

CASE 06-T-0650

LONG ISLAND POWER AUTHORITY
INTERROGATORY/DOCUMENT REQUEST
TO NEW YORK REGIONAL INTERCONNECT, INC.
("NYRI")

Request No: LIPA-35
Date of Request: March 18, 2009
Reply Date: March 30, 2009
Subject: Witness: Lesser-Puga Panel
Witness: NYRI Witnesses Lesser and Puga

OF NEW YORK
PUBLIC SERVICE
JF 3/31/06
Case No 06-T-0650
Exh 286

35. Please refer to page 97, lines 4-20 of your rebuttal testimony.

a. Why was it necessary to perform an independent analysis of production cost benefits?

Response:

We were asked by NYRI to perform such an analysis as a further check on the GE-MAPS modeling results. Given the complexity of this form of system analysis, it can be useful to compare the estimated production cost savings using different models.

b. Does the Aurora analysis supersede the MAPS analysis performed by Panel C?

Response:

No. Please see the response to LIPA-35.a.

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Request No: LIPA-36
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36. Does Aurora compute locational prices (LBMPs) for each zone in the model? If yes, please provide the forecasted LBMPs for each zone in New York with and without NYRI for the years 2012, 2015, and 2018.

Response:

Zonal Price In 2006 Real \$/MWh

| NYCA Zone | 2012 | | 2015 | | 2018 | |
|-----------|--------------|-----------|--------------|-----------|--------------|-----------|
| | Without NYRI | With NYRI | Without NYRI | With NYRI | Without NYRI | With NYRI |
| A | \$ 60.60 | \$ 61.20 | \$ 67.69 | \$ 68.39 | \$ 78.42 | \$ 73.20 |
| B | \$ 62.20 | \$ 63.30 | \$ 69.63 | \$ 70.91 | \$ 78.33 | \$ 79.04 |
| C | \$ 63.18 | \$ 64.20 | \$ 70.92 | \$ 72.08 | \$ 79.86 | \$ 80.44 |
| D | \$ 63.52 | \$ 64.60 | \$ 71.35 | \$ 72.58 | \$ 80.43 | \$ 81.14 |
| E | \$ 64.20 | \$ 65.02 | \$ 71.98 | \$ 72.92 | \$ 80.90 | \$ 81.51 |
| F | \$ 64.68 | \$ 65.20 | \$ 72.68 | \$ 73.37 | \$ 82.15 | \$ 82.67 |
| G | \$ 70.72 | \$ 70.03 | \$ 78.68 | \$ 77.67 | \$ 87.26 | \$ 85.10 |
| H | \$ 72.13 | \$ 71.50 | \$ 80.39 | \$ 79.52 | \$ 88.55 | \$ 87.01 |
| I | \$ 71.98 | \$ 71.45 | \$ 80.33 | \$ 79.61 | \$ 89.22 | \$ 88.24 |
| J | \$ 78.61 | \$ 78.10 | \$ 86.48 | \$ 85.67 | \$ 92.79 | \$ 90.82 |
| K | \$ 78.43 | \$ 78.03 | \$ 86.23 | \$ 85.55 | \$ 92.76 | \$ 91.05 |

Note:
Same generation for 2012 and 2015 pre- and post-NYRI cases.
In 2018 the following generation resources were added to both pre- and post NYRI cases to avoid load curtailment.

| Without NYRI Addtl. Resources | | |
|-------------------------------|---------------|------|
| Heat Rate | Capacity (MW) | Area |
| 7,000 | 1,000 | E |
| 7,000 | 600 | G |
| 9,000 | 230 | J |
| 9,000 | 230 | J |

| w/NYRI Addtl. Resources | | |
|-------------------------|---------------|------|
| Heat Rate | Capacity (MW) | Area |
| 9,000 | 230 | G |
| 9,000 | 230 | G |
| 9,000 | 230 | I |
| 9,000 | 230 | I |
| 9,000 | 230 | J |

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**LONG ISLAND POWER AUTHORITY
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Request No: LIPA-37
Date of Request: March 18, 2009
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37. Does Aurora model regions outside of New York? If yes, please identify all such regions modeled.

Response:

Please refer to the response to DPS-128.5.

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**LONG ISLAND POWER AUTHORITY
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Request No: LIPA-38
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38. Please provide the Aurora input file(s) in electronic format for the With and Without NYRI cases for the years 2012, 2015, and 2018.

Response:

NYRI objects to this request on the grounds that it seeks information that is confidential and since LIPA has informed NYRI that LIPA does not have a license to run the Aurora model, providing LIPA the Aurora input files would serve no purpose in this proceeding.

Name of Person Preparing Response: _____ Date: _____

CASE 06-T-0650

**LONG ISLAND POWER AUTHORITY
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Request No: LIPA-39
Date of Request: March 18, 2009
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Subject: Witness: Lesser-Puga Panel
Witness: NYRI Witnesses Lesser and Puga

39. Please refer to pages 98 and 99 of your rebuttal testimony.

- a. Would a more efficient dispatch include increased output from lower cost generating units and decreased output from higher cost generating units?

Response:

That is a general description of what we would term "more efficient" dispatch. In a perfectly competitive market with no transmission constraints, the marginal cost of dispatch in all zones should differ by no more than the implicit cost of transmission losses across the system.

- b. Would a more efficient dispatch result in increased flows between upstate and downstate?

Response:

To the extent that there are available and lower-cost generating resources that can displace higher-cost downstate resources, yes.

- c. Please provide NYRI's estimate of the cost of solving or addressing the intra-zone transmission constraints referenced on lines 7-10 on page 99.

Response:

Name of Person Preparing Response: _____ Date: _____

We did not prepare any estimates of the costs to "solve" or "address" intra-zonal transmission constraints.

Name of Person Preparing Response: _____ Date: _____

CASE 06-T-0650

LONG ISLAND POWER AUTHORITY
INTERROGATORY/DOCUMENT REQUEST
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Request No: LIPA-40
Date of Request: March 18, 2009
Reply Date: March 30, 2009
Subject: Witness: Lesser-Puga Panel
Witness: NYRI Witnesses Lesser and Puga

40. Please provide a table summarizing the MW of capacity additions assumed in the With NYRI and Without NYRI cases, by type (wind, coal, combined-cycle and combustion turbine). For each addition, please identify the location (zone), and year of installation.

Response:

Please see Table 2 on page 102 of Dr. Lesser and Mr. Puga's rebuttal testimony in this proceeding.

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**LONG ISLAND POWER AUTHORITY
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Request No: LIPA-41
Date of Request: March 18, 2009
Reply Date: March 30, 2009
Subject: Witness: Lesser-Puga Panel
Witness: NYRI Witnesses Lesser and Puga

41. Please provide the inter-zonal transmission limits assumed in the Aurora model.

Response:

Please refer to Exhibit LIPA-41, attached hereto.

Name of Person Preparing Response: _____ Date: _____

CASE 06-T-0650

LONG ISLAND POWER AUTHORITY
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Request No: LIPA-42
Date of Request: March 18, 2009
Reply Date: March 30, 2009
Subject: Witness: Lesser-Puga Panel
Witness: NYRI Witnesses Lesser and Puga

42. Did your analysis account for the capital cost differences between the capacity additions assumed in the With NYRI case and the Without NYRI case? If not, please explain.

Response:

No. As our rebuttal testimony discusses, we believe one of the most important benefits of the NYRI project will be in helping the state meet public policy goals, including wind resource development upstate to meet the RPS, increased energy resource and fuel diversity, and reduced greenhouse gas emissions. As Table 2 (p.102) of our rebuttal testimony shows, we assumed that the with-NYRI case would allow development of over 1,800 MW of wind generation in UPNY that would not otherwise be developed because of insufficient transmission capacity. Since meeting an RPS is inherently not a "least-cost" decision from a private cost standpoint (otherwise there would be no need for an RPS), including all of the additional capital costs associated with additional wind generation development in the with-NYRI case would not be an appropriate cost-benefit comparison.

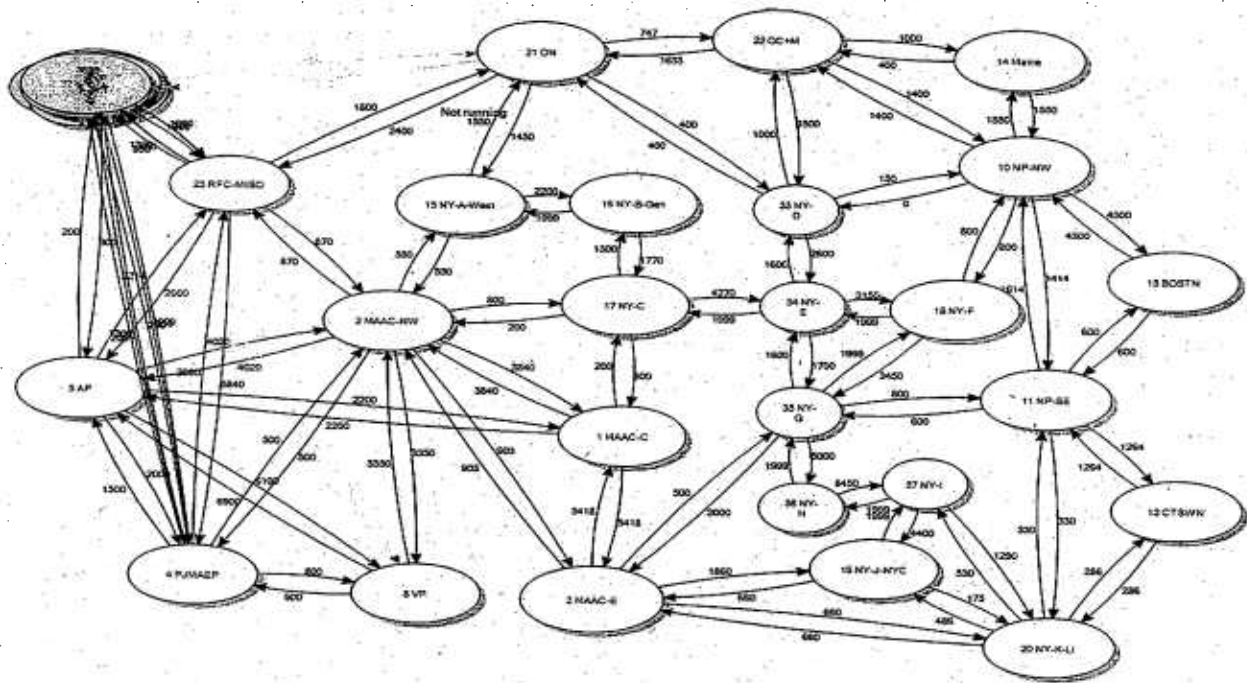
Name of Person Preparing Response: _____ Date: _____

Aurora NYISO Interzonal and Boundary Transfer Limits

| From Area | To Area | Capacity (MW) | Source |
|--------------------------|--------------------------|---------------|--|
| PJM East | J-NYC | 1860 | 2009 RNA (1200 MW) plus 660 MW Hudson Line |
| PJM East | K-LongIsland | 660 | Neptune Line; 2009 RNA |
| PJM West | A-West | 550 | 2009 RNA |
| PJM West | C-Central | 800 | 2009 RNA |
| PJM East | G-HudsonValley | 500 | 2009 RNA |
| Quebec | D-North | 1500 | 2009 RNA |
| A-West | PJM West | 550 | 2009 RNA |
| A-West | B-Genesee | 2200 | Dysinger East; 2009 RNA |
| A-West | Ontario | 1550 | 2009 RNA |
| B-Genesee | A-West | 1999 | Dysinger East; 2009 RNA |
| B-Genesee | C-Central | 1770 | West Central; 2009 RNA |
| C-Central | PJM West | 200 | 2009 RNA |
| C-Central | B-Genesee | 1300 | West Central; 2009 RNA |
| C-Central | E-MohawkValley | 4270 | Volney East; 2009 RNA |
| D-North | Quebec | 1000 | 2009 RNA |
| D-North | E-MohawkValley | 2600 | Moses South |
| D-North | Ontario | 400 | 2009 RNA |
| D-North | isoNE-Vermont | 150 | 2009 RNA |
| E-MohawkValley | C-Central | 1999 | Volney East; 2009 RNA |
| E-MohawkValley | D-North | 1600 | Moses South; 2009 RNA |
| E-MohawkValley | F-Capital | 3150 | Central East plus Fraser-Gilboa; 2009 RNA |
| E-MohawkValley | G-HudsonValley | 2900 | Marcy South; 2009 RNA plus 1200 MW NYRI |
| F-Capital | E-MohawkValley | 1999 | Central East plus Fraser-Gilboa; 2009 RNA |
| F-Capital | G-HudsonValley | 3450 | 2009 RNA |
| F-Capital | isoNE-MassachusettsWest | 400 | 2009 RNA |
| F-Capital | isoNE-Vermont | 400 | 2009 RNA |
| G-HudsonValley | PJM East | 2000 | 2009 RNA |
| G-HudsonValley | E-MohawkValley | 1600 | Marcy South; 2009 RNA |
| G-HudsonValley | F-Capital | 1999 | 2009 RNA |
| G-HudsonValley | H-Millwood | 5000 | UPNY-ConEd; 2009 RNA |
| G-HudsonValley | isoNE-ConnecticutCentral | 800 | 2009 RNA |
| H-Millwood | G-HudsonValley | 1999 | UPNY-ConEd; 2009 RNA |
| H-Millwood | I-Dunwoodie | 8450 | Millwood South; 2009 RNA |
| I-Dunwoodie | H-Millwood | 1999 | Millwood South; 2009 RNA |
| I-Dunwoodie | J-NYC | 4400 | Dunwoodie South; 2009 RNA Table 4-3 |
| I-Dunwoodie | K-LongIsland | 1290 | Y49/Y50; 2009 RNA |
| J-NYC | PJM East | 660 | 660 MW Hudson Line |
| J-NYC | I-Dunwoodie | 1999 | 2009 RNA |
| J-NYC | K-LongIsland | 175 | ConEd-LIPA; 2009 RNA |
| K-LongIsland | PJM East | 660 | Neptune Line; 2009 RNA |
| K-LongIsland | I-Dunwoodie | 530 | Y49/Y50; 2009 RNA |
| K-LongIsland | J-NYC | 486 | ConEd-LIPA; 2009 RNA |
| K-LongIsland | isoNE-ConnecticutCentral | 330 | Cross Sound Controllable Line; 2009 RNA |
| K-LongIsland | isoNE-ConnecticutNorwalk | 286 | 2009 RNA |
| Ontario | D-North | 400 | 2009 RNA |
| Ontario | A-West | 1450 | 2009 RNA |
| isoNE-ConnecticutCentral | G-HudsonValley | 600 | 2009 RNA |
| isoNE-ConnecticutCentral | K-LongIsland | 330 | Cross Sound Controllable Line; 2009 RNA |
| isoNE-ConnecticutNorwalk | K-LongIsland | 286 | 2009 RNA |
| isoNE-MassachusettsWest | F-Capital | 400 | 2009 RNA |
| isoNE-Vermont | D-North | 0 | 2009 RNA |
| isoNE-Vermont | F-Capital | 400 | 2009 RNA |
| C-Central | PJM Central | 300 | 2009 RNA |
| PJM Central | C-Central | 200 | 2009 RNA |

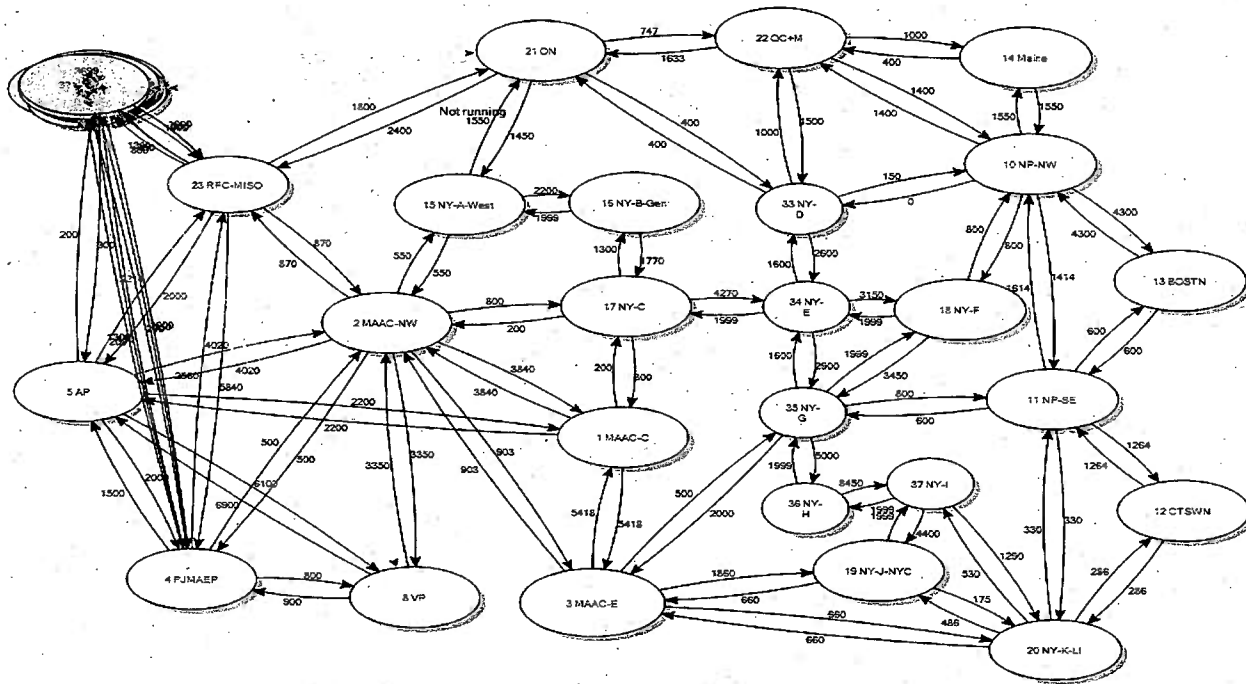
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Base Case: Without NYRI Case



♦♦♦BATES•WHITE♦♦♦

Base Case + NYRI



•••BATES•WHITE•••

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