Market Monitoring Unit

Exelon/PSEG Merger Sensitivity Analyses

PJM Market Monitoring Unit

April 21, 2006

Summary

In this report, the PJM Market Monitoring Unit ("MMU") presents the results of sensitivity analyses performed in response to a transcript request made by the Staff of the New Jersey Board of Public Utilities. This transcript request was made on March 24, 2006 during hearings in the matter of the proposed merger between PSEG and Exelon that is currently before the New Jersey Board of Public Utilities ("NJBPU") in OAL Docket No. PUC 1874-05. In the MMU's April 19 Report, the MMU provided an update to Staff Exhibit S-585, Supplemental Tables prepared by the MMU and provided at the hearing of March 24, 2006. The Supplemental Tables in Staff Exhibit S-585 were expanded versions of Tables 5-1 through 5-12 in the MMU's February 17 Report. The April 19 Report presented the results for the same scenarios, but included data for the period from May 1, 2005 through March 31, 2006, plus an additional table including on peak and off peak information for each scenario. In this report ("April 21 Report") the MMU provides an update to Staff Exhibit S-584, Supplemental Tables prepared by the MMU and provided at the hearing of March 24, 2006. The Supplemental Tables in Staff Exhibit S-584 are expanded versions of Tables 1-1 through 1-3 and Tables 6-1 through 6-6 in the MMU's February 9 Report. This report presents the results for the same scenarios, but includes data for the period from May 1, 2005 through March 31, 2006, plus an additional table including on peak and off peak information for each scenario.

The MMU analyzed the effects of the proposed divestiture scenarios on the structure of the aggregate PJM Energy Market, consistent with the request. For each divestiture scenario, pre- and post-merger market structure was defined by the HHI and the merger impact was measured as the resultant average hourly difference in HHI, and in addition the number and percent of total hours, on peak hours and off peak hours in which the hourly change in HHI exceeded the Department of Justice Guidelines. The prior analyses were based on data for the period from May 1, 2005 through July 31, 2005 while the analyses presented here are based on data for the period May 1, 2005 through March 31, 2006.

The following table summarizes the requested 24 divestiture scenarios and the relevant markets for which impacts were evaluated that are in addition to the 252 divestiture scenarios already analyzed, for a total of 276 scenarios.

Scenario Name	Divestiture Options	Studied Market: Aggregate Energy	Studied Market: Local Energy	Studied Market: Capacity	Studied Market: Regulation
Petitioner's	8	x			
Petitioner's w/nuclear to 2 new	8	x			
Petitioner's w/nuclear to multiple	8	x			
Total	24				

Sensitivity Analysis Requests

A summary of the request from the Staff of the New Jersey Board of Public Utilities, a summary of the results, and tables showing the results of the MMU sensitivity analyses in each case are provided below:

1. Petitioners

The Staff of the New Jersey Board of Public Utilities requested that the MMU rerun the Petitioners' divestiture scenarios shown in tables 1-1 through 1-3 of the February 9, 2006 MMU report, and expanded in Staff Exhibit S-584, to include the time period May 1, 2005 through March 31, 2006. It was further requested that the MMU present the results by peak and off-peak hours. As a result, there is an additional table in each scenario including the peak and off- peak results.

In section 1 of the February 9, 2006 MMU report the Petitioners requested the following analysis:

By letter dated December 28, 2005, the Petitioners requested analysis of two core fossil divestiture packages each containing coal, intermediate and peaking units. Core package one consisted of Eddystone, Cromby and Linden along with either the Edison and Croydon or the Edison and Essex plants. Core package two consisted of Mercer, Cromby and Linden with either the Burlington, Edison and Sewaren plants or Croydon, Essex and Sewaren. For each core package, the Petitioners set out four different ways the assets might be bundled to prospective purchasers, so that there are eight scenarios in all. The scenarios were identified by Petitioners as 1a through 1d for core package one and 2a through 2d for core package two. The MMU substituted the Bergen plant for the Linden plant in our analyses as the Linden plant was not in service for the periods included in our analyses and was therefore not included in our initial analyses. The results are presented in Tables 1-1 through 1-4 below.

In summary, the proposed divestiture packages:

- Result in every case in an average hourly increase in HHI that is greater than the increase specified in the Guidelines for the aggregate energy market.

Aggregate Hourly Energy Market

Table 1-1 Aggregate Energy Market – Pre-Merger HHIs

	Minimum	Average	Maximum
May 1 - March 31	856	1219	1565

Table 1-2 Aggregate Energy Market – Post-Divestiture HHIs

	Scenario	Minimum	Average	Maximum
May 1 - March 31	1A	1015	1443	2005
May 1 - March 31	1B	1002	1442	2005
May 1 - March 31	1C	997	1439	2004
May 1 - March 31	1D	1014	1442	2004
May 1 - March 31	2A	1011	1444	2020
May 1 - March 31	2B	1019	1443	2020
May 1 - March 31	2C	1012	1443	2020
May 1 - March 31	2D	1021	1443	2020

Table 1-3 Aggregate Energy Market Hourly HHI Differences

	Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference >=100	Percentage of Hours HHI Difference >=100
May 1 - March 31	1A	94	225	442	8,038	99.98%
May 1 - March 31	1B	93	223	442	8,031	99.89%
May 1 - March 31	1C	90	220	441	8,018	99.73%
May 1 - March 31	1D	94	224	442	8,038	99.98%
May 1 - March 31	2A	103	225	457	8,040	100.00%
May 1 - March 31	2B	104	225	457	8,040	100.00%
May 1 - March 31	2C	104	225	457	8,040	100.00%
May 1 - March 31	2D	104	224	457	8,040	100.00%

Table 1-4 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics)

	Scenario	Total Peak Hours	Number of Peak Hours HHI Difference >=100	Percentage of Peak Hours HHI Difference >=100	Total Off-Peak Hours	Number of Off-Peak Hours HHI Difference >=100	Percentage of Off-Peak Hours HHI Difference >= 100
May 1 - March 31	1A	3,728	3,726	99.95%	4,312	4,312	100.00%
May 1 - March 31	1B	3,728	3,719	99.76%	4,312	4,312	100.00%
May 1 - March 31	1C	3,728	3,706	99.41%	4,312	4,312	100.00%
May 1 - March 31	1D	3,728	3,726	99.95%	4,312	4,312	100.00%
May 1 - March 31	2A	3,728	3,728	100.00%	4,312	4,312	100.00%
May 1 - March 31	2B	3,728	3,728	100.00%	4,312	4,312	100.00%
May 1 - March 31	2C	3,728	3,728	100.00%	4,312	4,312	100.00%
May 1 - March 31	2D	3,728	3,728	100.00%	4,312	4,312	100.00%

2. Petitioners 1/25/06 Request

The Staff of the New Jersey Board of Public Utilities requested that the MMU rerun the Petitioners' divestiture scenarios shown in tables 6-1 though 6-6 of the February 9, 2006 MMU report, and expanded in Staff Exhibit S-584, to include the time period May 1, 2005 through March 31, 2006. It was further requested that the MMU present the results by peak and off-peak hours. As a result, there is an additional table in each scenario including the peak and off- peak results.

In section 6 of the February 9, 2006 MMU report the Petitioners requested the following analysis:

By email dated January 25, 2006, the Petitioners requested additional analysis associated with the initial response to the Petitioners' request which is presented in section 1 above. The base analysis continues to be of two core fossil divestiture packages each containing coal, intermediate and peaking units. Core package one consisted of Eddystone, Cromby and Linden along with either the Edison and Croydon or the Edison and Essex plants. Core package two consisted of Mercer, Cromby and Linden with either the Burlington, Edison and Sewaren plants or Croydon, Essex and Sewaren. For each core package, the Petitioners set out four different ways the assets might be bundled to prospective purchasers, so that there are eight scenarios in all. The scenarios were identified by Petitioners as 1a through 1d for core package one and 2a through 2d for core package two. The MMU substituted the Bergen plant for the Linden plant in our analyses as the Linden plant was not in service for the periods included in our analyses and was therefore not included in our initial analyses. The Petitioners' additional request is to add the divestiture of 2,446 MWH of 24 x 7 energy, equivalent to the divestiture of 2,600 MW of nuclear capacity with a 93 percent capacity factor. The MMU used a fixed percentage of six nuclear power plants owned by Exelon. The average hourly MW divested in the analysis is 2,488 MW.

In particular, the Petitioners requested that the MMU use the following sets of buyer assumptions:

1. The additional nuclear divestiture goes equally to two parties without current market share;
2. The additional nuclear divestiture goes to the following sets of buyers in the proportions detailed below (the exact names and percentages were provided by Petitioners):

a.	BP Energy Company	8.70%
b.	Conectiv	2.90%
c.	Con Edison Development	1.45%
d.	Constellation Generation Gp	23.19%
e.	DTE	5.80%
f.	FPL Energy, Inc.	7.25%
g.	J. Aron and Co.	8.70%
h.	Morgan Stanley	7.25%
i.	NRG New Jersey	8.70%
j.	Reliant	13.04%
k.	Select Energy	13.04%

The results are presented in tables 2-1 through 2-8 below.

In summary, the proposed divestiture packages when the additional divestiture goes equally to two parties that are not current market participants:

- Result in every case in an average hourly increase in HHI that is less than the increase specified in the Guidelines for the aggregate energy market.

In summary, the proposed divestiture packages when the additional divestiture goes to the specified multiple buyers:

- Result in every case in an average hourly increase in HHI that is less than the increase specified in the Guidelines for the aggregate energy market.

Aggregate Hourly Energy Market

Table 2-1 Aggregate Energy Market – Pre-Merger HHIs

	Minimum	Average	Maximum
May 1 - March 31	856	1219	1565

Table 2-2 Aggregate Energy Market – Post-Divestiture HHIs – Nuclear Divestiture to Two New Entrants

	Scenario	Minimum	Average	Maximum
May 1 - March 31	1A	938	1295	1695
May 1 - March 31	1B	925	1294	1695
May 1 - March 31	1C	922	1290	1694
May 1 - March 31	1D	938	1294	1694
May 1 - March 31	2A	934	1296	1708
May 1 - March 31	2B	941	1295	1708
May 1 - March 31	2C	935	1295	1708
May 1 - March 31	2D	943	1294	1708

Table 2-3 Aggregate Energy Market Hourly HHI Differences – Nuclear Divestiture to Two New Entrants

	Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference >=100	Percentage of Hours HHI Difference >=100
May 1 - March 31	1A	1	76	153	1,169	14.54%
May 1 - March 31	1B	-3	75	153	1,090	13.56%
May 1 - March 31	1C	-5	72	150	953	11.85%
May 1 - March 31	1D	-1	75	152	1,083	13.47%
May 1 - March 31	2A	11	77	166	1,134	14.10%
May 1 - March 31	2B	9	76	166	1,144	14.23%
May 1 - March 31	2C	11	76	166	1,070	13.31%
May 1 - March 31	2D	9	76	166	1,077	13.40%

Table 2-4 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics) – Nuclear Divestiture to Two New Entrants

	Scenario	Total Peak Hours	Number of Peak Hours HHI Difference >=100	Percentage of Peak Hours HHI Difference >=100	Total Off-Peak Hours	Number of Off-Peak Hours HHI Difference >=100	Percentage of Off-Peak Hours HHI Difference >= 100
May 1 - March 31	1A	3,728	210	5.63%	4,312	959	22.24%
May 1 - March 31	1B	3,728	181	4.86%	4,312	909	21.08%
May 1 - March 31	1C	3,728	140	3.76%	4,312	813	18.85%
May 1 - March 31	1D	3,728	183	4.91%	4,312	900	20.87%
May 1 - March 31	2A	3,728	158	4.24%	4,312	976	22.63%
May 1 - March 31	2B	3,728	177	4.75%	4,312	967	22.43%
May 1 - March 31	2C	3,728	141	3.78%	4,312	929	21.54%
May 1 - March 31	2D	3,728	158	4.24%	4,312	919	21.31%

Table 2-5 Aggregate Energy Market – Pre-Merger HHIs

	Minimum	Average	Maximum
May 1 - March 31	856	1219	1565

Table 2-6 Aggregate Energy Market – Post-Divestiture HHIs – Nuclear Divestiture to Multiple Buyers

	Scenario	Minimum	Average	Maximum
May 1 - March 31	1A	947	1307	1713
May 1 - March 31	1B	934	1305	1713
May 1 - March 31	1C	929	1302	1711
May 1 - March 31	1D	946	1305	1712
May 1 - March 31	2A	942	1307	1726
May 1 - March 31	2B	950	1307	1726
May 1 - March 31	2C	943	1306	1726
May 1 - March 31	2D	951	1306	1726

Table 2-7 Aggregate Energy Market Hourly HHI Differences – Nuclear Divestiture to Multiple Buyers

	Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference >=100	Percentage of Hours HHI Difference >=100
May 1 - March 31	1A	10	88	181	2,549	31.70%
May 1 - March 31	1B	7	87	181	2,426	30.17%
May 1 - March 31	1C	4	83	177	2,014	25.05%
May 1 - March 31	1D	10	87	180	2,363	29.39%
May 1 - March 31	2A	17	89	195	2,584	32.14%
May 1 - March 31	2B	16	88	195	2,568	31.94%
May 1 - March 31	2C	17	88	195	2,413	30.01%
May 1 - March 31	2D	15	87	195	2,385	29.66%

Table 2-8 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics) – Nuclear Divestiture to Multiple Buyers

	Scenario	Total Peak Hours	Number of Peak Hours HHI Difference >=100	Percentage of Peak Hours HHI Difference >=100	Total Off-Peak Hours	Number of Off-Peak Hours HHI Difference >=100	Percentage of Off-Peak Hours HHI Difference >= 100
May 1 - March 31	1A	3,728	593	15.91%	4,312	1,956	45.36%
May 1 - March 31	1B	3,728	527	14.14%	4,312	1,899	44.04%
May 1 - March 31	1C	3,728	361	9.68%	4,312	1,653	38.33%
May 1 - March 31	1D	3,728	517	13.87%	4,312	1,846	42.81%
May 1 - March 31	2A	3,728	527	14.14%	4,312	2,057	47.70%
May 1 - March 31	2B	3,728	545	14.62%	4,312	2,023	46.92%
May 1 - March 31	2C	3,728	468	12.55%	4,312	1,945	45.11%
May 1 - March 31	2D	3,728	467	12.53%	4,312	1,918	44.48%