New York ISO
Independent System Operator

Summer 2024 UCAP Demand Curves

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ICAP Market Operations

ICAP Working Group

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Agenda

- Summer 2024 Unforced Capacity (“UCAP”) Demand Curves Overview

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ICAP Demand Curve Reference Points

	2023-2024 Final ICAP Ref. Point ($/kW-month)*	2024-2025 Final ICAP Ref. Point ($/kW-month)**	Delta (2024 - 2025) – (2023 - 2024)
NYCA	$8.43	$7.41	($1.07)
G-J	$12.42	$9.96	($2.46)
NYC	$22.42	$19.84	($2.58)
LI	$15.48	$11.29	($4.19)

**The 2023-2024 values shown reflect the use of a 17-year amortization period that was implemented beginning in July 2023 in accordance with the directives of the May 19, 2023 order issued by FERC in Docket No. ER21-502.*

**https://www.nyiso.com/documents/20142/41273741/Annual%20Update%20for%202024-2025%20ICAP%20Demand%20Curves.pdf/

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		Current Year (2024-2025)			
	Source	C - Central	G - Hudson Valley (Rockland)	J - New York City	K - Long Island
Gross Cost of New Entry ($/kW-Year)	[1]	$132.98	$174.72	$229.11	$186.37
Net EAS Revenue ($/kW-Year)	[2]	$60.63	$95.90	$78.13	$125.14
Annual ICAP Reference Value ($/kW-Year)	[3] = [1] - [2]	$72.35	$78.82	$150.98	$61.24
ICAP DMNC (MW)	[4]	326.7	347.0	348.8	348.8
Total Annual Reference Value	**[5] = [3] * [4]**	**$23,636,255**	**$27,351,199**	**$52,663,115**	**$21,359,640**
Level of Excess (%)	[6]	100.9%	102.5%	103.5%	106.5%
Ratio of Summer to Winter DMNCs	[7]	1.033	1.058	1.067	1.072
Summer DMNC (MW)	[8]	329.3	348.2	348.5	351.1
Winter DMNC (MW)	[9]	344.7	369.9	374.1	373.0
Assumed Capacity Prices at Tariff Prescribed Level of Excess Conditions					
Summer ($/kW-Month)	[10]	$6.89	$8.33	$15.97	$7.24
Winter ($/kW-Month)	[11]	$4.85	$4.48	$8.59	$2.73
Monthly Revenue (Summer)	[12] = [10]*[8]	$2,267,988	$2,901,481	$5,565,301	$2,542,982
Monthly Revenue (Winter)	[13] = [11]*[9]	$1,671,381	$1,657,078	$3,211,873	$1,016,947
Seasonal Revenue (Summer)	[14] = 6 * [12]	$13,607,927	$17,408,886	$33,391,806	$15,257,893
Seasonal Revenue (Winter)	[15] = 6 * [13]	$10,028,288	$9,942,468	$19,271,238	$6,101,683
Total Annual Reference Value	**[16] = [14]+[15]**	**$23,636,216**	**$27,351,354**	**$52,663,044**	**$21,359,576**
ICAP Demand Curve Parameters					
ICAP Monthly Reference Point Price ($/kW-Month)		**$7.41**	**$9.96**	**$19.84**	**$11.29**
ICAP Max Clearing Price ($/kW-Month)		$17.32	$23.67	$31.63	$26.59
Demand Curve Length		12%	15%	18%	18%

Note: Certain values in the table are rounded, while the underlying calculation uses unrounded values.

https://www.nyiso.com/installed-capacity-market Reference Documents -> Demand Curve Reset Annual Updates -> 2024

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ICAP to UCAP Translation

- **Starting with the 2024-2025 Capability Year ICAP Demand Curves, the ICAP reference points will be translated into UCAP terms based on the applicable Capacity Accreditation Factor ("CAF") and unit specific derating factor of the peaking plant used to determine each curve.**
  - The peaking plant's CAF for each ICAP Demand Curve is 100%
    - NYCA ICAP Demand Curve peaking plant: GE 7HA.02 [15 ppm], gas-only without selective catalytic reduction (SCR) emissions controls
    - G-J Locality, NYC, and LI ICAP Demand Curves peaking plant: GE 7HA.02 [25 ppm], dual fuel with SCR emissions controls
  - The unit specific derating factor of the peaking plant for each ICAP Demand Curve is 4.3%, as identified in the technology performance parameters developed for the 2021-2025 ICAP Demand Curve reset ("DCR")
  - $UCAP\ reference\ point = \frac{ICAP\ reference\ point}{CAF * (1 - Derating\ Factor)}$
- **Starting with the 2024-2025 Capability Year, the ICAP MW requirements will be translated to UCAP MW requirements by using the applicable NYCA or Locality translation factor, where CAFs and unit specific derating factors for all resources are considered (see Section 5.5 of the Installed Capacity Manual)**
  - $UCAP\ MW\ Requirement = ICAP\ MW Requirement * (1 - Translation\ Factor)$
    - The translation factor is derived from the UCAP from all applicable resources based on their CAFs and unit specific derating factors
  - https://www.nyiso.com/documents/20142/41593818/Final-CAFs-for-the-2024-2025-capability-year.pdf/

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2024-2025 Capability Year UCAP Reference Points

	2024-2025 Capability Year ICAP Based Reference Point ($/kW-month)	Peaking Plant Derating Factor	Peaking Plant CAF	2024-2025 Capability Year ICAP/UCAP Reference Point Translation Factor	2024-2025 Capability Year UCAP Based Reference Point ($/kW-month)
NYCA	$7.41	4.3%	100%	95.7%	$7.74
G-J	$9.96	4.3%	100%	95.7%	$10.41
NYC	$19.84	4.3%	100%	95.7%	$20.73
LI	$11.29	4.3%	100%	95.7%	$11.80

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Summer 2024 UCAP Requirements

	Summer 2024 ICAP Requirement	Summer 2024 ICAP/UCAP Requirement Translation Factor	Summer 2024 UCAP Requirement	Zero Crossing Point %	Summer 2024 UCAP at Zero Crossing Point	Summer 2024 Demand Curve Slope (in UCAP) per 100 MW
NYCA	38,480.8	13.21%	33,397.5	112%	37,405.2	-$0.1931
G-J	12,328.4	7.03%	11,461.7	115%	13,181.0	-$0.6055
NYC	9,124.2	4.62%	8,702.7	118%	10,269.1	-$1.3233
LI	5,310.7	8.66%	4,850.8	118%	5,723.9	-$1.3514

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Observations

- **The Summer 2024 UCAP Demand Curves are determined using the updated methodology that applies starting with the 2024-2025 Capability Year:**
  - The UCAP reference point is determined based on specific characteristics of the applicable peaking plant (i.e., CAF and derating factor), instead of the NYCA or Locality translation factors
  - The translation factors used in determining UCAP MW requirements calculation account for the CAFs and resource derating factors for all applicable resources
- **The changes implemented for the 2024-2025 Capability Year apply only to the translation of ICAP values to UCAP terms**
  - Derivation of the 2024-2025 Capability Year ICAP Demand Curves remains unchanged from past practices, continuing use of prior methodologies to account for the NYCA Installed Reserve Margin ("IRM"), Locational Minimum Installed Capacity Requirements ("LCRs"), load forecasts, and calculate the ICAP reference points
- **Final UCAP Demand Curves for the 2024 Summer Capability Period posted on the NYISO's website at:** https://www.nyiso.com/documents/20142/43679735/1-10-DcTranslation-Summer-2024%20Final.pdf/

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Questions?

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Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

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