

# Impact of Modeling the Hudson Valley Gas Region

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# Hudson Valley Gas Region

- ◆ **Covers NYCA Zones F through I**
- ◆ **Natural gas prices in this region are closer to downstate values**

# Production Cost Change

Delta Production Cost Metric (MM\$)	2013	2014	2015	2016	2017	2018	2019	2020
WEST	2	3	4	1	1	1	2	2
GENESSEE	0	0	0	0	0	0	0	0
CENTRAL	4	5	5	4	4	5	2	2
NORTH	2	2	2	1	0	1	1	1
MOHAWKVA	0	0	0	0	0	0	0	0
CAPITAL	-36	-50	-54	-11	0	6	9	17
HUDSONVA	-3	-5	-4	-6	-5	-6	-7	-11
MILLWOOD	0	0	0	0	0	0	0	0
DUNWOODI	0	0	0	0	0	0	0	0
NYCITY	20	21	22	14	11	10	10	7
LONGISLA	4	3	5	4	5	6	5	4
Total NYCA	-7	-21	-22	8	17	22	23	22
Total Imports (MM\$)	28	40	39	19	14	11	14	13
Total Exports (MM\$)	-15	-19	-22	-15	-13	-12	-12	-14
Total NYCA+Imports-Exports (MM\$)	36	38	39	42	43	45	48	48
Total IESO (MM\$)	2	4	4	3	1	1	2	2
Total PJM (MM\$)	17	27	28	10	5	6	7	6
Total NE (MM\$)	16	22	23	17	14	13	13	15
Total HQ (MM\$)	0	0	0	0	0	0	0	0
Total Externals (MM\$)	35	53	55	31	21	20	23	23
Total System (MM\$)	28	32	34	38	38	42	45	44

Values represent the change from two gas regions to three gas regions

# Generation Change

Delta Generation Metric (GWh)	2013	2014	2015	2016	2017	2018	2019	2020
<b>WEST</b>	53	82	87	26	22	12	30	24
<b>GENESSEE</b>	3	1	2	1	0	0	1	1
<b>CENTRAL</b>	93	132	104	72	73	75	30	35
<b>NORTH</b>	72	47	44	20	11	24	22	18
<b>MOHAWKVA</b>	10	8	5	5	4	3	2	2
<b>CAPITAL</b>	-1,974	-2,265	-2,181	-1,016	-775	-638	-587	-452
<b>HUDSONVA</b>	-26	-77	-55	-89	-58	-74	-93	-138
<b>MILLWOOD</b>	0	0	0	0	0	0	0	0
<b>DUNWOODI</b>	0	0	0	0	0	0	0	0
<b>NYCITY</b>	512	521	482	255	183	133	131	74
<b>LONGISLA</b>	62	49	72	51	57	72	53	50
<b>Total NYCA (GWh)</b>	-1,196	-1,503	-1,440	-674	-483	-393	-412	-386
<b>Total Imports (GWh)</b>	844	1,124	1,029	425	266	223	252	201
<b>Total Exports (GWh)</b>	-324	-370	-396	-230	-201	-162	-149	-186
<b>Total NYCA+Imports-Exports (GWh)</b>	-27	-9	-15	-18	-16	-9	-10	1
<b>Total IESO (GWh)</b>	68	128	125	84	34	25	50	52
<b>Total PJM (GWh)</b>	717	903	862	267	190	155	160	126
<b>Total NE (GWh)</b>	393	481	451	301	233	181	182	193
<b>Total HQ (GWh)</b>	0	0	0	0	0	0	0	0
<b>Total Externals (GWh)</b>	1,179	1,512	1,438	651	457	361	392	371
<b>Total System (GWh)</b>	-17	9	-2	-23	-26	-32	-20	-14

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# LBMP Change

Delta Load Spot Price Metric (\$/MWh)	2013	2014	2015	2016	2017	2018	2019	2020
WEST	0.08	0.07	0.06	-0.04	0.02	-0.01	-0.04	-0.03
GENESSEE	0.10	0.11	0.09	-0.03	0.02	-0.02	-0.04	-0.02
CENTRAL	0.13	0.14	0.13	-0.02	0.03	-0.01	-0.03	-0.01
NORTH	0.08	0.10	0.08	-0.04	0.01	-0.03	-0.05	-0.05
MOHAWKVA	0.13	0.15	0.13	-0.02	0.03	-0.01	-0.03	-0.02
CAPITAL	0.54	0.60	0.66	0.32	0.33	0.24	0.25	0.33
HUDSONVA	0.27	0.30	0.31	0.09	0.11	0.02	0.05	0.12
MILLWOOD	0.26	0.28	0.29	0.09	0.10	0.00	0.04	0.12
DUNWOODI	0.25	0.28	0.28	0.09	0.10	0.00	0.04	0.11
NYCITY	0.23	0.24	0.24	0.07	0.08	-0.03	0.02	0.11
LONGISLA	0.10	0.10	0.06	-0.08	-0.01	-0.15	-0.09	-0.03

**Values represent the change from two gas regions to three gas regions**

# Imports Change

Delta Net Imports Metric (GWh)	2013	2014	2015	2016	2017	2018	2019	2020
NYISO-PJM_SOFT	602	791	737	168	116	105	81	79
Neptune HVDC	-8	-32	-21	-17	-17	-17	-10	-4
Cross Sound Cable	-10	8	-16	5	-1	-19	-5	-9
IMO-NYISO	73	96	103	96	43	41	56	59
NYISO-HQ CHAT	0	0	0	0	0	0	0	0
NYISO-HQ CEDAR	0	0	0	0	0	0	0	0
LIPA Cable	14	28	13	0	-7	-8	-3	-7
VFT4	63	54	52	24	22	21	28	23
HTP HVDC AC LINE	53	108	107	83	68	58	66	38
ISONE-NYISO_SOFT	382	442	451	296	242	204	188	209

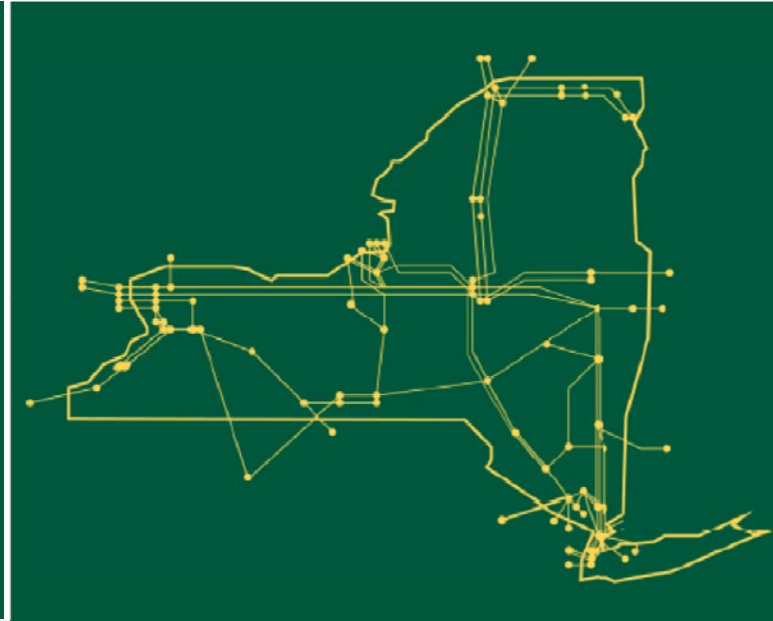
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# Demand Congestion Change

Delta Demand Congestion \$	2013	2014	2015	2016	2017	2018	2019	2020
<b>CENTRAL EAST</b>	23,803,936	24,122,480	28,494,560	17,267,728	14,997,376	12,199,360	14,471,584	21,358,208
<b>ATHENS_PLTVLLEY_345</b>	-5,512,864	-7,342,272	-6,773,968	-2,122,304	-2,688,352	-7,827,584	-4,460,288	-4,136,544
<b>Total Congestion for Year</b>	16,783,974	13,183,278	17,489,589	12,638,627	10,256,284	-776,301	6,806,760	15,791,708

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