

**STATE OF NEW YORK
PUBLIC SERVICE COMMISSION**

	x	
In the Matter of the Value of Distributed	x	Case 15-E-0751
Energy Resources	x	
	x	
Proceeding on Motion of the Commission to	x	Case 19-E-0283
Examine Utilities' Marginal Cost of Service	x	
Studies	x	
	x	

**MARGINAL COST OF SERVICE STUDY COMPLIANCE FILING OF
ORANGE AND ROCKLAND UTILITIES, INC.**

I. Introduction

On August 19, 2024, the New York State Public Service Commission (“Commission”) issued an order¹ in Case 15-E-0751 and Case 19-E-0283 that addressed marginal cost of service studies. The Commission directed Orange and Rockland Utilities, Inc. (“the Company”) to file Marginal Cost of Service (“MCOS”) study on or before June 30, 2025 and include this study in the Company’s Distribution System Implementation Plan filing due on or before June 30, 2025.

The following sections describe the Company’s proposals to meet the directives of the MCOS Order.

¹ *Order Addressing Marginal Cost of Service Studies* (the “MCOS Order”).

II. MCOS Study

The MCOS Order establishes an MCOS methodology based on the traditional National Economic Research Associates' ("NERA") methodology as modified in the MCOS Order. The MCOS Order directs utilities to use a ten-year planning horizon when producing their MCOS study estimates. To ensure that the studies are reasonably long-run in nature, all load growth and multi-value projects (i.e., simultaneously growth and reliability related) planned under the 10-year horizon are to be included in the study. The MCOS studies are required to present the costs of each segment of T&D networks, including FERC-regulated bulk transmission system costs, down to costs at the local distribution primary and secondary line level. The utilities are required to present costs at a level of granularity that includes the substation serving area level. Marginal costs shall be presented for each year of the 10-year study period. Study results shall be listed separately for all 10 years.

The MCOS study submitted in this filing adheres to the methodology described above. It calculates marginal costs for each substation serving area over a 10-year period of 2025 through 2034 for the following four cost centers:

1. Transmission System Cost Center
2. Area Substation and Sub-transmission Cost Center
3. Primary Feeder Cost Center
4. Secondary Distribution Cost Center

Investment needs, their timing, and location for the first two cost centers are taken from the Company's area substation and transmission station ten-year capital plan. In addition, the Company develops a five-year capital budget for the Primary Feeder cost center. Investment needs, their timing, and location for the Secondary Distribution cost center, consisting of distribution transformer and secondary cable costs, are typically studied and identified only a

year to a year and a half in advance and are not readily available for the entire ten-year study period. The study relies on historical samples of load growth and multi-value projects that went into service during 2025 to assess the investment costs for this cost center on a substation serving area basis.

For each cost segment, investment costs are developed on a per kW of added capacity for each load growth and multi-value project. Investment costs are then annualized and converted into revenue requirement figures using a composite factor, which incorporates various loading factors including adders associated with general/common plant, property insurance, operation and maintenance expenses, working capital, and the economic carrying charge. As directed by the MCOS Order, Blue Chip Consensus Forecast of the GDP Implicit Price Deflator is used to develop escalation factors. Resulting marginal cost estimates are presented at both substation serving area level and at the region level. Region level costs are used to determine system average marginal costs per kW of system peak. When developing region level and system average marginal costs, the study excludes estimates of zero marginal costs for serving areas that do not have planned capital projects within the study's 10-year time horizon. In addition, as per the NERA methodology, once projects included in the MCOS study reach their in-service dates, they continue to be included in the calculation of MCOS values for the duration of the study's 10-year horizon.

The following schedules (showing revenue requirement dollars) are presented in the Company's MCOS study:

Schedule 1 – System-Weighted Transmission & Distribution Marginal Costs per kW of System Peak

Schedule 2 – Segment Level Regional Marginal Costs

Schedule 3 – Total Marginal Cost by Area Substation

Schedule 4 – Transmission Marginal Costs by Area Substation

Schedule 5 – Area Station and Sub-Transmission Marginal Costs by Area Substation

Schedule 6 – Primary Feeder Marginal Costs by Area Substation

Schedule 7 – Secondary Distribution Marginal Costs by Area Substation

Schedule 8 – Independent Load by Area Substation

Schedule 9 – Coincident Factor

Schedule 10 – Composite and Escalation Factors

III. Load Forecast Methodology

This section addresses the MCOS Order directive on including a discussion of the Company's load forecasting methodology.

Overview of Forecasting Methodology

Each year, as part of its ten-year forecasting process, the Company forecasts overall system load and the projected summer peak loads for each transmission facility, individual substation including each transformer bank, and each distribution circuit. This process begins immediately after each summer as substation and circuit data is collected, analyzed, and cleaned (from the impact of switching, outages, or weather-related impacts). Once all outliers are removed, the Company uses mathematical regression models to analyze all summer weekday/non-holiday substation transformer load data along with the corresponding daily Temperature Variable (TV) to determine weather-normalized peak loads for each transformer bank. The TV is used in calculating and forecasting future system peak demands, taking into account extreme summer weather conditions, sustained high temperatures and humidity over a

three-day period, that we would expect to experience in the O&R area in one of every three years.

The Company considers the impact of load modifiers, which include Climate Change, Distributed Energy Resource (DER) such as Photo Voltaic (PV), Electric Vehicle (EV), Combined Heat and Power (CHP), Building Electrification of non-heating (EoNH), and Battery Energy Storage System (BESS) including Non-wire Alternative (NWA), and other Demand Side Management (DSM) measures such as Energy Efficiency (EE) and Demand Response (DR) programs. The Company then uses the forecasted loads to perform operating reviews on each of its major assets. These reviews cover transmission lines and substation transformer banks down through their respective distribution circuits, for both normal and contingency operating conditions.

Forecasting is an integral part of O&R's planning process and is one of the most important and influential components of the integrated planning effort, and which drives overall planning results. To further improve its planning process, the Company has focused on incorporating greater granularity in its forecasting models to better understand how specific load modifiers (i.e., the quantity, the location, and the temporal characteristics) impact the system. This enhanced forecasting process is another tool the Company uses to send correct signals to the market, the DER developer community, and other third parties to deploy solutions in the most appropriate locations of the O&R service territory to support the safe and reliable operation of the electric grid.

Summary of each modifier

The Company will continue to refine its forecasting methodology and will be better positioned to adjust its plans/forecasts as required. Below are a few examples of how the Company is using information on specific load modifiers to inform forecasts.

- Climate Change: the Company introduced a line item to its forecasting process to account for climate change's anticipated impact on peak demand. This modifier is informed by the Company's CCVS which utilizes climate projections as provided by NYSERDA in partnership with Columbia University.

- CHP: The Company utilizes an internal model combining both a "bottom-up" queue-based and/or "top-down" growth approach. For a short term (usually years 1-2), the Company prefers to use a bottom-up approach using jobs in queue or historical growth. If there is no pending job in the queue, the long term growth is applied based on the historical installation.

- EV: The EV forecast is developed in the newly designed REV/DER forecasting model and includes the peak impact of charging for both light-duty and medium/heavy-duty EVs. This forecast is informed by Department of Motor Vehicle registration data, comprehensive industry research, and customer project information.

- PV: The PV forecast is developed in the newly designed REV/DER forecasting model. The Company has deployed an improved queue management system at the circuit level to capture the status of current and pending PV projects. The Company analyzed average solar output curves during the summer months and applied the results to the forecasts every year, as provided by metered interval data. The forecasts now reflect two different types of average solar output curves, (1) residential/small commercial and (2) large-scale/community solar, using both system and bank peaking hours to develop granular level forecasts.

- BESS: The BESS forecast is developed in the newly designed REV/DER forecasting model. As the number of solar-plus-storage projects grows every year, the Company has continued to include granular level forecasts considering different coincident factors to differentiate small and large solar-paired batteries, as well as standalone residential and commercial battery storage. The Company treats NWAs as part of the BESS modifier to both represent their effects on local facilities in the forecasting and planning process, and, for reporting purposes, to provide granular level forecasts.

- EoNH: the REV/DER forecasting tool is utilized for the O&R service territory, which enabled more sophisticated modeling of BE adoption with a more diverse array of inputs. The inputs themselves have also been enhanced, including AMI usage data to guide forecasted load shapes and net efficiency of conversion from gas to electric equipment, as well as assumptions towards BE adoption that are more tailored toward the regions within the service territory.

-DSM: The DSM programs consist of EE and DR programs. The EE programs that are expected to reduce the peak forecasts over a five-to-six-year horizon. These include both those administered by the New York State Energy and Research and Development Authority (NYSERDA), New Jersey Office of Clean Energy (NJOCE), and those administered internally by O&R and RECO. O&R has three Demand Response Programs for peak shaving and contingency: the Commercial System Relief Program (CSRP), the Distribution Load Relief Program (DLRP), and the Direct Load Control Program (DLCP). These programs pay commercial and residential customers to provide temporary load reduction during the summer to avoid or delay transmission and distribution system investment and improve the reliability and resiliency of electricity delivery systems.

This advanced understanding of the impact of load modifiers, combined with the ability to develop bottom-up forecasts from granular level data, will enhance O&R's ability to plan for and address the requirements of the CLCPA. Increased understanding of how different load modifiers impact the grid will support O&R's ability to produce more granular, long-term forecasts. Such forecasts will provide Company engineers and planners with greater insights to determine how load modifiers can be incorporated to determine appropriate system needs to meet design standards, address the clean energy goals of the CLCPA, and enhance the safety and reliable operation of the electric delivery system.

The Company's concurrent DSIP filing presents additional details of the load forecasting methodology.

IV. Reserve Margin

This section addresses the MCOS Order directive on including a discussion of how reserve margin is reflected in the MCOS studies.

For MCOS studies, the Company uses spare capacity and reserve margin to evaluate the cost and value of providing additional capacity to meet future demand. These concepts help determine how much it costs to serve incremental load and where infrastructure investments are most needed. Spare capacity represents the unused portion of existing infrastructure (transmission, or distribution) that can serve additional load without requiring new investment. As part of the annual planning process, the Company will continue to identify areas where load can grow without triggering new costs.

The reserve margin ensures system reliability by maintaining extra capacity above peak demand. In MCOS, it affects how much capacity must be added to serve new load reliably. As

part of the capital planning process, the Company evaluates if adding new load would reduce the reserve margin below acceptable levels. This helps to assign costs to customers or locations that drive the need for additional capacity to maintain reserve margins.

To incorporate spare and reserve margin the Company integrates this in the forecasting process through the new business load growth and other modifiers by predicting where and when new demand will occur. As part of the contingency analysis process, the Company determines if existing infrastructure can handle the new load and evaluate whether the new load would reduce reserve margins below thresholds. These results help inform DER incentives, and capital planning.

V. Conclusion

As described herein, the Company's updated MCOS study meets the requirements of the Commission's MCOS Order. The Company looks forward to working with Staff and other stakeholders to discuss this study.

Orange and Rockland Utilities, Inc.
2025 Marginal Cost of Service Study
Case 15-E-0751 and Case 19-E-0283

Orange and Rockland Utilities, Inc.
2025 Marginal Cost of Service Study
Case 15-E-0751 and Case 19-E-0283

Schedule 1 - System-Weighted Transmission & Distribution Marginal Costs per kW of System Peak

System-Weighted T&D Marginal Costs per kW of System Peak					
Year	Transmission Costs	Area Station and Sub- Transmission Costs	Primary Feeder Costs	Secondary Distribution Costs	Total Costs
	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)	(\$/kW)
2025	10.54	14.98	8.47	1.72	35.72
2026	13.93	18.97	7.91	1.77	42.58
2027	14.45	24.79	16.23	1.85	57.32
2028	15.14	38.77	26.61	1.97	82.49
2029	16.89	45.59	33.86	2.15	98.50
2030	18.71	49.00	42.35	2.39	112.46
2031	23.25	55.07	43.17	2.72	124.21
2032	27.97	61.38	43.99	3.15	136.50
2033	28.56	65.30	44.84	3.73	142.44
2034	29.16	66.67	45.71	4.51	146.05

Orange and Rockland Utilities, Inc.
2025 Marginal Cost of Service Study
Case 15-E-0751 and Case 19-E-0283
Schedule 2 - Segment Level Regional Marginal Costs (\$/kW)

Marginal Costs (\$/kW)										
Escalation Rate	100.00%	102.40%	104.55%	106.75%	108.99%	111.28%	113.61%	116.00%	118.44%	120.92%
Composite Rate 0.1303										
Transmission (\$/kW)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Central (NY)	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	10.54	13.93	14.45	15.14	16.89	18.71	23.25	27.97	28.56	29.16
Western (NY)	-	-	-	-	-	-	-	-	-	-
	10.54	13.93	14.45	15.14	16.89	18.71	23.25	27.97	28.56	29.16
Composite Rate 0.1185										
Area Station and Sub-Transmission (\$/kW)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Central (NY)	2.78	7.57	19.07	51.31	64.21	65.56	66.93	68.34	69.77	71.24
Eastern (NY)	21.81	25.16	27.86	32.08	35.71	40.25	48.82	57.73	62.96	64.29
Western (NY)	-	-	-	-	-	-	-	-	-	-
	14.98	18.97	24.79	38.77	45.59	49.00	55.07	61.38	65.30	66.67
Composite Rate 0.1539										
Primary Feeder (\$/kW)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Central (NY)	1.64	4.60	11.69	24.10	29.44	30.05	30.69	31.33	31.99	32.66
Eastern (NY)	-	5.61	15.02	26.30	26.85	33.50	34.21	34.93	35.66	36.41
Western (NY)	17.76	18.18	25.48	30.86	58.35	83.02	84.76	86.54	88.36	90.22
	8.47	7.91	16.23	26.61	33.86	42.35	43.17	43.99	44.84	45.71
Composite Rate 0.1372										
Secondary Distribution (\$/kW)	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Central (NY)	1.72	1.77	1.85	1.97	2.15	2.39	2.72	3.15	3.73	4.51
Eastern (NY)	1.72	1.77	1.85	1.97	2.15	2.39	2.72	3.15	3.73	4.51
Western (NY)	1.72	1.77	1.85	1.97	2.15	2.39	2.72	3.15	3.73	4.51
	1.72	1.77	1.85	1.97	2.15	2.39	2.72	3.15	3.73	4.51

Orange and Rockland Utilities, Inc.
2025 Marginal Cost of Service Study
Case 15-E-0751 and Case 19-E-0283
Schedule 3 - Total Marginal Cost by Area Substation (\$/kW)

Asset
Total

Region	Area Substation	Marginal Costs (\$/kW)									
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Eastern (NY)	Aluf	2	2	2	2	2	2	3	3	4	4
Central (NY)	Blooming Grove	20	21	31	29	30	31	32	33	34	35
Western (NY)	Bloomingburg (SubArea)	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Blue Hill	2	2	2	2	2	2	3	3	4	4
Central (NY)	Blue Lake	2	2	2	2	2	2	3	3	4	4
Western (NY)	Bullville (SubArea)	2	2	2	2	128	104	106	109	112	115
Eastern (NY)	Burns	2	2	2	2	2	2	3	3	4	4
Central (NY)	Chester	2	2	2	2	2	2	3	3	4	4
Central (NY)	Chester 34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Congers	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Corporate Drive	2	2	2	60	61	63	64	66	68	70
Western (NY)	Cuddebackville	2	2	2	2	2	2	3	3	4	4
Central (NY)	Dean (SubArea)	2	27	27	28	29	29	30	31	33	34
Western (NY)	Deer Park	2	2	2	2	2	2	3	3	4	4
Western (NY)	Deer Park 34.5KV	2	2	2	2	2	2	3	3	4	4
Western (NY)	East Wallkill	2	2	2	2	2	26	27	28	29	31
Eastern (NY)	Grassy Point	2	2	2	2	2	2	3	3	4	4
Central (NY)	Harriman	2	2	2	2	2	2	3	3	4	4
Central (NY)	Harriman-34.5KV	2	2	2	2	2	2	3	3	4	4
Central (NY)	Hartley Road	2	2	2	2	2	2	3	3	4	4
Central (NY)	Highland Falls (SubArea)	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Hillburn	2	2	2	2	2	2	3	3	4	4
Central (NY)	Hunt	2	2	2	2	2	2	3	3	4	4
Central (NY)	Lake Road	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Lederle	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Little Tor	2	2	2	11	19	20	21	22	22	24
Western (NY)	Mongaup	2	2	2	2	174	177	181	186	190	195
Central (NY)	Monroe	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Monsey	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Nanuet	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	New Hempstead	2	2	2	3	8	14	15	16	17	18
Eastern (NY)	Oak St.	2	3	4	5	7	10	33	57	59	61
Eastern (NY)	Orangeburg	2	2	2	2	2	2	3	3	4	4
Western (NY)	Otisville (SubArea)	2	2	62	64	65	67	68	70	72	74
Western (NY)	Port Jervis	13	13	13	14	14	14	15	16	17	18
Western (NY)	Rio-34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Rockland Sewer	2	2	2	2	2	2	3	3	4	4
Western (NY)	Shoemaker	2	2	2	2	2	2	3	3	4	4
Western (NY)	Shoemaker-34.5KV	2	2	2	2	2	2	3	3	4	4
Western (NY)	Silver Lake	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Sloatsburg	5	16	26	29	30	31	32	33	34	35
Eastern (NY)	Snake Hill	2	2	2	2	2	2	3	3	4	4
Central (NY)	South Goshen	5	9	21	53	66	67	69	71	73	75
Central (NY)	South Goshen 34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Sparkill	2	2	2	2	2	2	3	3	4	4
Central (NY)	State School	2	2	2	2	2	2	3	3	4	4
Central (NY)	Sterling Forest	2	2	21	33	34	35	36	37	38	39
Eastern (NY)	Stony Point	2	24	24	25	26	26	27	28	29	31
Western (NY)	Summitville (SubArea)	2	2	2	44	45	47	48	49	51	52
Western (NY)	Swinging Bridge	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Tallman	2	2	31	32	33	34	35	36	37	38
Western (NY)	Washington Heights	2	2	2	2	2	2	3	3	4	4
Western (NY)	Washington Heights 34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	West Haverstraw	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	West Nyack	18	24	24	25	25	26	27	28	29	30
Western (NY)	Westtown	2	2	2	2	2	2	3	3	4	4
Central (NY)	Wisner	125	128	131	134	137	140	143	147	150	154
Western (NY)	Wurstboro (SubArea)	125	128	131	134	137	140	143	147	150	154
Eastern (NY)	Viola Road	93	48	49	51	53	63	81	100	112	115

Note: Total marginal cost includes transmission, area station and sub-transmission, primary feeder, and secondary distribution marginal costs.

Schedule 4 - Transmission Marginal Costs by Area Substation (\$/kW)

Asset	Composite Rate
Transmission	0.1289

Region	Area Substation
Eastern (NY)	Aluf
Central (NY)	Blooming Grove
Western (NY)	Bloomingburg (SubArea)
Eastern (NY)	Blue Hill
Central (NY)	Blue Lake
Western (NY)	Bullville (SubArea)
Eastern (NY)	Burns
Central (NY)	Chester
Central (NY)	Chester 34.5KV
Eastern (NY)	Congers
Eastern (NY)	Corporate Drive
Western (NY)	Cuddebackville
Central (NY)	Dean (SubArea)
Western (NY)	Deer Park
Western (NY)	Deer Park 34.5KV
Western (NY)	East Wallkill
Eastern (NY)	Grassy Point
Central (NY)	Harriman
Central (NY)	Harriman-34.5KV
Central (NY)	Hartley Road
Central (NY)	Highland Falls (SubArea)
Eastern (NY)	Hillburn
Central (NY)	Hunt
Central (NY)	Lake Road
Eastern (NY)	Lederle
Eastern (NY)	Little Tor
Western (NY)	Mongaup
Central (NY)	Monroe
Eastern (NY)	Monsey
Eastern (NY)	Nanuet
Eastern (NY)	New Hempstead
Eastern (NY)	Oak St.
Eastern (NY)	Orangeburg
Western (NY)	Otisville (SubArea)
Western (NY)	Port Jervis
Western (NY)	Rio-34.5KV
Eastern (NY)	Rockland Sewer
Western (NY)	Shoemaker
Western (NY)	Shoemaker-34.5KV
Western (NY)	Silver Lake
Eastern (NY)	Sloatsburg
Eastern (NY)	Snake Hill
Central (NY)	South Goshen
Central (NY)	South Goshen 34.5KV
Eastern (NY)	Sparkill
Central (NY)	State School
Central (NY)	Sterling Forest
Eastern (NY)	Stony Point
Western (NY)	Summitville (SubArea)
Western (NY)	Swinging Bridge
Eastern (NY)	Tallman
Western (NY)	Washington Heights
Western (NY)	Washington Heights 34.5KV
Eastern (NY)	West Haverstraw
Eastern (NY)	West Nyack
Western (NY)	Westtown
Central (NY)	Wisner
Western (NY)	Wurstboro (SubArea)
Eastern (NY)	Viola Road

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Orange and Rockland Utilities, Inc.
2025 Marginal Cost of Service Study
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Schedule 5 - Area Station and Sub-Transmission Marginal Costs by Area Substation (\$/kW)

Asset		Composite Rate	
Substation		0.1172	

Region	Area Substation	Escalation Rate									
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
		100.00%	102.40%	104.55%	106.75%	108.99%	111.28%	113.61%	116.00%	118.44%	120.92%
		Marginal Costs (\$/kW)									
Region	Area Substation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
		-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Aluf	-	-	-	-	-	-	-	-	-	-
Central (NY)	Blooming Grove	-	-	-	-	-	-	-	-	-	-
Western (NY)	Bloomingburg (SubArea)	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Blue Hill	-	-	-	-	-	-	-	-	-	-
Central (NY)	Blue Lake	-	-	-	-	-	-	-	-	-	-
Western (NY)	Bullville (SubArea)	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Burns	-	-	-	-	-	-	-	-	-	-
Central (NY)	Chester	-	-	-	-	-	-	-	-	-	-
Central (NY)	Chester 34.5KV	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Congers	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Corporate Drive	-	-	-	-	-	-	-	-	-	-
Western (NY)	Cuddebackville	-	-	-	-	-	-	-	-	-	-
Central (NY)	Dean (SubArea)	-	-	-	-	-	-	-	-	-	-
Western (NY)	Deer Park	-	-	-	-	-	-	-	-	-	-
Western (NY)	Deer Park 34.5KV	-	-	-	-	-	-	-	-	-	-
Western (NY)	East Wallkill	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Grassy Point	-	-	-	-	-	-	-	-	-	-
Central (NY)	Harriman	-	-	-	-	-	-	-	-	-	-
Central (NY)	Harriman-34.5KV	-	-	-	-	-	-	-	-	-	-
Central (NY)	Hartley Road	-	-	-	-	-	-	-	-	-	-
Central (NY)	Highland Falls (SubArea)	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Hillburn	-	-	-	-	-	-	-	-	-	-
Central (NY)	Hunt	-	-	-	-	-	-	-	-	-	-
Central (NY)	Lake Road	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Lederle	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Little Tor	0.22	0.32	0.47	9	17	18	18	18	19	19
Western (NY)	Mongaup	-	-	-	-	-	-	-	-	-	-
Central (NY)	Monroe	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Monsey	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Nanuet	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	New Hempstead	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Oak St.	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Orangeburg	-	-	-	-	-	-	-	-	-	-
Western (NY)	Otisville (SubArea)	-	-	-	-	-	-	-	-	-	-
Western (NY)	Port Jervis	-	-	-	-	-	-	-	-	-	-
Western (NY)	Rio-34.5KV	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Rockland Sewer	-	-	-	-	-	-	-	-	-	-
Western (NY)	Shoemaker	-	-	-	-	-	-	-	-	-	-
Western (NY)	Shoemaker-34.5KV	-	-	-	-	-	-	-	-	-	-
Western (NY)	Silver Lake	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Sloatsburg	3	15	24	27	28	28	29	30	30	31
Eastern (NY)	Snake Hill	-	-	-	-	-	-	-	-	-	-
Central (NY)	South Goshen	3	7	19	51	63	65	66	68	69	70
Central (NY)	South Goshen 34.5KV	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Sparkill	-	-	-	-	-	-	-	-	-	-
Central (NY)	State School	-	-	-	-	-	-	-	-	-	-
Central (NY)	Sterling Forest	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Stony Point	-	-	-	-	-	-	-	-	-	-
Western (NY)	Summitville (SubArea)	-	-	-	-	-	-	-	-	-	-
Western (NY)	Swinging Bridge	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Tallman	-	-	-	-	-	-	-	-	-	-
Western (NY)	Washington Heights	-	-	-	-	-	-	-	-	-	-
Western (NY)	Washington Heights 34.5KV	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	West Haverstraw	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	West Nyack	-	-	-	-	-	-	-	-	-	-
Western (NY)	Westtown	-	-	-	-	-	-	-	-	-	-
Central (NY)	Wisner	-	-	-	-	-	-	-	-	-	-
Western (NY)	Wurstboro (SubArea)	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Viola Road	91	47	48	49	51	60	78	97	108	110

Schedule 6 - Primary Feeder Marginal Costs by Area Substation (\$/kW)

Asset	Composite Rate
Primary	0.1522

Region	Area Substation
Eastern (NY)	Aluf
Central (NY)	Blooming Grove
Western (NY)	Bloomingburg (SubArea)
Eastern (NY)	Blue Hill
Central (NY)	Blue Lake
Western (NY)	Bullville (SubArea)
Eastern (NY)	Burns
Central (NY)	Chester
Central (NY)	Chester 34.5KV
Eastern (NY)	Congers
Eastern (NY)	Corporate Drive
Western (NY)	Cuddebackville
Central (NY)	Dean (SubArea)
Western (NY)	Deer Park
Western (NY)	Deer Park 34.5KV
Western (NY)	East Wallkill
Eastern (NY)	Grassy Point
Central (NY)	Harriman
Central (NY)	Harriman-34.5KV
Central (NY)	Hartley Road
Central (NY)	Highland Falls (SubArea)
Eastern (NY)	Hillburn
Central (NY)	Hunt
Central (NY)	Lake Road
Eastern (NY)	Lederle
Eastern (NY)	Little Tor
Western (NY)	Mongaup
Central (NY)	Monroe
Eastern (NY)	Monsey
Eastern (NY)	Nanuet
Eastern (NY)	New Hempstead
Eastern (NY)	Oak St.
Eastern (NY)	Orangeburg
Western (NY)	Otisville (SubArea)
Western (NY)	Port Jervis
Western (NY)	Rio-34.5KV
Eastern (NY)	Rockland Sewer
Western (NY)	Shoemaker
Western (NY)	Shoemaker-34.5KV
Western (NY)	Silver Lake
Eastern (NY)	Sloatsburg
Eastern (NY)	Snake Hill
Central (NY)	South Goshen
Central (NY)	South Goshen 34.5KV
Eastern (NY)	Sparkill
Central (NY)	State School
Central (NY)	Sterling Forest
Eastern (NY)	Stony Point
Western (NY)	Summitville (SubArea)
Western (NY)	Swinging Bridge
Eastern (NY)	Tallman
Western (NY)	Washington Heights
Western (NY)	Washington Heights 34.5KV
Eastern (NY)	West Haverstraw
Eastern (NY)	West Nyack
Western (NY)	Westtown
Central (NY)	Wisner
Western (NY)	Wurstboro (SubArea)
Eastern (NY)	Viola Road

[illegible]

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Schedule 7 - Secondary Distribution Marginal Costs by Area Substation (\$/kW)

Asset		Composite Rate	
Sec. Dist.		0.1357	

Region	Area Substation	Escalation Rate									
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
		100.00%	102.40%	104.55%	106.75%	108.99%	111.28%	113.61%	116.00%	118.44%	120.92%
		Marginal Costs (\$/kW)									
Region	Area Substation	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
		2	2	2	2	2	2	3	3	4	4
Central (NY)	Blooming Grove	2	2	2	2	2	2	3	3	4	4
Western (NY)	Bloomingburg (SubArea)	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Blue Hill	2	2	2	2	2	2	3	3	4	4
Central (NY)	Blue Lake	2	2	2	2	2	2	3	3	4	4
Western (NY)	Bullville (SubArea)	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Burns	2	2	2	2	2	2	3	3	4	4
Central (NY)	Chester	2	2	2	2	2	2	3	3	4	4
Central (NY)	Chester 34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Congers	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Corporate Drive	2	2	2	2	2	2	3	3	4	4
Western (NY)	Cuddebackville	2	2	2	2	2	2	3	3	4	4
Central (NY)	Dean (SubArea)	2	2	2	2	2	2	3	3	4	4
Western (NY)	Deer Park	2	2	2	2	2	2	3	3	4	4
Western (NY)	Deer Park 34.5KV	2	2	2	2	2	2	3	3	4	4
Western (NY)	East Wallkill	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Grassy Point	2	2	2	2	2	2	3	3	4	4
Central (NY)	Harriman	2	2	2	2	2	2	3	3	4	4
Central (NY)	Harriman-34.5KV	2	2	2	2	2	2	3	3	4	4
Central (NY)	Hartley Road	2	2	2	2	2	2	3	3	4	4
Central (NY)	Highland Falls (SubArea)	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Hillburn	2	2	2	2	2	2	3	3	4	4
Central (NY)	Hunt	2	2	2	2	2	2	3	3	4	4
Central (NY)	Lake Road	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Lederle	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Little Tor	2	2	2	2	2	2	3	3	4	4
Western (NY)	Mongaup	2	2	2	2	2	2	3	3	4	4
Central (NY)	Monroe	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Monsey	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Nanuet	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	New Hempstead	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Oak St.	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Orangeburg	2	2	2	2	2	2	3	3	4	4
Western (NY)	Otisville (SubArea)	2	2	2	2	2	2	3	3	4	4
Western (NY)	Port Jervis	2	2	2	2	2	2	3	3	4	4
Western (NY)	Rio-34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Rockland Sewer	2	2	2	2	2	2	3	3	4	4
Western (NY)	Shoemaker	2	2	2	2	2	2	3	3	4	4
Western (NY)	Shoemaker-34.5KV	2	2	2	2	2	2	3	3	4	4
Western (NY)	Silver Lake	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Sloatsburg	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Snake Hill	2	2	2	2	2	2	3	3	4	4
Central (NY)	South Goshen	2	2	2	2	2	2	3	3	4	4
Central (NY)	South Goshen 34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Sparkill	2	2	2	2	2	2	3	3	4	4
Central (NY)	State School	2	2	2	2	2	2	3	3	4	4
Central (NY)	Sterling Forest	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Stony Point	2	2	2	2	2	2	3	3	4	4
Western (NY)	Summitville (SubArea)	2	2	2	2	2	2	3	3	4	4
Western (NY)	Swinging Bridge	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Tallman	2	2	2	2	2	2	3	3	4	4
Western (NY)	Washington Heights	2	2	2	2	2	2	3	3	4	4
Western (NY)	Washington Heights 34.5KV	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	West Haverstraw	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	West Nyack	2	2	2	2	2	2	3	3	4	4
Western (NY)	Westtown	2	2	2	2	2	2	3	3	4	4
Central (NY)	Wisner	2	2	2	2	2	2	3	3	4	4
Western (NY)	Wurstboro (SubArea)	2	2	2	2	2	2	3	3	4	4
Eastern (NY)	Viola Road	2	2	2	2	2	2	3	3	4	4

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Schedule 8 - Independent Load by Area Substation (MW)**

Independent Load May 2025

Region	Area Substation	Net Independent Load (MW)									
		2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Eastern (NY)	Aluf	7	7	7	7	7	7	7	7	7	7
Central (NY)	Blooming Grove	20	20	20	21	21	22	23	24	24	25
Western (NY)	Bloomingburg (SubArea)	8	8	9	9	9	9	9	10	10	10
Eastern (NY)	Blue Hill	4	4	4	4	4	4	4	4	4	4
Central (NY)	Blue Lake	7	7	7	7	7	8	8	8	8	8
Western (NY)	Bullville (SubArea)	8	8	9	9	9	9	9	10	10	10
Eastern (NY)	Burns	54	54	55	55	57	60	62	64	66	68
Central (NY)	Chester	25	24	25	25	26	28	29	30	31	32
Central (NY)	Chester 34.5KV	6	6	6	6	6	6	6	6	6	6
Eastern (NY)	Congers	43	44	45	45	47	49	51	52	54	56
Eastern (NY)	Corporate Drive	51	73	73	73	74	75	75	75	75	75
Western (NY)	Cuddebackville	21	21	21	21	21	21	22	22	22	22
Central (NY)	Dean (SubArea)	5	5	5	5	6	6	6	6	6	6
Western (NY)	Deer Park	3	3	3	3	3	3	3	4	4	4
Western (NY)	Deer Park 34.5KV	18	18	18	18	17	18	19	19	20	20
Western (NY)	East Wallkill	31	31	31	31	31	32	32	32	32	32
Eastern (NY)	Grassy Point	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Central (NY)	Harriman	46	46	46	46	47	48	49	50	50	51
Central (NY)	Harriman-34.5KV	34	34	34	34	35	36	37	37	37	37
Central (NY)	Hartley Road	34	39	39	39	40	40	41	41	41	42
Central (NY)	Highland Falls (SubArea)	5	5	5	5	5	5	5	6	6	6
Eastern (NY)	Hillburn	13	13	13	14	15	15	16	17	18	19
Central (NY)	Hunt	16	16	16	17	17	18	19	19	20	21
Central (NY)	Lake Road	5	5	5	5	5	5	5	5	5	5
Eastern (NY)	Lederle	-	-	-	-	-	-	-	-	-	-
Eastern (NY)	Little Tor	8	8	8	8	9	9	9	10	10	10
Western (NY)	Mongaup	2	2	2	2	2	2	2	2	2	2
Central (NY)	Monroe	73	75	76	77	80	83	85	88	91	94
Eastern (NY)	Monsey	47	48	48	49	51	53	55	56	58	60
Eastern (NY)	Nanuet	29	29	29	30	31	32	32	33	34	35
Eastern (NY)	New Hempstead	70	70	71	72	74	78	80	82	85	87
Eastern (NY)	Oak St.	9	10	12	13	15	16	18	19	21	22
Eastern (NY)	Orangeburg	34	34	34	35	36	37	38	39	40	41
Western (NY)	Otisville (SubArea)	8	8	8	8	9	9	9	9	10	10
Western (NY)	Port Jervis	14	14	14	14	15	15	16	16	16	17
Western (NY)	Rio-34.5KV	9	9	9	9	9	9	9	10	10	10
Eastern (NY)	Rockland Sewer	1	1	1	1	1	1	1	1	1	1
Western (NY)	Shoemaker	23	26	26	26	27	28	28	28	29	29
Western (NY)	Shoemaker-34.5KV	9	9	9	9	9	9	9	9	9	9
Western (NY)	Silver Lake	34	34	34	33	33	34	34	35	35	35
Eastern (NY)	Sloatsburg	13	17	20	23	23	24	24	24	25	25
Eastern (NY)	Snake Hill	33	34	34	35	33	35	36	37	39	40
Central (NY)	South Goshen	15	15	16	16	14	15	16	18	19	20
Central (NY)	South Goshen 34.5KV	5	5	5	5	5	5	5	5	5	5
Eastern (NY)	Sparkill	23	24	25	25	26	27	28	29	30	31
Central (NY)	State School	5	5	5	5	5	5	5	5	5	5
Central (NY)	Sterling Forest	5	5	5	5	5	5	6	6	6	6
Eastern (NY)	Stony Point	24	24	25	25	26	28	29	30	31	32
Western (NY)	Summitville (SubArea)	2	2	2	2	2	2	2	2	2	3
Western (NY)	Swinging Bridge	0.04	0.04	0.04	0.05	0.05	0.05	0.06	0.06	0.06	0.07
Eastern (NY)	Tallman	54	55	55	56	57	60	61	63	64	66
Western (NY)	Washington Heights	18	17	16	16	17	17	17	17	17	18
Western (NY)	Washington Heights 34.5KV	16	16	17	17	17	17	18	18	19	19
Eastern (NY)	West Haverstraw	49	49	50	51	52	54	56	58	59	61
Eastern (NY)	West Nyack	33	34	34	35	36	37	38	40	41	42
Western (NY)	Westtown	18	22	22	23	23	24	25	26	27	28
Central (NY)	Wisner	30	30	31	31	32	34	35	36	37	39
Western (NY)	Wurstboro (SubArea)	4	4	4	4	5	5	5	5	5	5
Eastern (NY)	Viola Road	-	-	-	-	-	-	-	-	-	-

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Schedule 9 - Coincident Factor

Region	Net Independent Load (MW)									
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Central (NY)	335	342	346	350	357	370	379	389	398	408
Eastern (NY)	598	632	643	656	673	700	719	739	760	781
Western (NY)	246	252	254	254	257	264	269	273	278	283
System Total	1,179	1,226	1,243	1,261	1,288	1,335	1,367	1,401	1,436	1,472

System Total	Coincident Factor									
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Coincident Load	1,143	1,187	1,205	1,225	1,255	1,306	1,341	1,380	1,420	1,460
Independent Load	1,179	1,226	1,243	1,261	1,288	1,335	1,367	1,401	1,436	1,472
Difference	36	39	38	36	33	29	26	21	16	12
1/2 of Difference	18	20	19	18	16	15	13	11	8	6
1/2 of Difference Added to Area Station Regional Total	1,161	1,207	1,224	1,243	1,271	1,321	1,354	1,391	1,428	1,466
Coincident Factor	98.43%	98.37%	98.45%	98.56%	98.71%	98.89%	99.05%	99.24%	99.43%	99.60%

10-Year Average Coincident Factor

98.87%

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Schedule 10 - Composite and Escalation Factors

Composite Factors by Cost Center

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Demand-Related Expenses as a Percent of Reproduction Costs	Loading Factor for A&G Expenses	O&M With Non-Plant A&G	With General Plant Loading	Economic Carrying Charge	Property Insurance	Annualized Investment	Working Capital as a Percent of Total Electric Plant in Service	Revenue Requirement for Working Capital Factor	Revenue Requirement for Working Capital	Annual Marginal Cost (Area Substation Level)	Annual Marginal Cost Adjusted for Coincident Factor	Annual Marginal Cost (System Peak)
Cost Center			(1) x [1 + (2)]				(5) + (6)			(8) x (9)	(3) + [1 + (4)] * (7 + 10)		(11) / (12)
Transmission	0.0255	0.0223	0.0261	0.1325	0.0872	0.0012	0.0884	0.0271	0.0896	0.0024	0.1289	0.9887	0.1303
Substation	0.0185	0.0223	0.0189	0.0839	0.0872	0.0012	0.0884	0.0256	0.0896	0.0023	0.1172	0.9887	0.1185
Primary	0.0436	0.0223	0.0446	0.1968	0.0872		0.0872	0.0305	0.0896	0.0027	0.1522	0.9887	0.1539
Secondary Distribution	0.0305	0.0223	0.0312	0.1695	0.0872		0.0872	0.0243	0.0896	0.0022	0.1357	0.9887	0.1372

Blue Chip Consensus Forecast of the GDP Implicit Price Deflator (Vol. 44, No. 6, June 2, 2025)

Year	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
GDP Chained Price Index		2.4%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Escalation Rate	100.00%	102.40%	104.55%	106.75%	108.99%	111.28%	113.61%	116.00%	118.44%	120.92%