

CARIS I Implementation

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ESPWG
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Rensselaer, NY*

Additional Modeling Clarifications

- ◆ ConEd – PSEG (ABCJK) Wheel
- ◆ Central – East Transfer Limits
- ◆ IMO/MISO Interface Modeling
- ◆ Planned Gen Outages for Externals
- ◆ Interface Definitions – MAPS/MARS

ConEd -PSEG (ABCJK)Wheel

- ◆ **ABCJK lines modeled to control flow per FERC Settlement Agreement February 23, 2009**
- ◆ **1000 MW firm with +/- 100 MW Range**

Central – East Transfer Limit

- ◆ **Modeled per Central-East Voltage Collapse Transfer Limits Component Values**

http://www.nyiso.com/public/webdocs/market_data/power_grid_info/CE_VC_Static_limit_posting.pdf

- *Apply 100 MW operating margin*
- *Apply de-rate of 300 MW to reflect capacitor operation*
- *Nomogram to set transfer limit based on Oswego area generation operation*

IMO/MISO Interface

- ◆ **Consists of PAR controlled lines at the Detroit Michigan Border**
- ◆ **Initially Controlled to 0 MW flow with a bandwidth of +/- 100 MW**

Planned Gen Outages for Externals

- ◆ **Planned Outages Scheduled as per vendor supplied database – fixed period**
- ◆ **No random outage treatment**

Interface Definitions

- ◆ **Develop comparative list of interface definitions between MAPS/MARS**
- ◆ **Will present at joint TPAS/ESPWG May 23 meeting**

Gold Book Updates – Generation Additions Change in South Pier Improvement

TABLE IV -1: Proposed Generator Additions

QUEUE POS.	OWNER / OPERATOR	STATION UNIT	ZONE	DATE	Rating (M W)	CRIS (M W) (3)	SUMMER (1)	WINTER (1)	UNIT TYPE	Class Year	Notes
<u>Completed Class Year Facilities Study</u>											
234	Steel Winds, LLC	Steel Winds II	A	2011/08	15.0	0.0	1.5	4.5	Wind Turbines	2008	(2)
213	Noble Environmental Power, LLC	Ellenburg II Windfield	D	2011/10	21.0	21.0	2.1	6.3	Wind Turbines	2007	
182	Howard Wind, LLC	Howard Wind	C	2011/12	62.5	62.5	6.3	18.8	Wind Turbines	2007	
186	Jordanville Wind, LLC	Jordanville Wind	E	2011/12	80.0	80.0	8.0	24.0	Wind Turbines	2006	
231	Seneca Energy II, LLC	Seneca	C	2011/12	6.4	0.0	6.4	6.4	Methane	2008	
119	ECOGEN, LLC	Prattsburgh Wind Farm	C	2012/05	78.2	78.2	7.8	23.5	Wind Turbines	2003-05	
147	NY Windpower, LLC	West Hill Windfarm	C	2012/09	31.5	31.5	3.2	9.5	Wind Turbines	2006	
166	AES-Acciona Energy NY, LLC	St. Lawrence Wind Farm	E	2012/09	79.5	79.5	8.0	23.9	Wind Turbines	2007	
161	Marble River, LLC	Marble River Wind Farm	D	2012/10	84.0	84.0	8.4	25.2	Wind Turbines	2006	
171	Marble River, LLC	Marble River II Wind Farm	D	2012/10	132.3	132.3	13.2	39.7	Wind Turbines	2006	
197	PPM Roaring Brook, LLC / PPM	Roaring Brook Wind	E	2012/12	78.0	0.0	7.8	23.4	Wind Turbines	2008	
207	BPA Alternative Energy NA, Inc.	Cape Vincent	E	2012/12	210.0	0.0	21.0	63.0	Wind Turbines	2008	
<u>Class 2009 Projects</u>											
222	Noble Ball Hill Windpark, LLC	Ball Hill Windpark	A	2011/12	90.0	TBD	9.0	27.0	Wind Turbines		
232	Bayonne Energy Center, LLC	Bayonne Energy Center	J	2012/05	500.0	TBD	500.0	500.0	Dual Fuel		(2)
251	CPV Valley, LLC	CPV Valley Energy Center	G	2012/10	753.0	TBD	656.0	753.0	Combined Cycle		
<u>Class 2010 Projects</u>											
308	Astoria Energy II, LLC	Astoria Energy II	J	2011/05	617.2	TBD	576.0	617.2	Combined Cycle		(2)
330	Long Island Solar Farm, LLC	Upton Solar Farms	K	2011/05	32.0	TBD	20.8	5.1	Solar		
237	Allegany Wind, LLC	Allegany Wind	A	2011/10	72.5	TBD	7.3	21.8	Wind Turbines		
254	Ripley-Westfield Wind, LLC	Ripley-Westfield Wind	A	2011/12	124.2	TBD	12.4	37.3	Wind Turbines		
261	Astoria Generating Company	South Pier Improvement	J	2012/05	108.0	TBD	105.0	108.0	Combustion Turbine(s)		(2)
263	Stony Creek Wind Farm, LLC	Stony Creek Wind Farm	C	2012/12	88.5	TBD	8.9	26.6	Wind Turbines		
266	NRG Energy, Inc.	Berrians GT III	J	2013/06	789.0	TBD	744.0	789.0	Combined Cycle		
<u>Class 2011 Candidates</u>											
239A	Innovative Energy System, Inc.	Modern Innovative Plant	A	2011/07	6.4	TBD	6.4	6.4	Methane		
198	New Grange Wind Farm, LLC	Arkright Summit Wind Farm	A	2011/09	79.8	TBD	8.0	23.9	Wind Turbines		
169	Alabama Ledge Wind Farm, LLC	Alabama Ledge Wind Farm	B	2011	79.8	TBD	8.0	23.9	Wind Turbines		
349	Taylor Biomass Energy, LLC	Taylor Biomass	F	2012/Q4	22.6	TBD	22.6	22.6	Solid Waste		
152	Moresville Energy LLC	Moresville Energy Center	E	2012/12	99.0	TBD	9.9	29.7	Wind Turbines		
201	NRG Energy	Berrians GT	J	2013/06	200.0	TBD	200.0	200.0	Combined Cycle		
224	NRG Energy, Inc.	Berrians GT II	J	2013/06	90.0	TBD	50.0	90.0	Combined Cycle		
310	Cricket Valley Energy Center, LLC	AP Dutchess	G	2014/12	1115.0	TBD	1002.0	1115.0	Combined Cycle		
<u>Other Non-Class Year Generators</u>											
	Riverbay Corporation	Co-op City	J	2010/06	40.0		24.0	24.0	Combined Cycle		
180A	Green Power	Cody Road	C	2011/Q4	10.0	10.0	1.0	3.0	Wind Turbines		
284	Broome Energy Resources, LLC	Nanticoke Landfill	C	2011	1.6	0.0	1.6	1.6	Methane		
204A	Duer's Patent Project, LLC	Beekmantown Wind farm	D	2013/06	19.5	19.5	2.0	5.9	Wind Turbines		
					Total		4,068	4,699			

Gold Book Updates – Generation Reratings No Changes

TABLE IV-2

As of April 2011

QUEUE POS	OWNER/ OPERATOR	STATION	UNIT	ZONE	DATE	PTID	Class Year	INCREMENTAL CAPABILITY (MW)				TOTAL CAPABILITY (MW)		
								Rating (MW)	CRIS(4)	SUMMER	WINIER	Rating (MW)	CRIS(4)	SUMMER
216A	Nine Mile Point Nuclear, LLC	Nine Mile P2		C	6/1/2012	23744	2008	115.0	00	115.0	115.0	1,374.3	1,148.3	1,256.0
216B	Nine Mile Point Nuclear, LLC	Nine Mile P2		C	6/1/2014	23744	2008	53.0	00	53.0	53.0	1,427.3	1,148.3	1,309.0
127A	Airtricity Developments, LLC	Munnsville Wind Power		E	12/1/2013	323609	2006	6.0	60	06	1.8	40.5	40.5	4.1
250	Seneca Energy II, LLC	Ontario		C	11/1/2011	23819		5.6	00	5.6	5.6	11.2	5.6	11.2
Total								179.6	60	174.2	175.4	1,479.0	1,194.4	1,324.3

Gold Book Updates – Generation retirements

No changes

GENERATOR RETIREMENTS

As of April 2011

CAPABILITY (MW)

OWNER / OPERATOR	STATION	UNIT	ZONE	DATE	PTID	SUMMER	WINTER
<u>Units retired since 2010 Goldbook</u>							
Erie Blvd. Hydro - Lower Hudson	Johnsonville 2		F	1/1/2010	24059	0.0	0.0
Energy Systems North East LLC	Energy Systems North East		A	11/1/2010	23901	-79.4	-88.0
Project Orange Associates	Project Orange 1		C	11/12/2010	24174	-40.0	-46.7
Project Orange Associates	Project Orange 2		C	11/12/2010	24166	0.0	-47.6
AES Eastern Energy, LP	Greenidge 4 *		C	3/18/2011	23583	-106.1	-105.4
AES Eastern Energy, LP	Westover 8 *		C	3/18/2011	23580	-81.2	-81.5
Total						-306.7	-369.2
<p><i>* As filed with the NY DPS and NYISO, both these units are under “protective lay-up” starting 3/18/2011. Given their inactive status, the units shall be treated as retired (as per PSC order in Case 05-E-0889, footnote 1) and, hence, excluded from Installed Capacity calculations for 2011. These units could return to an active status in the future.</i></p>							

Gold Book Updates - Transmission - highlighted not included

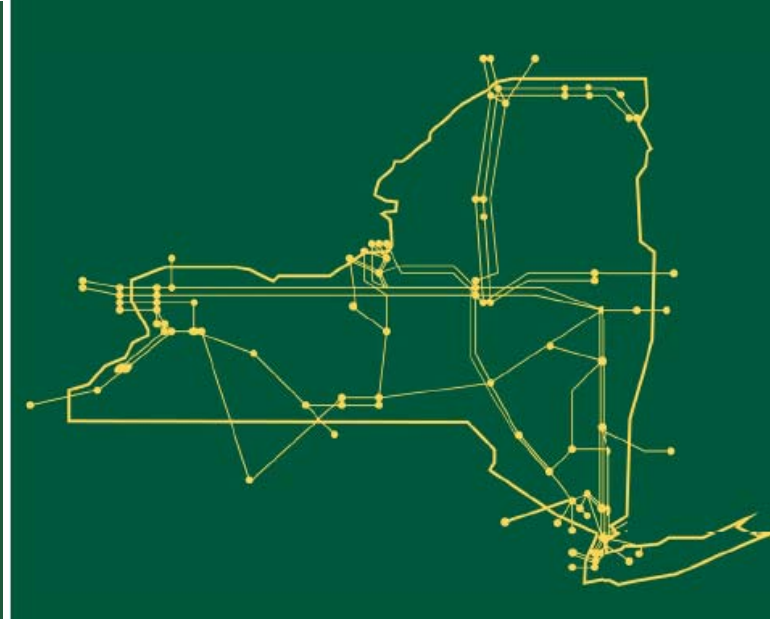
PROPOSED TRANSMISSION FACILITIES (10)

Queue Pos.	Transmission Owner	Terminals	Line Length miles (1)	Expected Service Date/Yr		Nominal Voltage in kV		
				Prior to (2)	Year	Operating	Design	
Merchant								
206	Hudson Transmission Partners	Bergen 230 kV (New Jersey)	West 49th Street 345kV			2013	345	345
Firm Plans (included in 2011 Base Cases)								
CHGE		E. Fishkill	E. Fishkill	xfm r #2	S	2012	345/115	345/115
CHGE (4)		Pleasant Valley	Todd Hill	5.60	W	2015	115	115
CHGE (4)		Todd Hill	Fishkill Plains	5.23	W	2015	115	115
CHGE		Hurley Ave	Saugerties	11.11	S	2018	115	115
CHGE		Saugerties	North Catskill	12.25	S	2018	115	115
ConEd (3)		Vernon	Vernon	Phase Shifter	S	2010	138	138
ConEd		Farragut	East 13th Street	1.98	S	2011	345	345
ConEd		Farragut	East 13th Street	1.98	S	2011	345	345
LIPA		Shore Road	Lake Success	8.72	S	2012	138	138
LIPA		Riverhead	Canal	16.40	S	2013	138	138
NYPA		Willis	Duley	-24.38	S	2012	230	230
NYPA (5)		Willis	Patnode	9.11	S	2012	230	230
NYPA (5)		Patnode	Duley	15.27	S	2012	230	230
NYPA		Niagara	Rochester	-70.20	W	2013	345	345
NYPA (5)		Niagara	BPS Station	66.40	W	2013	345	345
NYPA		Dysinger Tap	Rochester	-44.00	W	2013	345	345
NYPA (5)		Dysinger Tap	BPS Station	40.20	W	2013	345	345
NYPA (5)		BPS Station	Rochester	3.80	W	2013	345	345
NYPA (11)		Pannell	Clay	-61.60	W	2016	345	345
NYPA (5) (11)		Pannell	Auburn New 345/115 kV Sub	21.00	W	2016	345	345
NYPA (5) (11)		Auburn New 345/115 kV Sub	Clay	40.60	W	2016	345	345
NYSEG (3)		Clarks Corners	Clarks Corners	xfm r	W	2010	345/115	345/115
NYSEG (3)		Clarks Corners	Clarks Corners	xfm r	W	2010	345/115	345/115
NYSEG		Avoca	Stony Ridge	20.10	S	2011	230	230
NYSEG		Stony Ridge	Hillside	26.70	S	2011	230	230
NYSEG		Stony Ridge	Stony Ridge	xfm r	S	2011	230/115	230/115
NYSEG		Stony Ridge	Sullivan Park	6.20	S	2011	115	115
NYSEG		Sullivan Park	West Erie	3.20	S	2011	115	115
NYSEG		Meyer	Meyer	Cap Bank	S	2011	115	115
NYSEG (6)		Wood Street	Carmel	1.34	S	2012	115	115
NYSEG (6)		Wood Street	Katonah	11.70	S	2012	115	115
NYSEG		Klinekill Tap	Klinekill	<1.0	S	2012	115	115
NYSEG		Wethersfield	Meyer	-31.50	S	2013	230	230
NYSEG (5)		Wethersfield	South Perry	11.50	S	2013	230	230
NYSEG (5)		South Perry	Meyer	20.00	S	2013	230	230
NYSEG		South Perry	South Perry	xfm r	S	2013	230/115	230/115
NYSEG		Watercure Road	Watercure Road	xfm r	S	2013	345/230	345/230
NYSEG (5)		BPS Station	Rochester	3.80	W	2013	345	345
NYSEG		Auburn New 345/115 kV Sub	Auburn New 345/115 kV Sub	xfm r	W	2016	345/115	345/115
NYSEG		Auburn New 345/115 kV Sub	State Street	15.00	W	2016	115	115
NGRID		Greenbush	Hudson	-26.43	S	2012	115	115
NGRID (5)		Greenbush	Klinekill Tap	20.30	S	2012	115	115
NGRID (5)		Klinekill Tap	Hudson	6.13	S	2012	115	115
NGRID		Lockport	Mortimer	56.18	S	2014	115	115

Gold Book Updates – Transmission – Highlighted not included

Queue Pos.	Transmission Owner	Terminals	Line Length miles (1)	Expected Service Date/Yr		Nominal Voltage in kV		
				Prior to (2)	Year	Operating	Design	
<u>Firm Plans (included in 2011 Base Cases)</u>								
O & R	Ramapo	Sugarloaf	16.00	W	2011	138	138	
O & R	Hillburn	Sloatsburg	3.00	S	2011	69	69	
O & R	Harriman	-	-	S	2011	69	69	
O & R	Snake Hill	-	-	W	2012	138	138	
O & R	Hartley	-	-	W	2012	69	69	
O & R	East Walkill	-	-	S	2012	69	69	
O & R	Montvale (PJM)	-	-	S	2013	69	69	
O & R	Little Tor	-	-	W	2013	138	138	
O & R	Tappan	-	-	W	2013	69	69	
O & R	O&R's Line 26	Sterling Forest	xmfr	W	2014	138/69	138/69	
O & R	New Hempstead	-	-	W	2014	138	138	
O & R	Hillburn	Pomona	7	W	2016	138	138	
O & R	Sugarloaf	Shoemaker	7.00	W	2016/17	69	138	
O & R	ConEd's Line Y94	Lovett	xmfr	S	2017	345/138	345/138	
O & R	Lovett	West Nyack	12.80	W	2018	138	138	
O & R	Pomona	West Haverstraw	5	W	2018	138	138	
O & R	Burns	Nanuet	2.6	W	2019	69	69	
RGE	Station 135	Station 424	4.98	W	2011	115	115	
RGE	Station 13A	Station 135	3.17	W	2011	115	115	
RGE	Station 180	Station 180	Cap Bank	S	2011	115	115	
RGE	Station 128	Station 128	Cap Bank	S	2011	115	115	
RGE	Station 42	Station 124	Phase Shifter	W	2012	115	115	
RGE	Station 67	Station 418	3.50	W	2012	115	115	
RGE	Station 124	Station 124	Phase Shifter	S	2013	115	115	
RGE	Station 124	Station 124	SVC	S	2013	115	115	
RGE	Bulk Power System (BPS) Station	Rochester, NY	New Station	W	2013	345/115	345/115	
RGE	NYPA SR 1-39 345kV Line	Rochester, NY	xmfr	W	2013	345/115	345/115	
RGE	NYPA NR-2 345kV Line	Rochester, NY	xmfr	W	2013	345/115	345/115	
RGE	BPS Station	Station 418	TBD	W	2013	115	115	
RGE	BPS Station	Station 23	TBD	W	2013	115	115	

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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