

**4/30/07 – DRAFT (Without Attachments) - For ICS discussion purposes only**

**Base Case Modeling Assumptions for  
2008-09 NYCA IRM Requirement Study**

<b>Parameter</b>	<b>2007 Study Modeling Assumptions</b>	<b>Recommended 2008 Study Modeling Assumptions</b>	<b>Basis for Recommended 2008 Assumptions</b>	<b>Possible Impact on IRM</b>	<b>2008 RNA Assumptions</b>
<b>NYCA Load Model</b>					
Peak Load	33,544 MW for NYCA, 11,775 MW for zone J, and 5478 MW for zone K	To be provided by NYISO on October 1 <sup>st</sup> .	NYISO forecast based on TO forecasts of load growth.(put nat grid ref here) Top three external Area peak days aligned with NYCA.		2007 Gold Book Forecast
Load Shape Model	2002 Load Shape	2002 Load Shape	After evaluating 2006 data, analysis indicates xxx load shape is an appropriate representation for this analysis.		Same
Load Uncertainty Model	Statewide and zonal model updated to reflect current data.	Statewide and zonal model updated to reflect current data.	Updated data from LIPA, Con Ed, and NYISO.(see attachment A)		Same
Generating Unit Capacities	Updated DMNC test values.	Updated DMNC test values.	2007 Gold Book plus (list units that have come on line since GB).		Same and constant
New Units	Gold Book (table III) units plus: Prattsburgh	Gold Book (table III) units plus:	2007 Gold Book and those with		As per Table of Future Projects

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	Wind Park - 79.5 MW (10/06), Flat Rock Wind Power (phase 2) - 100 MW (12/06)		Interconnection agreements signed by August 1 <sup>st</sup> .		
Wind Resources	Derived from hourly wind data with average Summer Peak Hour capacity factor of 11.4%	Derived from hourly wind data with average Summer Peak Hour capacity factor of xx.x%	Based on collected hourly wind data. Summer Peak Hour capacity factor based on June 1-Aug 31, hours (beginning) 2-5 PM.		Same
Retirements	Huntley 65&66 (165 MW), Lovett 5 (176.2 MW) Lovett 3 (46.8 MW)	Lovett 4 (160.9 MW), Russell Station (236.4 MW) Plus units indicated	2007 Gold Book plus units indicated by Aug. 1.		2007 Gold Book
Forced & Partial Outage Rates	5-year (2001-05) GADS data. (Those units with less than five years data will use available representative data.)	5-year (2002-06) GADS data. (Those units with less than five years data will use available representative data.)	Most recent 5-year period.		Same and constant
Planned Outages	Based on schedules received by NYISO & adjusted for history.	Based on schedules received by NYISO & adjusted for history.	Updated schedules.		Same and Constant
Summer Maintenance	Continue with approximately 150 MW after reviewing last year's data.	Continue with approximately xxx MW after reviewing last year's data.	Review of 2005 and 2006 data.		Same and Constant
Gas Turbines Ambient Derate	Derate expanded to include combustion	Derate based on provided temperature correction	Operational history indicates derate in		Same and Constant

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	turbine portion of combined cycle units.	curves adjusted for operational experience.	excess of temperature correction curves for some units.		
Non-NYPA Hydro Capacity Modeling	45% derating.	45% derating.	No basis for change after review of most recent data.		Same and Constant
Special Case Resources	1080 MW sold; modeled as 994 MW in July and August and proportional to monthly peak load in other months. Limit to 4 calls per month in July and August for DEC limited generation. (about 30 hour total)	xxxx MW sold; modeled as yyy MW in July and August and proportional to monthly peak load in other months. Limit to 4 calls per month in July and August for DEC limited generation. (about 30 hour total)	Those sold for the program, discounted to historic availability. (zz% overall) and distributed according to zonal performance.		Same and Constant
EDRP Resources	507 MW registered; modeled as 228 MW in July and Aug and proportional as above. Limit to 5 calls per month.	aaa MW registered; modeled as bbb MW in July and Aug and proportional as above. Limit to 5 calls per month.	Those registered for the program, discounted to historic availability. cc % overall)		Same and Constant
External Capacity	3085 MW total, 1000 from HQ, 730 from NE, 1300 from PJM, and 55 from Ontario. (see UDR section under transmission)	ffff MW total, gggg from HQ, hhh from NE, iiii from PJM, and jj from Ontario. (not counting UDRs, see UDR section under transmission)	Based on NYISO forecast. Test to ensure contracts do not impinge on relied upon assistance.		Same initially,
EOPs (other	See Attachment C.	See Attachment C.	Based on TO		Same and Constant

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than SCR and EDRP)			information, measured data, and NYISO forecasts		
<b>Transmission System Model</b>					
Interface Limits	Based on 2006 Operating Study, 2006 Operations Engineering Voltage Studies, 2006 Comprehensive Planning Process, and additional analysis.	Based on 2008 Operating Study, 2007 Operations Engineering Voltage Studies, 2007 Comprehensive Planning Process, and additional analysis.	NYISO engineering studies and NYISO planning procedure (reviewed by TPAS).		Same Initially, Changes over time With System Changes
New Transmission Capability	None Known	Introduction of Millwood Capacitor bank, Neptune including EGC to Newbridge to Ruland Road. Motthaven substation. NUSCO 1385 cable reconductoring.	Per TO information. Neptune, Motthaven, and Athens SRIS's.		Same and as per Gold Book And TO updated plans
Transmission Cable Forced Outage Rate	All existing Cable EFORs updated on LI and NYC to reflect 5 year history.	All existing Cable EFORs updated on LI and NYC (based on 2002-2006 availability).	Based on TO analysis.		Same and Constant
Unforced Capacity Deliverability Rights (UDR)	Dummy zone in NY attached to zone K and NE with 330 MW tie and 330 MW of NE units in dummy zone (for CSC).	Same arrangement with PJM to zone K (thru dummy zone) for Neptune. Modelled Contracts allow	Per recommendation from LIPA and verification from GE.		Same and Constant,

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		emergency assistance when units are out.			
<b>Model Version</b>	Version 2.83	Version x.xx	Per recommendation by ICS		Same and Constant
<b>Outside World Area Models</b>	Updated models for PJM and NE to include zonal representations.	Updated models. .	Updated per information supplied by external Control Areas.		Same and Constant ?