



Exelon/PSEG Merger Sensitivity Analyses

PJM Market Monitoring Unit
April 19, 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.

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 current requested 32 divestiture scenarios and the relevant markets for which impacts were evaluated that are in addition to the 220 divestiture scenarios already analyzed, for a total of 252 scenarios.

Scenario Name	Divestiture Options	Studied Market			
		Aggregate Energy	Local Energy	Capacity	Regulation
RPA with Nuclear (2)	8	x			
RPA with Nuclear (3)	8	x			
Petitioner’s Scenarios with Nuclear (2)	8	x			
Petitioner’s Scenarios with Nuclear (3)	8	x			
Total	32				

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. New Jersey Ratepayer Advocate

The Staff of the New Jersey Board of Public Utilities requested that the MMU rerun the “Petitioners’ divestiture scenarios 1A through 1D and 2A through 2D of the Ratepayer Advocate’s (“RPA”) large buyer sensitivity, depicted in section 5 of the February 17, 2006 MMU report,” 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. For completeness, the MMU analyzed all of the scenarios presented in section 5 of the February 17, 2006 MMU report for the time period requested.

In section 5 of the February 17, 2006 MMU report the New Jersey Ratepayer Advocate requested the following analysis (note that references are to the February 9, 2006 MMU Report rather than to the February 2, 2006 MMU Report which it replaced):

With reference to the Petitioners’ request of January 25, 2006:

1. 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 9, 2006 PJM MMU report (p. 16) with the assumption that the nuclear 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). (This analysis includes the Ratepayer Advocate’s fossil divestiture scenarios, as specified in Section 4 of the February 9, 2006 MMU Report.)
2. 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 9, 2006 PJM MMU report (p. 16) with the assumption that the nuclear 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). (This analysis includes the Ratepayer Advocate’s fossil divestiture scenarios, as specified in Section 4 of the February 9, 2006 MMU Report.)
3. For the PJM Aggregate Hourly Energy Market: Please run the Petitioners’ scenarios examined in Tables 6-2 through 6-6 of the February 9, 2006 PJM MMU report (pp. 28-29) with the assumption that the nuclear 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). (This analysis includes the same fossil divestiture scenarios used in Section 6 of the February 9, 2006 MMU Report. As specified at page 2 of that Report, “the buyers most likely to pass the Guidelines for the local energy market defined by the PJM eastern interface constraint were selected.”)
4. For the PJM Aggregate Hourly Energy Market: Please run the Petitioners’ scenarios examined in Tables 6-2 through 6-6 of the February 9, 2006 PJM MMU report (pp. 28-29) with the assumption that the nuclear 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). (This analysis includes the same fossil divestiture scenarios used in Section 6 of the February 9, 2006 MMU Report. As specified at page 2 of that Report, “the buyers most likely to pass the Guidelines for the local energy market defined by the PJM eastern interface constraint were selected.”)

In summary, the proposed modifications of prior Tables 4-2 and 4-3 scenarios:

- 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 when divestiture is to the next two largest market participants. (See Tables 1-1 through 1-4);
- Result in scenarios 1a and 1b in an average hourly increase in HHI that is less than the increase specified in the Guidelines for the aggregate energy market when divestiture is to the next three largest market participants. (See Tables 2-1 through 2-4);
- Result in scenarios 1c, 1d, 2a, 2b, 2c and 2d in an average hourly increase in HHI that is greater than the increase specified in the Guidelines for the aggregate energy market when divestiture is to the next three largest market participants. (See Tables 2-1 through 2-4);

In summary, the proposed modifications of prior Tables 6-2 through 6-6 scenarios:

- 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 when divestiture is to the next two largest market participants. (See Tables 3-1 through 3-4);
- 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 when divestiture is to the next three largest market participants. (See Tables 4-1 through 4-4).

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 – RPA 2 Participant Scenarios

	Scenario	Minimum	Average	Maximum
May 1 - March 31	1A	980	1330	1721
May 1 - March 31	1B	976	1329	1721
May 1 - March 31	1C	973	1335	1723
May 1 - March 31	1D	984	1336	1723
May 1 - March 31	2A	986	1332	1734
May 1 - March 31	2B	987	1331	1734
May 1 - March 31	2C	986	1338	1735
May 1 - March 31	2D	991	1337	1735

Table 1-3 Aggregate Energy Market Hourly HHI Differences – RPA 2 Participant Scenarios

	Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference ≥ 100	Percentage of Hours HHI Difference ≥ 100
May 1 - March 31	1A	43	112	187	5,782	71.92%
May 1 - March 31	1B	41	111	187	5,710	71.02%
May 1 - March 31	1C	43	116	189	6,503	80.88%
May 1 - March 31	1D	48	117	189	6,619	82.33%
May 1 - March 31	2A	53	113	197	6,018	74.85%
May 1 - March 31	2B	52	113	197	5,961	74.14%
May 1 - March 31	2C	59	119	202	6,824	84.88%
May 1 - March 31	2D	53	118	202	6,710	83.46%

Table 1-4 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics) – RPA 2 Participant Scenarios

Scenario	Total Peak Hours	Number of Peak Hours		Total Off-Peak Hours	Number of Off-Peak Hours	
		HHI Difference >=100	Percentage of Peak Hours >=100		HHI Difference >=100	Percentage of Off-Peak Hours >= 100
May 1 - March 31 1A	3,728	2,347	62.96%	4,312	3,435	79.66%
May 1 - March 31 1B	3,728	2,316	62.12%	4,312	3,394	78.71%
May 1 - March 31 1C	3,728	2,764	74.14%	4,312	3,739	86.71%
May 1 - March 31 1D	3,728	2,824	75.75%	4,312	3,795	88.01%
May 1 - March 31 2A	3,728	2,545	68.27%	4,312	3,473	80.54%
May 1 - March 31 2B	3,728	2,518	67.54%	4,312	3,443	79.85%
May 1 - March 31 2C	3,728	2,980	79.94%	4,312	3,844	89.15%
May 1 - March 31 2D	3,728	2,918	78.27%	4,312	3,792	87.94%

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 – RPA 3 Participants Scenarios

Scenario	Minimum	Average	Maximum
May 1 - March 31 1A	970	1318	1710
May 1 - March 31 1B	965	1317	1710
May 1 - March 31 1C	963	1323	1711
May 1 - March 31 1D	974	1324	1711
May 1 - March 31 2A	976	1320	1723
May 1 - March 31 2B	977	1319	1723
May 1 - March 31 2C	976	1325	1724
May 1 - March 31 2D	981	1325	1724

Table 2-3 Aggregate Energy Market Hourly HHI Differences - RPA 3 Participants Scenarios

Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference	
				>=100	Percentage of Hours HHI Difference >=100
May 1 - March 31 1A	29	99	176	4,024	50.05%
May 1 - March 31 1B	29	99	173	3,897	48.47%
May 1 - March 31 1C	31	104	177	4,900	60.95%
May 1 - March 31 1D	33	105	177	5,101	63.45%
May 1 - March 31 2A	40	101	185	4,296	53.43%
May 1 - March 31 2B	40	101	185	4,250	52.86%
May 1 - March 31 2C	48	107	190	5,308	66.02%
May 1 - March 31 2D	42	106	190	5,208	64.78%

Table 2- 4 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics) – RPA 3 Participant Scenarios

Scenario	Total Peak Hours	Number of Peak Hours		Percentage of Peak Hours		Total Off-Peak Hours	Number of Off-Peak Hours		Percentage of Off-Peak Hours	
		HHI Difference >=100	HHI Difference >=100	HHI Difference >=100	HHI Difference >=100		HHI Difference >=100	HHI Difference >=100		
May 1 - March 31 1A	3,728	1,352	36.27%	4,312	2,672	61.97%				
May 1 - March 31 1B	3,728	1,273	34.15%	4,312	2,624	60.85%				
May 1 - March 31 1C	3,728	1,853	49.70%	4,312	3,047	70.66%				
May 1 - March 31 1D	3,728	1,982	53.17%	4,312	3,119	72.33%				
May 1 - March 31 2A	3,728	1,503	40.32%	4,312	2,793	64.77%				
May 1 - March 31 2B	3,728	1,494	40.08%	4,312	2,756	63.91%				
May 1 - March 31 2C	3,728	2,111	56.63%	4,312	3,197	74.14%				
May 1 - March 31 2D	3,728	2,088	56.01%	4,312	3,120	72.36%				

Table 3- 1 Aggregate Energy Market – Pre-Merger HHIs

	Minimum	Average	Maximum
May 1 - March 31	856	1219	1565

Table 3- 2 Aggregate Energy Market – Post-Divestiture HHIs – Nuclear Divestiture to Two

Scenario	Minimum	Average	Maximum
May 1 - March 31 1A	967	1328	1720
May 1 - March 31 1B	954	1326	1720
May 1 - March 31 1C	953	1325	1720
May 1 - March 31 1D	969	1328	1721
May 1 - March 31 2A	963	1328	1733
May 1 - March 31 2B	971	1328	1733
May 1 - March 31 2C	966	1329	1733
May 1 - March 31 2D	974	1328	1733

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

Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference		Percentage of Hours HHI Difference	
				>=100	>=100	>=100	>=100
May 1 - March 31 1A	36	109	187	5,373	66.83%		
May 1 - March 31 1B	32	108	187	5,150	64.05%		
May 1 - March 31 1C	34	106	186	4,894	60.87%		
May 1 - March 31 1D	40	110	187	5,435	67.60%		
May 1 - March 31 2A	47	110	194	5,365	66.73%		
May 1 - March 31 2B	43	109	194	5,311	66.06%		
May 1 - March 31 2C	49	110	194	5,493	68.32%		
May 1 - March 31 2D	45	110	194	5,451	67.80%		

Table 3- 4 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics) – Nuclear Divestiture to Two

Scenario	Total Peak Hours	Number of Peak Hours		Total Off-Peak Hours	Number of Off-Peak Hours	
		HHI Difference >=100	Percentage of Peak Hours >=100		HHI Difference >=100	Percentage of Off-Peak Hours >=100
May 1 - March 31 1A	3,728	2,097	56.25%	4,312	3,276	75.97%
May 1 - March 31 1B	3,728	1,963	52.66%	4,312	3,187	73.91%
May 1 - March 31 1C	3,728	1,782	47.80%	4,312	3,112	72.17%
May 1 - March 31 1D	3,728	2,122	56.92%	4,312	3,313	76.83%
May 1 - March 31 2A	3,728	2,095	56.20%	4,312	3,270	75.83%
May 1 - March 31 2B	3,728	2,100	56.33%	4,312	3,211	74.47%
May 1 - March 31 2C	3,728	2,178	58.42%	4,312	3,315	76.88%
May 1 - March 31 2D	3,728	2,192	58.80%	4,312	3,259	75.58%

Table 4- 1 Aggregate Energy Market – Pre-Merger HHIs

	Minimum	Average	Maximum
May 1 - March 31	856	1219	1565

Table 4- 2 Aggregate Energy Market – Post-Divestiture HHIs – Nuclear Divestiture to Three

Scenario	Minimum	Average	Maximum
May 1 - March 31 1A	958	1316	1709
May 1 - March 31 1B	945	1315	1709
May 1 - March 31 1C	944	1313	1709
May 1 - March 31 1D	959	1317	1710
May 1 - March 31 2A	954	1317	1723
May 1 - March 31 2B	961	1316	1723
May 1 - March 31 2C	956	1317	1723
May 1 - March 31 2D	964	1317	1723

Table 4- 3 Aggregate Energy Market Hourly HHI Differences – Nuclear Divestiture to Three

Scenario	Minimum	Average	Maximum	Number of Hours HHI Difference	
				>=100	Percentage of Hours HHI Difference >=100
May 1 - March 31 1A	26	98	173	3,821	47.52%
May 1 - March 31 1B	21	96	173	3,660	45.52%
May 1 - March 31 1C	22	94	173	3,319	41.28%
May 1 - March 31 1D	28	98	173	3,779	47.00%
May 1 - March 31 2A	36	98	183	3,847	47.85%
May 1 - March 31 2B	33	98	183	3,807	47.35%
May 1 - March 31 2C	37	99	183	3,874	48.18%
May 1 - March 31 2D	34	98	183	3,835	47.70%

Table 4- 4 Aggregate Energy Market Hourly HHI Differences (Peak/Off-Peak Statistics) – Nuclear Divestiture to Three

	Scenario	Number of Peak Hours		Percentage of Peak Hours		Number of Off-Peak Hours		Percentage of Off-Peak Hours	
		Total Peak Hours	HHI Difference >=100	HHI Difference >=100	Total Off-Peak Hours	HHI Difference >=100	HHI Difference >= 100		
May 1 - March 31	1A	3,728	1,238	33.21%	4,312	2,583	59.90%		
May 1 - March 31	1B	3,728	1,129	30.28%	4,312	2,531	58.70%		
May 1 - March 31	1C	3,728	933	25.03%	4,312	2,386	55.33%		
May 1 - March 31	1D	3,728	1,206	32.35%	4,312	2,573	59.67%		
May 1 - March 31	2A	3,728	1,224	32.83%	4,312	2,623	60.83%		
May 1 - March 31	2B	3,728	1,233	33.07%	4,312	2,574	59.69%		
May 1 - March 31	2C	3,728	1,231	33.02%	4,312	2,643	61.29%		
May 1 - March 31	2D	3,728	1,243	33.34%	4,312	2,592	60.11%		