

2014 Preliminary CARIS 2 Base Case Results

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Electric System Planning Working Group June 30, 2014 KCC



NYCA Generation Updates

- Removed for CARIS Phase 2
 - Ravenswood GT 7, 22MW (03/13/2014)
 - RG&E Station 9, 19MW (03/03/2014)
 - Trigen Syracuse 1&2, 101.6MW (09/25/2013)
 - Chateaugay Power Biomass, 19.7MW (06/03/2013)
 - Freeport 1-1, 2.1MW (5/1/2013)
 - Montauk 2, 3 & 4, 6MW (05/04/2013)



NYCA Generation Updates

- Retained for CARIS Phase 2
 - Cayuga (trans. solution not firmed)
 - Selkirk (reliability need, no definitive trans. solution identified)
 - Ravenswood GT 3-4 retirement (2014 RNA)
- Returned to service
 - Niagara Biomass, 51 MW (01/23/2014)
 - Astoria GT 10 & 11, 64 MW (06/07/2013)
- Addition
 - Taylor Biomass, 19 MW (12/01/2015)



NYCA Transmission Updates

- TOTS included in the base case
 - In service in 2016
 - Impact on UPNY-SENY secured by updated contingencies
 - 150 MW derate on Central East voltage limit
 - Staten Island Unbottling
- Athens SPS removal
 - June 1, 2024



20-Year Representative System

- Target Reserve Proxy (for NYCA and all localities)
 - Determine the ICL ("Installed Capacity Level") with as-found system when NYCA LOLE reaches 0.1.
 - ICL is the ICAP to PEAK LOAD ratio
 - Determine the excess capacity assumed in the latest Demand Curve Reset (DCR).
 - 210 MW
 - Target reserve = ICL*Peak Load + Excess
 - Example (for NYCA):
 - *ICL* = 115%
 - Peak Load = 35,000 MW
 - Target reserve = 1.15*35,000 + 210 = 40,460 MW



20-Year Representative System

- Add capacity to meet the Target Reserve Proxy in the following order:
 - Market-Based Solutions (2012 CRP)
 - Reliability-Backstop Solutions (2012 CRP) none available due to inclusion of TOTS in base case
 - Renewable Resources (wind-upstate; distributed solar-in J and K)
 - Generic Combined Cycle/Gas Turbine
- Block Size and economic parameters from DCR
- Location (retirement, interconnection, reliability studies)
- CC/GT: representative resource mix



Economic Margin Additions by Zone

Year	А	В	С	D	Ε	F	G	Н	I	J	К	Total	
2014													1
2015													1
2016											210 @ Barrett	210	1
2017													1
2018										500 @ Astoria *		500	I
2019													MBS
2020													I
2021											210 @ Holbrook	210	Renewable
2022							310 @ Rock Tavern					310	I
2023										500 @ Astoria **		710	Generic CC
2025										210 @ W49th St.		/10	I
2024													Generic GT
2025		1500 ***	k		_					24 ***	201 ***	1,725	1
2026										210 @ Gowanus	310 @ Ruland Road	520	l
2027													1
2028										210 @ Astoria		210	1
2029	310 @ Dunkirk											310	1
2030			310 @ Watercure									310	1
2031										210 @ Astoria		210	
2032		310 @ Russell										310	l
Gran	d Total											5,535	

* Approx. 100MWs of Astoria GTs retired.

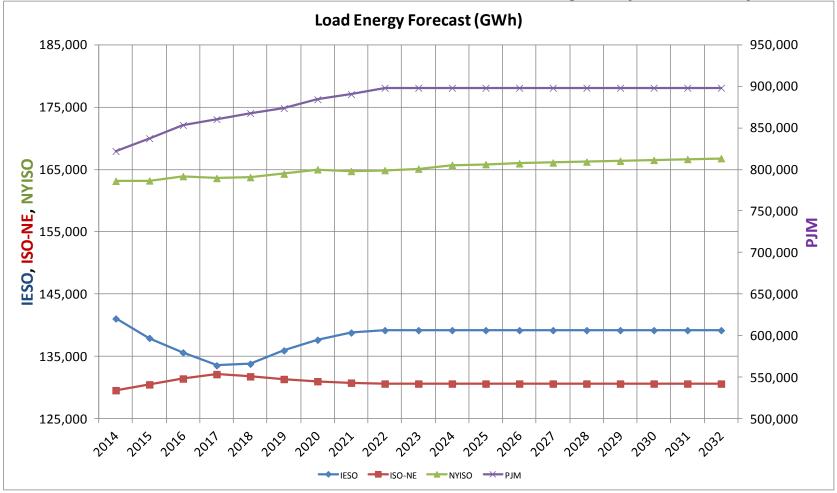
** Approx. 495MWs of Astoria GTs retired.

*** Renewable capacity shown is nameplate. Summer capacity value is assumed to be 10% for wind and 30% for solar.



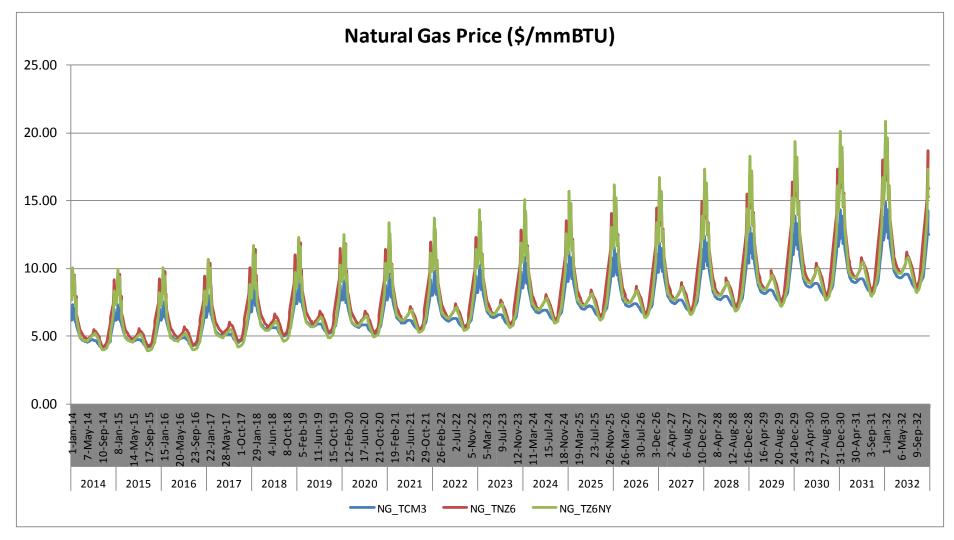
Baseline Load Forecast Updates

External loads are frozen after the first 10-year (2013-2022)





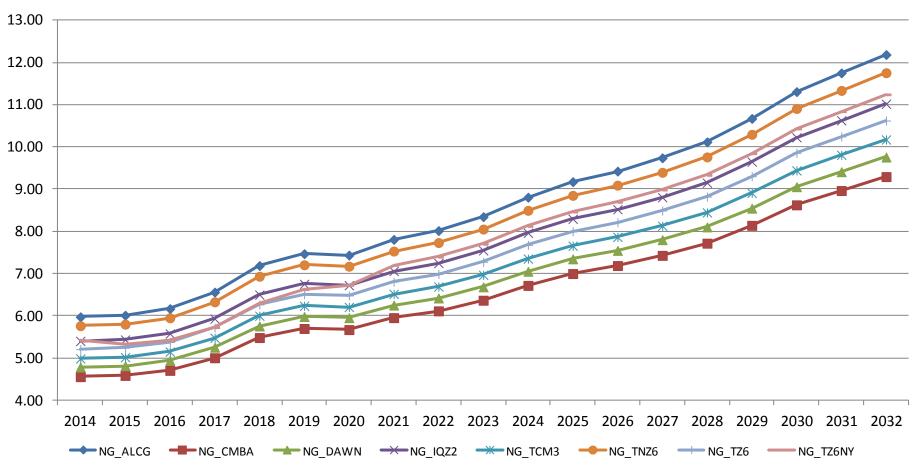
Natural Gas Forecast Updates





Natural Gas Forecast Updates

Annual Average Natural Gas Price (\$/mmBTU)





Commitment Hurdle Rate Updates

Commitment Hurdle Rate		Export (fr	om l	NYCA)		Import (ii	nto l	NYCA)
	<u>2013</u>	<u>3 CARIS 1</u>	<u>201</u>	4 CARIS 2	<u>201</u>	3 CARIS 1	<u>201</u>	L4 CARIS 2
PJM	\$	4.0	\$	10.0	\$	4.0	\$	4.0
Linden VFT	\$	4.0	\$	10.0	\$	4.0	\$	3.8
Neptune	\$	4.0	\$	10.0	\$	4.0	\$	3.6
НТР	\$	4.0	\$	10.0	\$	4.0	\$	4.0
ISONE	\$	3.0	\$	3.0	\$	3.0	\$	3.0
Cross Sound Cable	\$	3.0	\$	2.2	\$	3.0	\$	2.2
Northport Norwalk Cable	\$	3.0	\$	2.5	\$	3.0	\$	2.5
IMO	\$	4.0	\$	6.0	\$	4.0	\$	11.5



Dispatch Hurdle Rate Updates*

Dispatch Hurdle Rate		Export (fr	om	NYCA)		Import (ir	nto M	NYCA)
	2013	3 CARIS 1	<u>201</u>	4 CARIS 2	<u>201</u>	3 CARIS 1	<u>201</u>	4 CARIS 2
PJM	\$	2.0	\$	8.0	\$	2.0	\$	2.0
Linden VFT	\$	2.0	\$	8.0	\$	2.0	\$	1.8
Neptune	\$	2.0	\$	8.0	\$	2.0	\$	1.6
НТР	\$	2.0	\$	8.0	\$	2.0	\$	2.0
ISONE	\$	1.0	\$	1.0	\$	1.0	\$	1.0
Cross Sound Cable	\$	1.0	\$	0.2	\$	1.0	\$	0.2
Northport Norwalk Cable	\$	1.0	\$	0.5	\$	1.0	\$	0.5
IMO	\$	2.0	\$	4.0	\$	2.0	\$	9.5

*Dispatch Hurdle Rate = Commitment Hurdle Rate - \$2.0

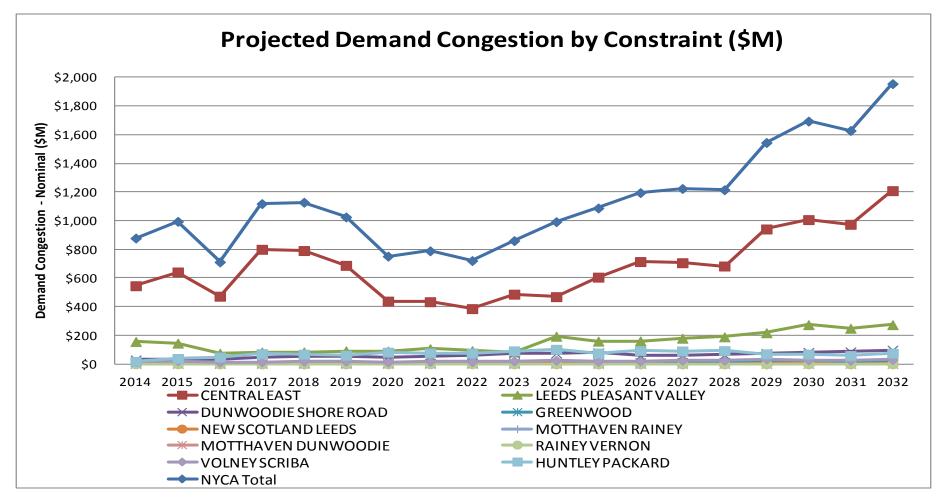


Projected Demand Congestion by Constraint (\$M)

Demand Congestion (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
CENTRAL EAST	\$545	\$641	\$472	\$799	\$790	\$687	\$437	\$433	\$385	\$486	\$469	\$605	\$714	\$705	\$682	\$941	\$1,006	\$974	\$1,208
LEEDS PLEASANT VALLEY	\$156	\$144	\$73	\$82	\$83	\$91	\$89	\$106	\$91	\$83	\$192	\$158	\$159	\$178	\$188	\$217	\$273	\$248	\$273
DUNWOODIE SHORE ROAD	\$29	\$31	\$34	\$45	\$55	\$56	\$48	\$55	\$59	\$73	\$73	\$80	\$58	\$61	\$63	\$75	\$82	\$85	\$97
GREENWOOD	\$2	\$3	\$3	\$4	\$5	\$6	\$5	\$6	\$7	\$8	\$9	\$10	\$11	\$12	\$12	\$15	\$16	\$17	\$18
NEW SCOTLAND LEEDS	\$2	\$2	\$0	\$0	\$0	\$0	\$1	\$3	\$3	\$0	\$2	\$0	\$0	\$0	\$0	\$0	\$1	\$0	\$1
MOTTHAVEN RAINEY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
MOTTHAVEN DUNWOODIE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RAINEY VERNON	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
VOLNEY SCRIBA	\$15	\$21	\$11	\$14	\$18	\$18	\$12	\$17	\$15	\$19	\$24	\$16	\$19	\$24	\$24	\$34	\$26	\$24	\$29
HUNTLEY PACKARD	\$16	\$37	\$47	\$70	\$67	\$60	\$81	\$76	\$75	\$90	\$101	\$75	\$92	\$89	\$91	\$69	\$67	\$58	\$74
NYCA Total	\$878	\$994	\$711	\$1,118	\$1,128	\$1,025	\$751	\$789	\$720	\$860	\$992	\$1,087	\$1,195	\$1,224	\$1,215	\$1,545	\$1,694	\$1,628	\$1,956



Projected Demand Congestion by Constraint (\$M)



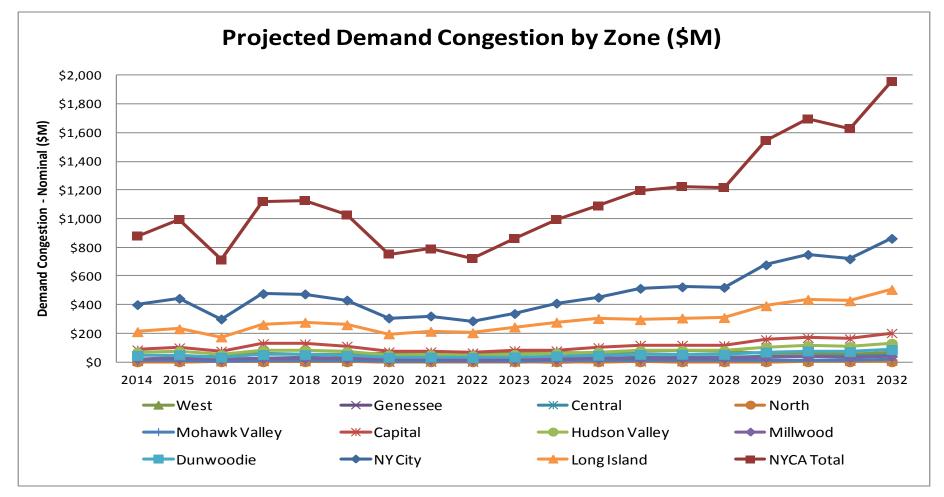


Projected Demand Congestion by Zone (\$M)

Demand Congestion (M\$)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$19	\$34	\$38	\$58	\$55	\$49	\$58	\$57	\$55	\$66	\$69	\$61	\$76	\$78	\$75	\$60	\$60	\$53	\$67
Genessee	\$5	\$6	\$3	\$5	\$5	\$4	\$1	\$1	\$1	\$1	\$0	\$3	\$3	\$3	\$3	\$7	\$8	\$8	\$9
Central	\$21	\$27	\$18	\$28	\$29	\$27	\$21	\$23	\$21	\$26	\$30	\$27	\$29	\$31	\$31	\$41	\$38	\$37	\$44
North	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Mohawk Valley	\$8	\$9	\$5	\$9	\$9	\$8	\$6	\$6	\$6	\$7	\$8	\$8	\$9	\$9	\$9	\$12	\$12	\$12	\$14
Capital	\$85	\$99	\$76	\$128	\$127	\$111	\$71	\$71	\$64	\$80	\$79	\$101	\$118	\$118	\$114	\$156	\$167	\$163	\$201
Hudson Valley	\$67	\$75	\$50	\$80	\$80	\$71	\$48	\$50	\$44	\$52	\$61	\$69	\$78	\$79	\$78	\$102	\$112	\$106	\$129
Millwood	\$21	\$23	\$15	\$24	\$24	\$21	\$15	\$15	\$14	\$16	\$19	\$21	\$24	\$25	\$24	\$32	\$35	\$33	\$40
Dunwoodie	\$44	\$48	\$32	\$50	\$50	\$44	\$31	\$32	\$29	\$33	\$41	\$45	\$51	\$52	\$52	\$67	\$75	\$71	\$86
NY City	\$399	\$443	\$299	\$476	\$474	\$431	\$306	\$320	\$286	\$337	\$409	\$450	\$513	\$523	\$520	\$677	\$749	\$718	\$862
Long Island	\$210	\$230	\$174	\$261	\$276	\$259	\$195	\$213	\$203	\$243	\$276	\$302	\$294	\$306	\$309	\$391	\$436	\$426	\$505
NYCA Total	\$878	\$994	\$711	\$1,118	\$1,128	\$1,025	\$751	\$789	\$720	\$860	\$992	\$1,087	\$1,195	\$1,224	\$1,215	\$1,545	\$1,694	\$1,628	\$1,956



Projected Demand Congestion by Zone (\$M)





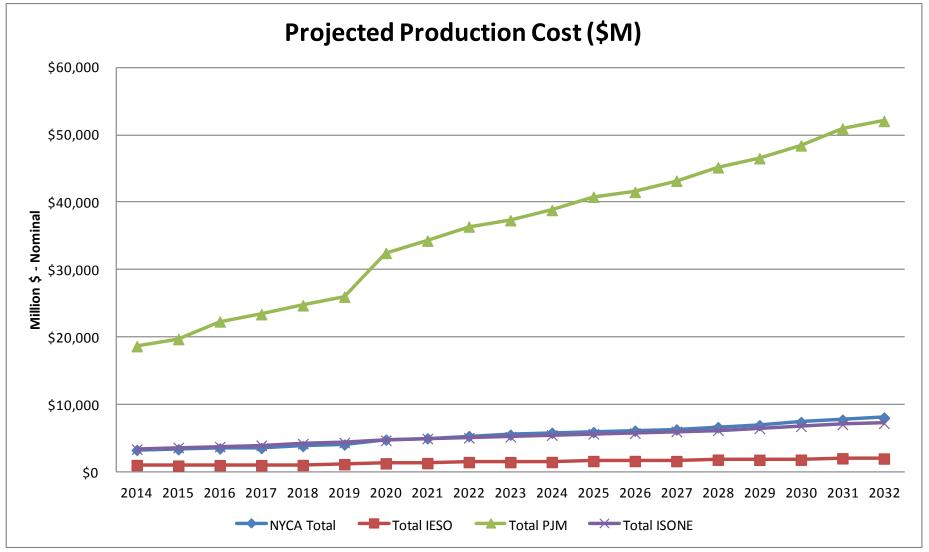
Projected Production Costs (\$M)

Production Cost (M\$)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$272	\$230	\$209	\$199	\$228	\$263	\$346	\$367	\$391	\$393	\$415	\$418	\$408	\$401	\$443	\$597	\$636	\$696	\$677
Genessee	\$41	\$44	\$47	\$45	\$48	\$48	\$59	\$63	\$65	\$63	\$68	\$64	\$65	\$70	\$71	\$68	\$70	\$69	\$204
Central	\$424	\$421	\$425	\$393	\$403	\$447	\$583	\$621	\$651	\$649	\$677	\$663	\$645	\$675	\$703	\$677	\$863	\$905	\$888
North	\$13	\$13	\$19	\$17	\$13	\$16	\$38	\$33	\$44	\$38	\$34	\$31	\$36	\$29	\$35	\$30	\$22	\$25	\$25
Mohawk Valley	\$26	\$25	\$31	\$26	\$25	\$28	\$41	\$43	\$48	\$44	\$47	\$41	\$43	\$42	\$49	\$41	\$41	\$40	\$40
Capital	\$705	\$747	\$779	\$821	\$862	\$895	\$1,076	\$1,129	\$1,166	\$1,197	\$1,251	\$1,285	\$1,322	\$1,367	\$1,424	\$1,473	\$1,526	\$1,590	\$1,634
Hudson Valley	\$29	\$28	\$28	\$27	\$27	\$30	\$44	\$47	\$156	\$147	\$153	\$159	\$157	\$160	\$172	\$162	\$168	\$173	\$170
Millwood	\$112	\$114	\$119	\$120	\$123	\$127	\$129	\$133	\$136	\$140	\$142	\$146	\$149	\$153	\$157	\$161	\$163	\$168	\$172
Dunwoodie	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NY City	\$1,221	\$1,286	\$1,353	\$1,396	\$1,574	\$1,649	\$1,843	\$1,900	\$1,986	\$2,149	\$2,282	\$2,344	\$2,427	\$2,501	\$2,646	\$2,731	\$2,869	\$2,997	\$3,134
Long Island	\$423	\$453	\$475	\$503	\$538	\$557	\$624	\$650	\$680	\$699	\$738	\$760	\$873	\$909	\$952	\$995	\$1,045	\$1,093	\$1,129
NYCA Total	\$3,267	\$3,360	\$3,484	\$3,547	\$3,840	\$4,059	\$4,785	\$4,986	\$5,322	\$5,518	\$5,808	\$5,911	\$6,123	\$6,305	\$6,651	\$6,936	\$7,403	\$7,754	\$8,073
NYCA Imports	\$1,358	\$1,342	\$1,569	\$1,686	\$1,875	\$1,965	\$1,614	\$1,698	\$1,760	\$1,788	\$1,959	\$1,875	\$1,894	\$1,937	\$2,087	\$2,157	\$2,296	\$2,381	\$2,504
NYCA Exports	\$287	\$399	\$440	\$579	\$647	\$648	\$558	\$585	\$614	\$746	\$765	\$889	\$914	\$946	\$971	\$1,159	\$1,247	\$1,340	\$1,460
NYCA + Imports - Exports	\$4,338	\$4,302	\$4,613	\$4,655	\$5,068	\$5,377	\$5,840	\$6,099	\$6,467	\$6,561	\$7,002	\$6,897	\$7,104	\$7,296	\$7,767	\$7,933	\$8,453	\$8,795	\$9,117
Total IESO	\$1,0 19	\$934	\$1,004	\$1,005	\$1,028	\$1,151	\$1,277	\$1,310	\$1,462	\$1,457	\$1,475	\$1,618	\$1,621	\$1,6 13	\$1,8 15	\$1,799	\$1,811	\$2,021	\$1,988
Total PJM	\$18,648	\$19,701	\$22,310	\$23,390	\$24,706	\$25,984	\$32,480	\$34,293	\$36,387	\$37,323	\$38,842	\$40,797	\$41,524	\$43,182	\$45,168	\$46,521	\$48,415	\$50,916	\$52,038
Total ISONE	\$3,378	\$3,633	\$3,767	\$3,954	\$4,196	\$4,360	\$4,679	\$4,954	\$5,067	\$5,225	\$5,468	\$5,662	\$5,758	\$6,020	\$6,190	\$6,468	\$6,772	\$7,053	\$7,223
Total System	\$26,313	\$27,627	\$30,566	\$31,896	\$33,769	\$35,555	\$43,222	\$45,543	\$48,238	\$49,524	\$51,592	\$53,989	\$55,026	\$57,119	\$59,824	\$61,724	\$64,402	\$67,745	\$69,322

DRAFT – FOR DISCUSSION PURPOSES ONLY 17



Projected Production Costs (\$M)





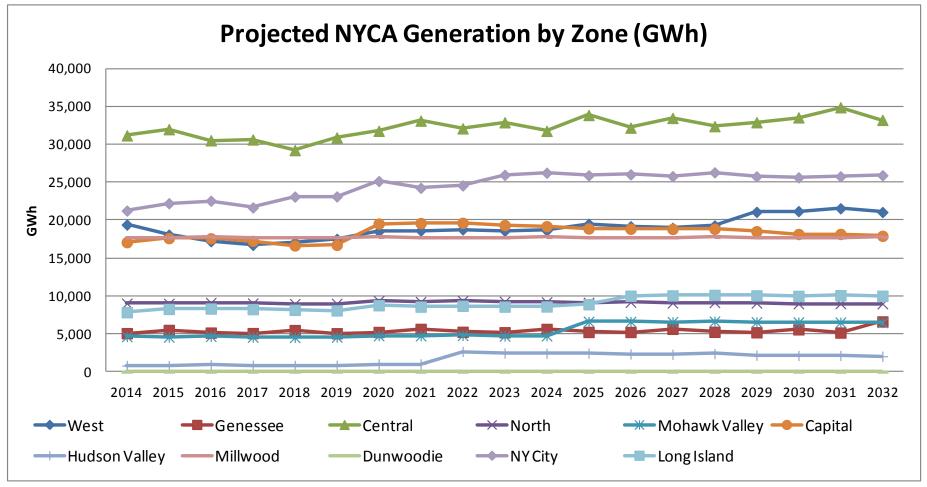
Projected Generation by Zone (GWh)

Generation (GWh)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	19,397	18,072	17,206	16,725	17,069	17,510	18,517	18,622	18,767	18,593	18,639	19,497	19,175	18,967	19,284	21,080	21,173	21,549	21,053
Genessee	5,076	5,500	5,148	5,082	5,482	5,066	5,232	5,638	5,253	5,195	5,635	5,236	5,232	5,649	5,254	5,192	5,581	5,156	6,622
Central	31,167	31,986	30,521	30,630	29,223	30,892	31,774	33,114	32,098	32,898	31,763	33,856	32,188	33,470	32,386	32,904	33,541	34,877	33,211
North	9,019	8,997	9,107	9,034	8,960	8,993	9,346	9,230	9,365	9,255	9,189	9,132	9,175	9,077	9,137	9,070	8,975	8,991	8,979
Mohawk Valley	4,635	4,580	4,671	4,561	4,527	4,571	4,755	4,745	4,791	4,717	4,741	6,620	6,608	6,578	6,640	6,559	6,538	6,520	6,490
Capital	17,080	17,614	17,584	17,246	16,652	16,729	19,529	19,595	19,628	19,327	19,186	18,889	18,850	18,824	18,849	18,519	18,156	18,161	17,915
Hudson Valley	803	783	888	852	820	845	1,016	1,016	2,662	2,460	2,433	2,438	2,340	2,297	2,383	2,175	2,131	2,134	2,032
Millwood	17,720	17,708	17,772	17,708	17,723	17,706	17,772	17,708	17,723	17,708	17,770	17,706	17,723	17,708	17,772	17,708	17,720	17,706	17,773
Dunwoodie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NYCity	21,245	22,217	22,548	21,655	23,094	23,113	25,141	24,244	24,563	25,959	26,238	25,892	26,023	25,786	26,290	25,759	25,633	25,763	25,908
Long Island	7,838	8,273	8,323	8,251	8,154	8,081	8,762	8,578	8,692	8,577	8,598	8,891	10,011	10,054	10,119	10,056	9,996	10,078	10,008
NYCA Total	133,981	135,730	133,768	131,743	131,704	133,504	141,843	142,490	143,541	144,690	144,190	148,155	147,326	148,411	148,115	149,022	149,443	150,934	149,991
Total IESO	145,210	145,535	144,190	144,351	144,252	144,417	147,633	147,726	147,459	148,608	148,449	147,355	148,877	148,328	148,096	148,989	148,657	147,928	149,066
Total PJM	838,496	851,064	879,231	887,878	895,024	900,586	897,274	903,078	909,764	909,296	910,142	907,869	907,942	907,687	907,625	907,134	907,048	906,205	906,896
Total ISONE	115,102	113,791	113,956	112,708	111,953	111,888	115,692	115,738	115,883	114,674	114,816	114,189	113,771	113,784	113,937	113,003	112,906	112,875	112,427
Total HQ *	18,767	18,776	18,852	18,809	18,827	18,839	18,844	18,785	18,791	18,809	18,897	18,767	18,776	18,785	18,847	18,827	18,839	18,767	18,844
Total System	1,251,555	1,264,895	1,289,998	1,295,489	1,301,759	1,309,235	1,321,285	1,327,817	1,335,438	1,336,076	1,336,495	1,336,334	1,336,691	1,336,995	1,336,619	1,336,974	1,336,892	1,336,709	1,337,225

* Only interchange flow is modeled.



Projected NYCA Generation by Zone (GWh)



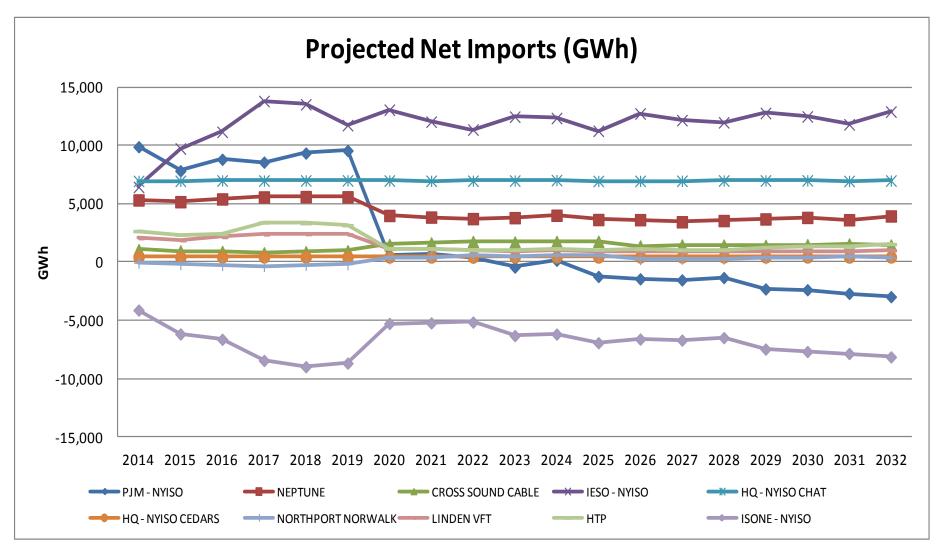


Projected NYCA Net Imports (GWh)

NET IMPORTS (GWh)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
PJM - NYISO	9,885	7,826	8,810	8,565	9,343	9,563	597	705	412	-429	153	-1,234	-1,438	-1,531	-1,331	-2,306	-2,372	-2,686	-2,966
NEPTUNE	5,324	5,174	5,410	5,581	5,610	5,592	3,994	3,854	3,724	3,805	4,011	3,646	3,633	3,454	3,557	3,695	3,825	3,626	3,952
CROSS SOUND CABLE	1,069	959	914	796	882	973	1,508	1,640	1,767	1,725	1,770	1,784	1,385	1,465	1,453	1,432	1,486	1,552	1,464
IESO - NYISO	6,443	9,734	11,164	13,806	13,523	11,737	13,062	12,033	11,359	12,463	12,347	11,255	12,739	12,164	11,978	12,776	12,482	11,803	12,897
HQ - NYISO CHAT	6,954	6,961	6,994	6,984	6,996	7,001	6,987	6,966	6,971	6,984	7,025	6,951	6,958	6,966	6,990	6,996	7,001	6,951	6,987
HQ - NYISO CEDARS	434	436	438	438	439	439	437	437	437	438	440	434	436	437	438	439	439	434	438
NORTHPORT NORWALK	-52	-163	-243	-330	-230	-184	328	413	551	524	543	587	257	289	300	326	381	432	390
LINDEN VFT	2,051	1,871	2,146	2,374	2,397	2,365	1,168	1,095	987	954	1,057	900	943	870	904	953	959	920	1,017
HTP	2,655	2,347	2,411	3,393	3,333	3,160	1,166	1,132	1,041	1,043	1,156	1,055	1,109	1,043	1,064	1,277	1,333	1,302	1,544
ISONE - NYISO	-4,117	-6,164	-6,620	-8,434	-8,972	-8,664	-5,261	-5,218	-5,148	-6,302	-6,177	-6,919	-6,602	-6,691	-6,480	-7,461	-7,672	-7,839	-8,130
TOTAL	30,647	28,983	31,426	33,172	33,320	31,982	23,987	23,057	22,100	21,205	22,326	18,459	19,421	18,466	18,874	18,128	17,863	16,495	17,592



Projected NYCA Net Imports (GWh)



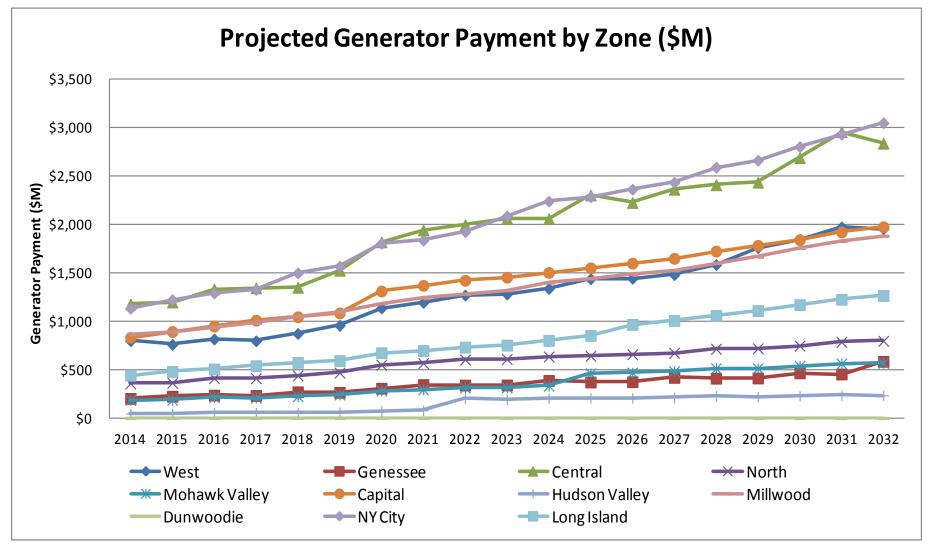


Projected Generator Payments (\$M)

Generator Payment (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$798	\$760	\$815	\$797	\$873	\$957	\$1,136	\$1,194	\$1,269	\$1,280	\$1,338	\$1,438	\$1,443	\$1,480	\$1,584	\$1,760	\$1,846	\$1,973	\$1,956
Genessee	\$202	\$224	\$236	\$232	\$270	\$264	\$307	\$344	\$340	\$341	\$387	\$371	\$374	\$419	\$411	\$413	\$465	\$454	\$584
Central	\$1,177	\$1,198	\$1,332	\$1,343	\$1,349	\$1,525	\$1,819	\$1,942	\$1,996	\$2,061	\$2,060	\$2,303	\$2,226	\$2,362	\$2,409	\$2,435	\$2,690	\$2,956	\$2,837
North	\$358	\$364	\$412	\$411	\$438	\$468	\$549	\$566	\$604	\$609	\$635	\$642	\$658	\$673	\$714	\$720	\$747	\$786	\$796
Mohawk Valley	\$186	\$187	\$214	\$209	\$224	\$241	\$283	\$295	\$313	\$315	\$333	\$460	\$469	\$482	\$514	\$514	\$538	\$563	\$569
Capital	\$832	\$893	\$949	\$1,010	\$1,045	\$1,085	\$1,311	\$1,369	\$1,422	\$1,454	\$1,503	\$1,551	\$1,599	\$1,648	\$1,724	\$1,783	\$1,841	\$1,921	\$1,975
Hudson Valley	\$45	\$45	\$52	\$53	\$54	\$59	\$75	\$79	\$201	\$192	\$202	\$208	\$207	\$212	\$228	\$219	\$228	\$236	\$234
Millwood	\$866	\$888	\$935	\$983	\$1,047	\$1,093	\$1,186	\$1,238	\$1,280	\$1,320	\$1,399	\$1,440	\$1,481	\$1,526	\$1,601	\$1,666	\$1,757	\$1,828	\$1,883
Dunwoodie	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NY City	\$1,134	\$1,221	\$1,291	\$1,327	\$1,498	\$1,567	\$1,804	\$1,836	\$1,925	\$2,087	\$2,240	\$2,285	\$2,363	\$2,434	\$2,590	\$2,662	\$2,803	\$2,932	\$3,049
Long Island	\$442	\$480	\$506	\$540	\$573	\$592	\$674	\$697	\$732	\$752	\$800	\$853	\$967	\$1,007	\$1,058	\$1,109	\$1,170	\$1,226	\$1,266
NYCA Total	\$6,038	\$6,260	\$6,742	\$6,905	\$7,373	\$7,851	\$9,144	\$9,560	\$10,080	\$10,410	\$10,897	\$11,551	\$11,786	\$12,244	\$12,833	\$13,280	\$14,086	\$14,876	\$15,150



Projected Generator Payments (\$M)



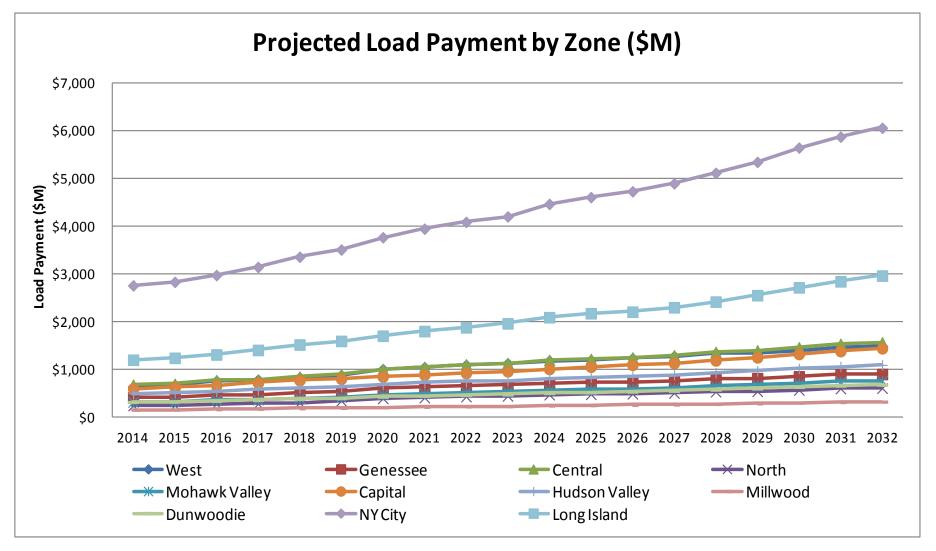


Projected Load Payments (\$M)

Load Payment (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$635	\$666	\$754	\$777	\$827	\$873	\$997	\$1,038	\$1,087	\$1,119	\$1,177	\$1,191	\$1,228	\$1,273	\$1,334	\$1,332	\$1,391	\$1,453	\$1,485
Genessee	\$404	\$412	\$462	\$465	\$500	\$532	\$597	\$621	\$654	\$667	\$700	\$715	\$729	\$755	\$796	\$810	\$848	\$891	\$897
Central	\$672	\$691	\$766	\$780	\$842	\$893	\$1,002	\$1,046	\$1,100	\$1,128	\$1,193	\$1,213	\$1,244	\$1,289	\$1,361	\$1,393	\$1,458	\$1,531	\$1,562
North	\$239	\$244	\$273	\$275	\$296	\$337	\$388	\$405	\$425	\$440	\$465	\$474	\$484	\$501	\$528	\$537	\$564	\$594	\$603
Mohawk Valley	\$312	\$319	\$352	\$358	\$389	\$414	\$467	\$490	\$516	\$531	\$564	\$573	\$589	\$613	\$648	\$665	\$701	\$739	\$756
Capital	\$591	\$616	\$660	\$716	\$766	\$796	\$842	\$879	\$916	\$953	\$1,002	\$1,049	\$1,088	\$1,126	\$1,181	\$1,246	\$1,317	\$1,378	\$1,436
Hudson Valley	\$493	\$510	\$539	\$570	\$608	\$635	\$683	\$714	\$740	\$761	\$805	\$831	\$854	\$882	\$922	\$961	\$1,013	\$1,055	\$1,088
Millwood	\$147	\$151	\$159	\$167	\$178	\$186	\$200	\$209	\$216	\$222	\$236	\$243	\$249	\$258	\$269	\$281	\$296	\$308	\$318
Dunwoodie	\$311	\$318	\$334	\$352	\$375	\$392	\$422	\$440	\$457	\$469	\$498	\$514	\$527	\$545	\$569	\$594	\$627	\$652	\$673
NY City	\$2,755	\$2,829	\$2,972	\$3,142	\$3,356	\$3,507	\$3,765	\$3,945	\$4,087	\$4,201	\$4,464	\$4,607	\$4,729	\$4,896	\$5,116	\$5,345	\$5,645	\$5,875	\$6,061
Long Island	\$1,195	\$1,236	\$1,306	\$1,402	\$1,515	\$1,591	\$1,700	\$1,798	\$1,876	\$1,959	\$2,088	\$2,172	\$2,203	\$2,297	\$2,415	\$2,550	\$2,714	\$2,841	\$2,962
NYCA Total	\$7,755	\$7,992	\$8,578	\$9,003	\$9,652	\$ 10,155	\$ 11,062	\$ 11,586	\$12,075	\$ 12,451	\$ 13,192	\$ 13,581	\$13,924	\$ 14,434	\$15,141	\$15,713	\$16,575	\$ 17,316	\$ 17,839



Projected Load Payments (\$M)





Projected LBMPs (\$/MWh)

LBMP (\$/MWh)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$40.46	\$42.24	\$47.43	\$48.92	\$52.03	\$54.79	\$62.33	\$65.01	\$67.98	\$69.91	\$73.29	\$74.20	\$76.40	\$79.13	\$82.86	\$82.85	\$ 86.58	\$ 90.38	\$ 92.27
Genessee	\$40.47	\$41.24	\$45.92	\$46.44	\$49.85	\$52.90	\$59.36	\$61.96	\$65.09	\$66.41	\$69.66	\$71.22	\$72.75	\$75.25	\$79.28	\$80.70	\$ 84.62	\$ 88.80	\$ 89.65
Central	\$42.01	\$43.07	\$47.41	\$48.25	\$51.94	\$54.91	\$61.36	\$64.14	\$67.18	\$68.75	\$72.43	\$73.48	\$75.22	\$77.83	\$81.88	\$83.65	\$ 87.47	\$ 91.57	\$ 93.28
North	\$40.09	\$40.74	\$45.44	\$45.72	\$49.23	\$52.42	\$58.99	\$61.69	\$64.71	\$66.04	\$69.50	\$70.81	\$72.23	\$74.78	\$78.71	\$79.98	\$ 84.04	\$ 88.24	\$ 89.55
Mohawk Valley	\$42.14	\$42.98	\$47.34	\$48.00	\$51.71	\$54.79	\$61.22	\$64.04	\$67.09	\$68.56	\$72.20	\$73.07	\$74.71	\$77.31	\$81.32	\$83.03	\$ 87.17	\$ 91.36	\$ 93.01
Capital	\$48.53	\$50.25	\$53.23	\$57.37	\$61.00	\$63.16	\$66.67	\$69.52	\$72.07	\$74.57	\$78.03	\$81.15	\$83.77	\$86.36	\$90.21	\$94.60	\$ 99.62	\$103.70	\$107.55
Hudson Valley	\$48.61	\$49.94	\$52.58	\$55.48	\$59.19	\$61.79	\$66.66	\$69.81	\$72.42	\$74.46	\$78.57	\$81.14	\$83.34	\$86.13	\$90.09	\$93.76	\$ 98.90	\$103.04	\$106.14
Millwood	\$49.15	\$50.46	\$52.98	\$55.94	\$59.66	\$62.28	\$67.12	\$70.32	\$72.92	\$74.95	\$79.26	\$81.83	\$84.03	\$86.87	\$90.85	\$94.63	\$ 99.91	\$104.01	\$107.18
Dunwoodie	\$49.15	\$50.45	\$52.94	\$55.87	\$59.59	\$62.22	\$67.09	\$70.31	\$72.91	\$74.92	\$79.24	\$81.80	\$83.99	\$86.83	\$90.80	\$94.57	\$ 99.85	\$103.96	\$107.11
NY City	\$49.49	\$50.75	\$53.28	\$56.23	\$59.98	\$62.67	\$67.58	\$70.88	\$73.53	\$75.59	\$79.95	\$82.62	\$84.84	\$87.73	\$91.71	\$95.63	\$100.95	\$105.16	\$108.36
Long Island	\$51.28	\$52.68	\$55.34	\$58.99	\$63.35	\$66.08	\$70.42	\$74.14	\$76.97	\$79.76	\$84.17	\$87.18	\$88.07	\$91.16	\$95.28	\$99.90	\$105.71	\$110.08	\$113.90



Projected LBMPs (\$/MWh)

Projected LBMPs by Zone (\$/MWh) \$120 \$110 \$100 LBMP (\$/MWh) \$90 \$80 \$70 \$60 \$50 \$40 \$30 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 ----West ----Genessee ---- Central ----- North ----Capital Millwood Dunwoodie -----NY City Long Island

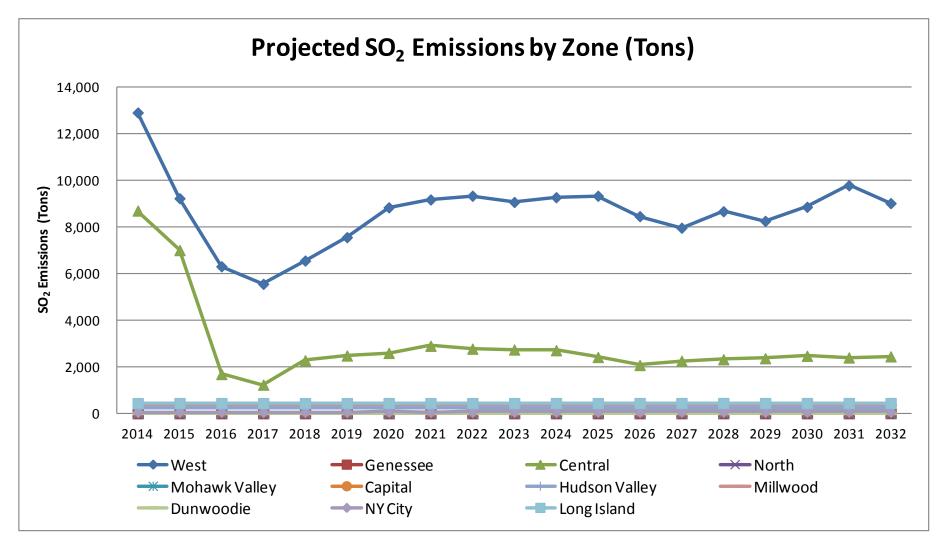


Projected SO₂ Emissions (Tons)

SO ₂ Emissions (Tons)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	12,909	9,228	6,307	5,552	6,552	7,556	8,836	9,174	9,334	9,067	9,272	9,334	8,458	7,961	8,669	8,255	8,859	9,782	9,017
Genessee	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Central	8,701	7,004	1,682	1,227	2,274	2,477	2,589	2,896	2,771	2,735	2,706	2,414	2,070	2,251	2,317	2,361	2,465	2,393	2,441
North	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1
Mohawk Valley	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Capital	360	361	362	360	360	359	365	364	364	364	365	363	363	363	364	363	362	362	363
Hudson Valley	225	228	229	228	227	227	229	228	232	233	239	232	232	232	233	235	239	237	239
Millwood	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356	356
Dunwoodie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY City	52	55	55	53	55	56	60	58	59	63	63	63	63	62	64	63	62	62	63
Long Island	430	432	433	432	431	431	434	432	433	432	434	432	434	435	436	435	434	435	436
NYCA Total	23,043	17,673	9,435	8,217	10,264	11,473	12,881	13,520	13,561	13,260	13,445	13,204	11,986	11,670	12,449	12,077	12,787	13,637	12,928



Projected SO₂ Emissions (Tons)



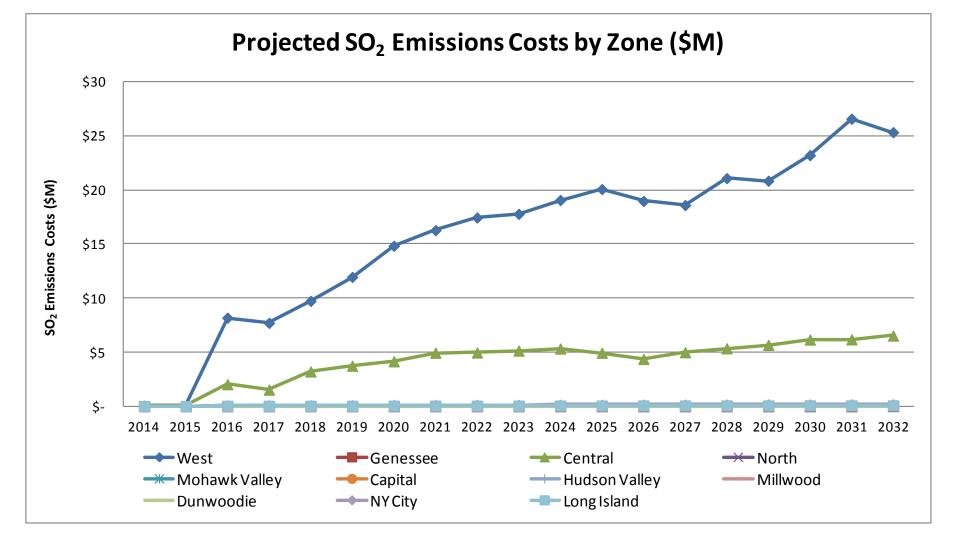


Projected SO₂ Emission Costs (\$M)

SO ₂ Emissions Costs (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$0.0	\$0.0	\$8.2	\$7.7	\$9.7	\$11.9	\$14.8	\$16.3	\$17.4	\$17.8	\$19.1	\$20.1	\$19.0	\$18.6	\$21.1	\$20.8	\$23.2	\$26.6	\$25.3
Genessee	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Central	\$0.0	\$0.0	\$2.0	\$1.5	\$3.2	\$3.7	\$4.2	\$4.9	\$5.0	\$5.1	\$5.3	\$4.9	\$4.4	\$5.0	\$5.3	\$5.7	\$6.2	\$6.2	\$6.5
North	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Mohawk Valley	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Capital	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
Hudson Valley	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Millwood	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Dunwoodie	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NY City	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2
Long Island	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
NYCA Total	\$0.1	\$0.1	\$10.3	\$9.4	\$13.1	\$15.8	\$19.2	\$21.4	\$22.6	\$23.1	\$24.6	\$25.2	\$23.6	\$23.9	\$26.7	\$26.8	\$29.7	\$33.1	\$32.2



Projected SO₂ Emission Costs (\$M)



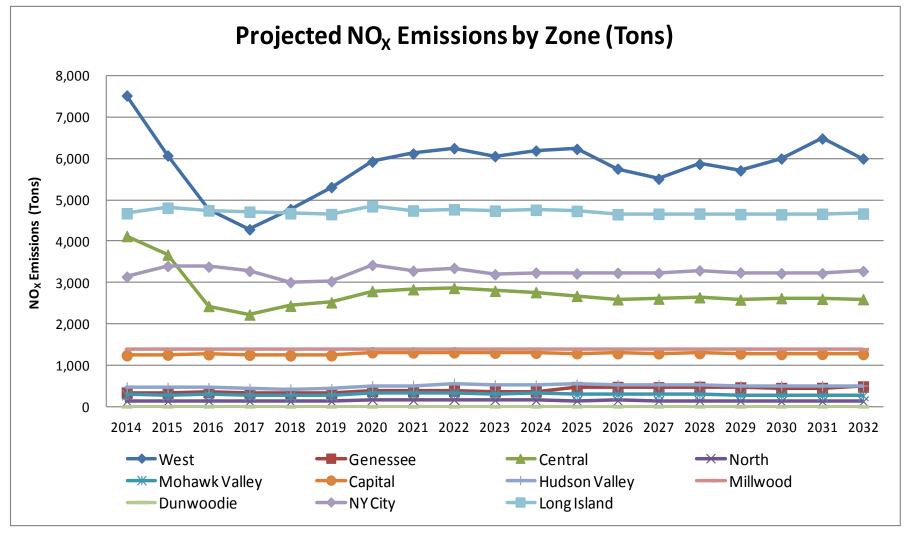


Projected NO_X Emissions (Tons)

NO _x Emissions (Tons)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	7,522	6,071	4,756	4,286	4,775	5,307	5,924	6,119	6,248	6,056	6,190	6,231	5,751	5,508	5,867	5,710	5,997	6,482	5,998
Genessee	337	335	351	337	329	334	376	370	384	368	367	470	470	463	473	460	447	448	483
Central	4,124	3,676	2,432	2,226	2,438	2,521	2,795	2,837	2,869	2,800	2,768	2,678	2,593	2,610	2,644	2,588	2,623	2,605	2,598
North	131	129	141	133	125	128	164	153	166	155	148	142	147	137	143	135	126	128	127
Mohawk Valley	287	275	298	271	257	270	318	319	331	310	316	292	295	288	303	279	272	267	265
Capital	1,241	1,255	1,264	1,253	1,238	1,239	1,313	1,309	1,311	1,303	1,301	1,289	1,290	1,288	1,293	1,282	1,271	1,273	1,270
Hudson Valley	474	464	457	439	424	431	501	508	557	522	521	539	535	534	515	500	506	506	507
Millwood	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391	1,391
Dunwoodie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NY City	3,141	3,397	3,383	3,278	3,007	3,029	3,423	3,283	3,351	3,198	3,238	3,217	3,234	3,231	3,292	3,243	3,223	3,222	3,276
Long Island	4,674	4,808	4,744	4,712	4,675	4,653	4,841	4,741	4,769	4,736	4,758	4,730	4,651	4,662	4,666	4,654	4,648	4,661	4,667
NYCA Total	23,323	21,801	19,217	18,326	18,661	19,303	21,047	21,030	21,378	20,840	20,999	20,978	20,357	20,113	20,587	20,244	20,504	20,983	20,583



Projected NO_X Emissions (Tons)



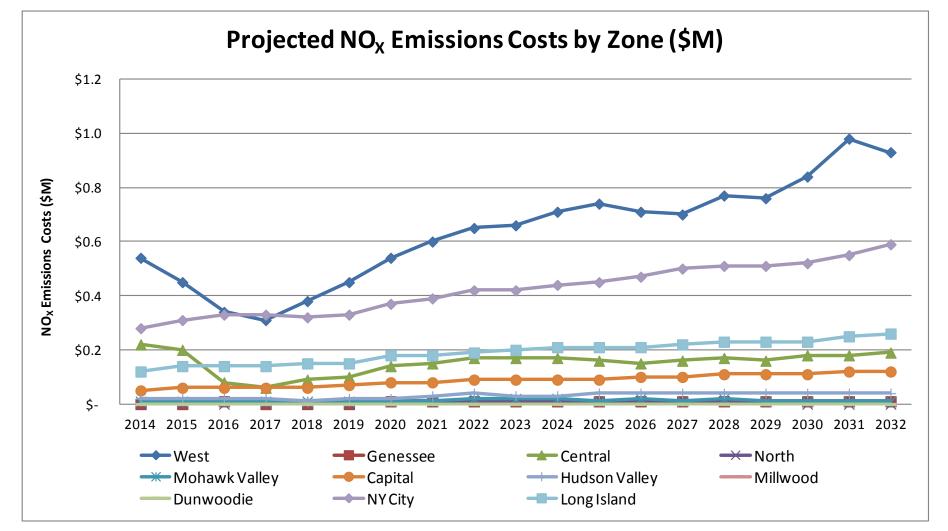


Projected NO_X Emission Costs (\$M)

NO _X Emissions Costs (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$0.5	\$0.4	\$0.3	\$0.3	\$0.4	\$0.4	\$0.5	\$0.6	\$0.6	\$0.7	\$0.7	\$0.7	\$0.7	\$0.7	\$0.8	\$0.8	\$0.8	\$1.0	\$0.9
Genessee	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Central	\$0.2	\$0.2	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2
North	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Mohawk Valley	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Capital	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1	\$0.1
Hudson Valley	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Millwood	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Dunwoodie	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NY City	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.3	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$0.4	\$0.5	\$0.5	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6
Long Island	\$0.1	\$0.1	\$0.1	\$0.1	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.2	\$0.3	\$0.3
NYCA Total	\$1.2	\$1.2	\$1.0	\$0.9	\$1.0	\$1.1	\$1.4	\$1.5	\$1.6	\$1.6	\$1.7	\$1.7	\$1.7	\$1.7	\$1.9	\$1.8	\$1.9	\$2.1	\$2.1



Projected NO_X Emission Costs (\$M)



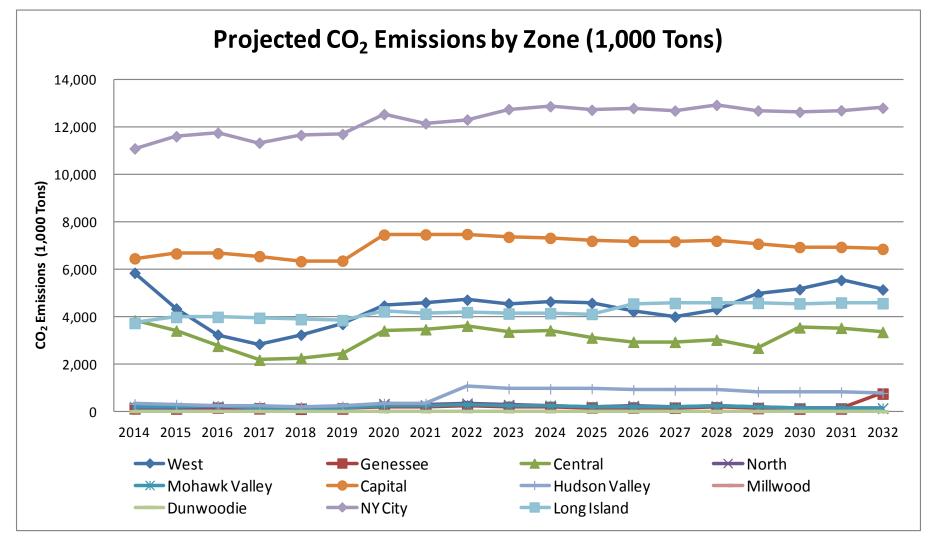


Projected CO₂ Emissions (1,000 Tons)

CO ₂ Emissions (1000 Tons)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	5,843	4,334	3,232	2,840	3,228	3,682	4,460	4,595	4,707	4,552	4,633	4,572	4,218	3,995	4,307	4,947	5,149	5,537	5,139
Genessee	118	114	149	120	103	113	190	185	210	180	178	156	154	146	159	133	110	114	743
Central	3,834	3,405	2,761	2,173	2,247	2,425	3,407	3,461	3,611	3,358	3,418	3,109	2,933	2,929	3,020	2,681	3,539	3,522	3,348
North	142	133	193	156	112	128	316	259	334	274	233	203	229	178	210	171	119	127	124
Mohawk Valley	186	162	211	150	130	152	249	252	275	236	245	194	200	188	216	164	151	141	134
Capital	6,454	6,660	6,667	6,546	6,331	6,356	7,454	7,464	7,479	7,362	7,317	7,191	7,183	7,173	7,194	7,070	6,931	6,934	6,852
Hudson Valley	309	283	241	219	196	214	327	326	1,059	958	947	955	913	896	923	830	816	812	770
Millwood	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dunwoodie	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NYCity	11,094	11,608	11,753	11,335	11,662	11,702	12,543	12,151	12,314	12,754	12,875	12,723	12,797	12,693	12,931	12,694	12,637	12,704	12,807
Long Island	3,725	3,979	3,982	3,942	3,886	3,845	4,214	4,117	4,181	4,121	4,136	4,106	4,545	4,568	4,598	4,573	4,551	4,588	4,561
NYCA Total	31,705	30,679	29,190	27,481	27,895	28,617	33,160	32,811	34,170	33,795	33,981	33,210	33,172	32,765	33,558	33,264	34,003	34,480	34,477



Projected CO₂ Emissions (1,000 Tons)





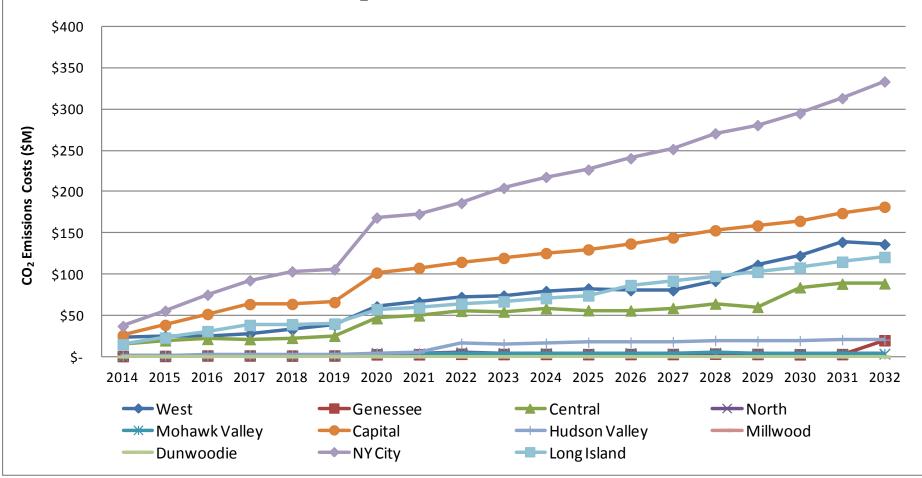
Projected CO₂ Emission Costs (\$M)

CO ₂ Emissions Costs (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	\$23.3	\$24.9	\$25.0	\$27.5	\$32.5	\$38.2	\$60.8	\$66.2	\$72.2	\$73.9	\$79.3	\$82.5	\$80.4	\$80.3	\$91.6	\$111.1	\$122.1	\$138.8	\$136.1
Genessee	\$0.5	\$0.6	\$1.1	\$1.2	\$1.0	\$1.2	\$2.6	\$2.7	\$3.2	\$2.9	\$3.0	\$2.8	\$2.9	\$2.9	\$3.4	\$3.0	\$2.6	\$2.9	\$19.7
Central	\$15.3	\$19.6	\$21.3	\$21.1	\$22.6	\$25.1	\$46.4	\$49.8	\$55.3	\$54.5	\$58.5	\$56.1	\$55.9	\$58.9	\$64.2	\$60.2	\$83.9	\$88.3	\$88.7
North	\$0.6	\$0.8	\$1.5	\$1.5	\$1.1	\$1.3	\$4.3	\$3.7	\$5.1	\$4.4	\$4.0	\$3.7	\$4.4	\$3.6	\$4.5	\$3.8	\$2.8	\$3.2	\$3.3
Mohawk Valley	\$0.7	\$0.9	\$1.6	\$1.5	\$1.3	\$1.6	\$3.4	\$3.6	\$4.2	\$3.8	\$4.2	\$3.5	\$3.8	\$3.8	\$4.6	\$3.7	\$3.6	\$3.5	\$3.5
Capital	\$25.7	\$38.3	\$51.5	\$63.5	\$63.7	\$65.9	\$101.6	\$107.5	\$114.7	\$119.5	\$125.3	\$129.8	\$136.9	\$144.2	\$152.9	\$158.8	\$164.4	\$173.8	\$181.5
Hudson Valley	\$1.2	\$1.6	\$1.9	\$2.1	\$2.0	\$2.2	\$4.5	\$4.7	\$16.2	\$15.6	\$16.2	\$17.2	\$17.4	\$18.0	\$19.6	\$18.6	\$19.4	\$20.4	\$20.4
Millwood	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Dunwoodie	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
NY City	\$36.9	\$55.5	\$74.8	\$92.3	\$103.2	\$105.7	\$168.4	\$172.7	\$186.1	\$204.4	\$217.6	\$226.6	\$240.4	\$251.5	\$270.5	\$280.5	\$294.8	\$313.2	\$333.4
Long Island	\$14.8	\$22.9	\$30.7	\$38.2	\$39.1	\$39.8	\$57.4	\$59.3	\$64.1	\$66.8	\$70.8	\$74.0	\$86.6	\$91.8	\$97.7	\$102.6	\$107.8	\$114.9	\$120.6
NYCA Total	\$118.9	\$165.1	\$209.4	\$248.9	\$266.4	\$281.0	\$449.3	\$470.2	\$521.1	\$545.8	\$579.0	\$596.3	\$628.6	\$655.0	\$708.9	\$742.3	\$801.4	\$858.9	\$907.2



Projected CO₂ Emission Costs (\$M)

Projected CO₂ Emissions Costs by Zone (\$M)



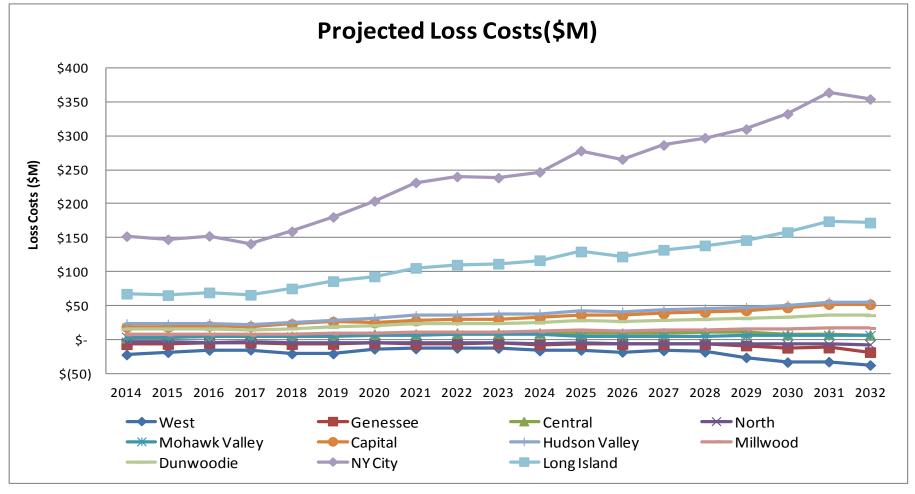


Projected Load Payments Loss Component (\$M)

Loss Costs (\$M)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
West	(\$22.3)	(\$18.9)	(\$15.5)	(\$15.2)	(\$20.8)	(\$20.8)	(\$13.8)	(\$13.4)	(\$12.5)	(\$12.7)	(\$16.4)	(\$15.5)	(\$18.4)	(\$16.3)	(\$18.2)	(\$26.4)	(\$33.3)	(\$32.8)	(\$37.7)
Genessee	(\$7.1)	(\$6.7)	(\$5.2)	(\$4.5)	(\$6.9)	(\$6.7)	(\$5.3)	(\$6.7)	(\$5.8)	(\$5.6)	(\$7.6)	(\$7.1)	(\$6.8)	(\$7.3)	(\$6.9)	(\$9.0)	(\$12.3)	(\$12.0)	(\$18.7)
Central	\$2.6	\$3.5	\$4.5	\$4.5	\$4.6	\$5.0	\$7.8	\$7.9	\$9.4	\$9.5	\$9.7	\$8.7	\$9.3	\$9.7	\$10.8	\$10.1	\$7.1	\$7.6	\$6.6
North	(\$3.7)	(\$3.8)	(\$4.2)	(\$4.0)	(\$4.9)	(\$4.7)	(\$5.3)	(\$5.3)	(\$5.7)	(\$5.5)	(\$5.9)	(\$5.5)	(\$6.1)	(\$5.9)	(\$6.4)	(\$6.6)	(\$7.2)	(\$7.0)	(\$7.4)
Mohawk Valley	\$3.7	\$3.6	\$3.9	\$3.7	\$4.3	\$5.0	\$5.7	\$6.4	\$6.9	\$7.2	\$7.6	\$4.3	\$4.2	\$4.7	\$5.0	\$5.4	\$5.4	\$6.2	\$6.3
Capital	\$18.3	\$18.4	\$20.0	\$19.2	\$22.7	\$26.1	\$24.8	\$27.7	\$29.1	\$30.2	\$32.0	\$36.5	\$35.5	\$38.3	\$40.5	\$42.9	\$47.1	\$52.1	\$51.7
Hudson Valley	\$23.4	\$22.9	\$23.7	\$22.1	\$24.9	\$28.2	\$31.6	\$35.5	\$36.5	\$36.7	\$37.9	\$42.7	\$40.9	\$43.8	\$45.5	\$47.5	\$50.7	\$55.5	\$54.1
Millwood	\$7.4	\$7.1	\$7.4	\$6.8	\$7.7	\$8.8	\$9.8	\$11.0	\$11.4	\$11.4	\$11.8	\$13.3	\$12.8	\$13.7	\$14.2	\$14.8	\$15.8	\$17.3	\$16.9
Dunwoodie	\$15.7	\$15.1	\$15.6	\$14.5	\$16.2	\$18.4	\$20.6	\$23.2	\$24.1	\$24.0	\$24.8	\$28.1	\$26.8	\$28.8	\$29.9	\$31.2	\$33.4	\$36.6	\$35.8
NY City	\$152.1	\$147.6	\$152.5	\$141.2	\$159.3	\$180.5	\$204.0	\$231.3	\$240.0	\$238.4	\$246.8	\$278.1	\$265.7	\$286.4	\$297.2	\$309.9	\$332.4	\$364.0	\$354.2
Long Island	\$67.4	\$65.3	\$69.3	\$65.8	\$75.1	\$85.9	\$92.9	\$105.4	\$110.2	\$111.6	\$116.7	\$129.6	\$122.2	\$132.1	\$138.5	\$146.4	\$158.1	\$174.2	\$172.2
NYCA Total	\$257.5	\$254.1	\$272.0	\$254.2	\$282.2	\$325.6	\$372.6	\$423.1	\$443.7	\$445.1	\$457.4	\$513.1	\$486.1	\$528.0	\$550.0	\$566.2	\$597.3	\$661.7	\$634.0

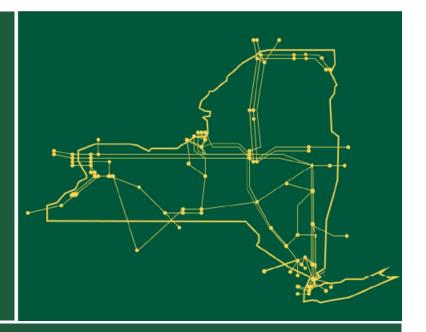


Projected Load Payments Loss Component (\$M)





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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