows:
  - a. Use the revised purchasers of the divested fossil capacity assumed in the RPA Exelon “Modified Petitioners Scenarios” that were examined previously by the PJM MMU in Tables 4-2 and 4-3 of the February 2, 2006 PJM MMU Report.
  - b. Assume that the energy being virtually divested in every hour would be purchased by buyers who are the next two largest current participants in PJM East (other than Exelon and PSEG).
  - c. Assume that the energy being virtually divested would be purchased by buyers who are the next three largest current participants in PJM East (other than Exelon and PSEG).
3. Please run the following analyses that were requested by the RPA on February 7, 2006 (*with any clarifications that are made by the PJM MMU*) in response to the Joint Petitioners’ letter of February 7, 2006:
  - a. For the PJM Aggregate Hourly Energy Market: Please run the “Modified Petitioners Scenarios” (“RPA Exelon”) examined in Tables 4-2 and 4-3 of the February 2, 2006 PJM MMU report (p. 16) with the assumption that the energy being virtually divested would be purchased by buyers who are the next two largest current participants in PJM East (other than Exelon and PSEG).
  - b. For the PJM Aggregate Hourly Energy Market: Please run the “Modified Petitioners Scenarios” (“RPA Exelon”) examined in Tables 4-2 and 4-3 of the February 2, 2006 PJM MMU report (p. 16) with the assumption that the energy being virtually divested would be purchased by buyers who are the next three largest current participants in PJM East (other than Exelon and PSEG).
  - c. For the PJM Aggregate Hourly Energy Market: Please run the Petitioners’ scenarios examined in Tables 6-2 through 6-6 of the February 2, 2006 PJM MMU report (pp. 28-29) with the assumption that the energy being virtually divested would be purchased by buyers who are the next two largest current participants in PJM East (other than Exelon and PSEG).

- d. For the PJM Aggregate Hourly Energy Market: Please run the Petitioners' scenarios examined in Tables 6-2 through 6-6 of the February 2, 2006 PJM MMU report (pp. 28-29) with the assumption that the energy being virtually divested would be purchased by buyers who are the next three largest current participants in PJM East (other than Exelon and PSEG).
4. In response to the Joint Petitioners' letter of February 7, 2006 request for increased virtual divestiture sensitivity analysis, please run the following analyses including any clarifications that are made by the PJM MMU and the following modifications:
    - a. For the PJM Aggregate Hourly Energy Market: Please run the "Modified Petitioners Scenarios" ("RPA Exelon") examined in Tables 4-2 and 4-3 of the February 2, 2006 PJM MMU report (p. 16) with the assumption that there is no virtual divestiture of energy.
    - b. For the PJM Aggregate Hourly Energy Market: Please run the Petitioners' scenarios examined in Tables 6-2 through 6-6 of the February 2, 2006 PJM MMU report (pp. 28-29) with the assumption that there is no virtual divestiture of energy.

## **WORKPAPER REQUEST**

Please provide the following workpapers, in electronic machine readable format, with the relevant programs, scripts, procedures, and/or routines, both source code and executable, for each of the analyses listed above and the analyses requested by the Joint Petitioners on February 7, 2006:

1. The workpapers showing each step in the calculation of each of the HHIs that were calculated in the PJM Aggregate Hourly Energy, Local Energy Market defined by the Eastern Interface, PJM Capacity, and Regulation analyses.
2. The market shares and MW owned by each market participant for each hour analyzed in each pre-merger and post-merger scenario.
3. The specific units owned by each market participant for each hour analyzed in each post-merger scenario.
4. By hour, the market shares and MW of the imports into PJM attributed to each market participant.
5. In each post-merger scenario in the PJM Aggregate Hourly Energy Market analyses, the step that shows the removal of the virtually divested nuclear energy and/or capacity from EEG, Exelon or PSEG to the assumed purchaser.
6. In the PJM Aggregate Hourly Energy Market analyses, all workpapers showing the treatment of imports or net imports into PJM.