New York ISO
Independent System Operator

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Annual Update for 2024-2025 ICAP Demand Curves

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ICAP Market Operations

Note: This reposted version includes a minor correction to Slide 24 in response to stakeholder feedback

ICAPWG

November 17, 2023, 10 Krey Boulevard

Agenda

- Background
- Process Overview
- Winter-to-Summer Ratio
- Gross CONE Composite Escalation Factor
- Net Energy and Ancillary Services Revenue Offset
- ICAP Reference Point Values
- Appendix

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Background

Background

- As a part of the 2021-2025 ICAP Demand Curve reset process, annual updates to the ICAP Demand Curves are completed each year within the reset period.
- ICAP Demand Curve reference points are calculated for the upcoming Capability Year

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Process Overview

Annual Update Process Overview

- **Three components of the ICAP Demand Curve input parameters will be updated**
  - Gross cost of new entry (CONE) for peaking plants using a composite escalation factor
  - Net Energy and Ancillary Services (Net EAS) revenue offset
  - Winter-to-Summer ratio (WSR) values

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Annual Update Process Overview

- **The 2024-2025 Capability Year (CY) ICAP Demand Curves will use data from September 1, 2020 – August 31, 2023, for updating the WSR and Net EAS revenue offset values**
  - Year 1: September 1, 2020 – August 31, 2021
  - Year 2: September 1, 2021 – August 31, 2022
  - Year 3: September 1, 2022 – August 31, 2023
  - *Rolled Off: September 1, 2019 – August 31, 2020*

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Annual Update Process Timeline

- **October:**
  - Updated WSR values (posted to NYISO website)
- **November:**
  - Updated Gross CONE values
  - Updated Net EAS revenue offset values
  - ICAP Demand Curve reference point values

All annual update information is posted in the "Installed Capacity Market (ICAP)" section of the NYISO public website under "Reference Documents" > "Demand Curve Reset Annual Updates" > "2024"

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Winter-to-Summer Ratio

Winter-to-Summer Ratio

- The WSR captures differences in quantity of ICAP available between winter and summer seasons given differences in seasonal operational capability
- The annual update process requires adjustments for certain qualifying resource entry and exit circumstances

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Adjustments for Qualifying Generators

- **Entry adjustments for Year 3 WSR:**
  - KCE NY 6 ESR
  - Janis Solar
  - Puckett Solar
  - Lachute Hydro
  - Eight Point WT PWR
  - Baron Winds WT PWR
  - Number Three WT PWR
  - Albany LFGE
  - Darby Solar
  - Grissom Solar
  - Regan Solar
- **Exit Adjustments for Year 3 WSR:**
  - Hudson Ave 5
  - Hudson Ave 3
  - 74th St. GT 1
  - 74th St. GT 2
  - Gowanus 4-1 to 4-8
  - Gowanus 1-1 to 1-7
  - Ravenswood GT 10
  - Astoria GT 2-1 to 2-4
  - Astoria GT 3-1 to 3-4
  - Astoria GT 4-1 to 4-4
  - Northport GT 01
  - Port Jefferson GT 01

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2024 - 2025 WSR Ratio Values

Three-year average WSR	2023-2024 CY	2024-2025 CY Annual Update
NYCA	1.032	1.033
GHIJ	1.063	1.058
NYC	1.076	1.067
LI	1.082	1.072

One-year WSR	2022 - 2023 (Year 3)	2021 - 2022 (Year 2)	2020 - 2021 (Year 1)	2019-2020 Rolled Off
NYCA	1.030	1.035	1.033	1.027
GHIJ	1.044	1.062	1.067	1.060
NYC	1.048	1.073	1.081	1.074
LI	1.047	1.085	1.084	1.076

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Gross CONE Composite Escalation Factor

Gross CONE Escalation Factor Process

- **Update escalation factor indices in the demand curve model**
  - Materials, Labor, and Turbine costs
    - Source: Bureau of Labor Statistics
  - General/non-EPC cost index
    - Source: Bureau of Economic Analysis
      - Updated GDP Deflator index from a 2012 base year to 2017
        - » Bureau of Economic Analysis rebases real measures as part of its Comprehensive Updates that generally occur every 4-5 years
- **Use most recently available data published as of October 1st**
  - Preliminary values and missing data are not used
  - May include revisions by the index publisher to a prior year's data values that are re-used in the current calculation

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Gross CONE Escalation Factor Process

- Process for determining the change for each factor is described in MST 5.14.1.2.2.1
- Change is measured based on the difference between index values from the "baseline period" (represents the periods with the most current values as October 1, 2020) to the current period (data as of October 1, 2023)
  - Results represent the change for each factor over the duration of the reset period completed as of each annual update
- To maintain consistency with measuring the change from the baseline period, the resulting composite escalation factor determined in each annual update is applied to the Gross CONE values used in establishing the ICAP Demand Curves for the first year of each reset period
  - These initial Gross CONE values are set forth in the table in MST 5.14.1.2.2.3

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Material Cost Index

Materials Cost Index

Source:	BLS Producer Price Index - Commodities
Seasonal:	Not Seasonally Adjusted
Series Id:	WPUID612
Group:	(ID6) Intermediate demand by commodity type
Item:	(12) Materials and components for construction
Base Date:	198200
Years:	2010 to 2023
Access:	http://data.bls.gov/cgi-bin/dsrv?wp

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	202.3	203.5	204.6	206.1	207.4	206.6	206.3	206.2	205.9	205.9	206.3	207.0
2011	208.3	209.5	210.9	212.1	212.8	213.7	214.7	214.6	214.5	214.4	214.2	214.2
2012	215.3	216.9	217.4	218.3	219.1	219.2	218.5	218.7	219.2	219.1	219.5	219.9
2013	221.2	222.2	222.7	223.4	222.9	222.6	222.4	223.0	222.9	222.9	223.0	223.1
2014	224.8	225.8	226.6	226.9	227.4	227.4	227.7	228.2	228.5	228.6	228.5	228.4
2015	229.0	229.1	229.1	229.4	229.1	229.0	228.8	228.0	227.5	227.7	227.6	227.2
2016	227.5	227.5	227.8	228.3	228.7	229.1	229.7	230.3	230.0	229.7	229.7	230.1
2017	231.5	232.5	233.2	234.4	234.6	234.8	234.7	235.6	236.0	237.0	237.5	237.7
2018	239.7	241.2	244.3	245.4	248.1	249.0	249.4	249.2	249.6	249.6	249.1	249.7
2019	250.7	251.5	251.2	251.9	251.7	251.2	252.3	251.3	251.1	250.8	250.8	250.8
2020	252.1	252.8	254.3	252.9	252.8	253.8	255.3	258.8	263.2	262.5	261.4	263.4
2021	269.1	273.8	280.4	288.1	298.4	306	306.649	306.394	307.483	311.36	316.861	322.954
2022	334.225	340.583	347.214	348.764	351.756	351.005	351.767	353.142	351.515	350.185	348.774	347.45
2023	349.592	349.622	351.214	351.295	*351.276*	*350.917*	*351.86*	*351.689*				

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Construction Labor Cost Index

Construction Labor Cost Index

Source:	BLS Quarterly Census of Employment and Wages
Series Id:	ENU360005052371
State:	New York
Area:	New York -- Statewide
Industry:	NAICS 2371 Utility system construction
Owner:	Private
Size	All establishment sizes
Type	Average Annual Pay
Years:	2010 to 2022
Access:	http://data.bls.gov/cgi-bin/dsrv?en

Year	Annual
2010	78,635
2011	79,665
2012	87,406
2013	88,850
2014	92,531
2015	97,529
2016	102,788
2017	101,108
2018	105,039
2019	107,893
2020	105,547
2021	106,961
2022	112,634
2023	

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Turbine Cost Index

Gas and Steam Turbine Index

Source:	BLS Producer Price Index - Commodities
Seasonal:	Not Seasonally Adjusted
Group:	(11) Machinery and Equipment
Item:	(97) Turbines and Turbine Generator Sets
Series ID:	WPU1197
Base Date:	198706
Years:	2010 to 2023
Access:	http://data.bls.gov/cgi-bin/dsrv?wp

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	222.9	221.2	220.2	220.5	221.6	221.5	221.8	222.1	221.9	223.0	223.0	223.8
2011	225.5	224.9	224.5	225.7	227.7	228.8	225.9	224.2	226.0	223.7	221.7	223.5
2012	218.9	220.0	222.1	222.3	224.3	225.2	225.4	224.4	222.9	225.1	226.2	225.7
2013	225.4	225.4	226.3	226.4	227.2	226.6	228.8	227.8	229.1	229.0	232.0	231.7
2014	230.8	231.2	232.7	232.2	231.7	232.2	231.6	233.6	236.1	237.2	237.5	238.5
2015	229.7	230.9	234.4	230.9	231.7	227.9	233.5	230.0	232.9	232.8	232.4	233.1
2016	231.9	232.2	232.5	231.2	231.4	233.2	233.5	232.7	232.5	N/A	N/A	N/A
2017	N/A	224.3	223.9	223.4	223.5	227.7	225.6	225.8	225.8	224.5	217.5	211.6
2018	210.1	215.1	221.0	221.0	219.4	219.7	219.8	221.4	221.0	224.4	225.9	228.8
2019	229.4	231.0	231.1	231.6	232.7	233.3	233.7	234.4	234.8	234.3	234.9	236.3
2020	237.8	238.4	238.9	238.9	239.5	241.3	242.0	241.4	241.2	241.6	242.3	242.7
2021	243.1	243.8	244.2	244.5	247.1	246.7	247.138	246.826	248.932	249.63	250.015	250.701
2022	253.184	252.358	255.324	256.792	257.169	258.169	257.389	255.179	253.476	253.822	254.347	255.002
2023	255.701	256.383	266.493	267.066	*267.598*	*267.106*	*261.623*	*266.816*				

Note: BLS has not released data in months with the value "NA".

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General/Non-EPC Cost Index

Non-EPC Cost Index

Source:	Bureau of Economic Analysis: Gross Domestic Product Implicit Price Deflator, Index 2017 = 100.
Seasonal:	Seasonally Adjusted
Timing:	Quarterly
Table:	1.1.9
Table Location:	Line 1
Access:	https://apps.bea.gov/iTable/iTable.cfm?reqid=19&step=3&isuri=1&1921=survey&1903=11#reqid=19&

	Quarter			
Year	I	II	III	IV
2010	89.036	89.471	89.743	90.264
2011	90.726	91.326	91.876	91.985
2012	92.525	92.907	93.417	93.885
2013	94.258	94.461	94.924	95.426
2014	95.788	96.33	96.726	96.822
2015	96.769	97.325	97.583	97.581
2016	97.496	98.159	98.41	98.886
2017	99.39	99.65	100.162	100.778
2018	101.419	102.136	102.577	103.019
2019	103.375	103.888	104.211	104.541
2020	105.037	104.614	105.538	106.275
2021	107.668	109.305	110.92	112.848
2022	115.135	117.671	118.962	120.093
2023	121.261	121.766		

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2024 - 2025 Composite Escalation Factors

- **NYCA**

		Construction Labor Cost	Materials Cost	Gas and Steam Turbine Cost	GDP Deflator
Base Year	[A]	107,893	253	239	104.6
Escalation Year	[B]	112,634	351	263	121.8
Growth Rate	[B]/[A]-1	4.39%	38.44%	10.30%	16.40%
Weights (By Technology)		24%	19%	32%	25%
Escalation Factor:		24%*4.39% + 19%*38.44% + 32%*10.30% + 25%*16.40% = **15.89%**			

- **GHIJ, NYC, LI**

		Construction Labor Cost	Materials Cost	Gas and Steam Turbine Cost	GDP Deflator
Base Year	[A]	107,893	253	239	104.6
Escalation Year	[B]	112,634	351	263	121.8
Growth Rate	[B]/[A]-1	4.39%	38.44%	10.30%	16.40%
Weights (By Technology)		27%	23%	26%	24%
Escalation Factor:		27%*4.39% + 23%*38.44% + 26%*10.30% + 24%*16.40% = **16.66%**			

Note: Values in the table for each index are rounded, while the calculation uses unrounded values. Different weighting factors apply to the NYCA ICAP Demand Curve due to its use of a different technology design (gas-only, GE 7HA.02 [15 ppm] without SCR emissions controls) compared to the technology design used for all other ICAP Demand Curves (dual-fuel, GE 7HA.02 [25 ppm] with SCR emissions controls)

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2024 - 2025 Gross CONE Values

	2021-2022 Gross CONE ($/kW-year)[3]	2024-2025 Escalation Factor [1]	2024-2025 Gross CONE ($/kW-year)	2023-2024 Gross CONE ($/kW-year)[2]
NYCA	$114.75	15.89%	**$132.98**	$128.65
G-J	$149.78	16.66%	**$174.72**	$169.07
NYC	$196.41		**$229.11**	$221.70
LI	$159.77		**$186.37**	$180.34

1. *2024-2025 escalation factors are applied to the Gross CONE values underlying the 2021-2022 ICAP Demand Curves*
2. *Gross CONE values underlying the 2023-2024 ICAP Demand Curves with a 17-year amortization period (far right column) are shown for informational purposes.*
3. *The 2021-2022 Gross CONE 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.*

Note: Values in the table for each composite escalation factor are rounded, while the calculation uses unrounded values.

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Net Energy and Ancillary Services Revenue Offset

Net EAS Revenue Offset Update Process

- **Collect data from September 1, 2022 – August 31, 2023**
  - NYISO DAM and RTM LBMPs
  - NYISO DAM and RTM Time-Weighted Ancillary Services prices
  - NYISO Rate Schedule 1 charges
  - Fuel and emission costs
    - Natural gas fuel cost assumptions
      - NYCA [Load Zone C]: Niagara [December-March]; TGP Zone 4 (200 leg) [April-November]
      - GHIJ [Load Zone G (Rockland County)]: TETCO M3
      - NYC [Load Zone J]: Transco Zone 6 (NY)
      - LI [Load Zone K]: Iroquois Zone 2
- **Run Net EAS model with new data**
  - Model runs for three-year historical period (Sep 1, 2020 – Aug 31, 2023)
  - Detailed results in the Appendix of this presentation

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2024–2025 Net EAS Revenue Values

- **Increases in average Net EAS revenues in NYCA, GHIJ, NYC, LI can be primarily attributed to higher LBMPs in the 2022-2023 period added for this update (particularly December 2022 and February 2023) as compared to the 2019-2020 period that was rolled off from the three-year historical data set.**
  - The model year of 9/1/2021 - 8/31/2022 had higher Net EAS revenue than 9/1/2022 - 8/31/2023 due to High LBMPs in January 2022 – February 2022 which are attributed to extremely cold temperatures.
  - Data from 9/1/2019 - 8/31/2020 was rolled off for purposes of this annual update and replaced with data from 9/1/2022 - 8/31/2023.

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Raw Net EAS Revenues

	2023 - 2024 Raw Net EAS Revenues ($/kW-year)	2024 - 2025 Raw Net EAS Revenues ($/kW-year)	Delta (2024 - 2025) – (2023 - 2024)
NYCA	$38.83	$52.38	$ 13.55
G-J	$63.37	$84.04	$ 20.67
NYC	$49.85	$68.10	$ 18.25
LI	$88.68	$110.29	$ 21.61

Note: "Raw" values do not include the $2.04/kW-year adder for estimated voltage support service (VSS) revenue and are not escalated to dollar values for the applicable Capability Year to which the ICAP Demand Curves are effective.
"Raw Net EAS Revenues" = annual average Net EAS revenues for the relevant historical 3-year period prior to: (1) addition of VSS adder; and (2) escalation

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Net EAS Escalation

- Net EAS revenues are escalated using the unweighted annual change in the general component (GDP Deflator) from the Gross CONE composite escalation factor over the three-year historical data period.
- The Net EAS escalation rate is the change in the GDP Deflator over the nominal period covered by the historical data, measured as the change from the oldest year (2021) to the most recent year (2023) of such nominal period
  - Growth rate for the GDP Deflator is measured over the three-year historic data period in order to bring the average dollar value to a proxy measure for the upcoming Capability Year (see Slide 20 for historical GDP Deflator data)

$$\left[\frac{GDP\ Deflator\ (2023)}{GDP\ Deflator\ (2021)} - 1\right] = \left[\frac{121.766}{109.305} - 1\right] = 11.40\%$$

- The Net EAS escalation rate is 11.40%

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	2024-2025 Raw Net EAS Revenues ($/kW-year)	2024-2025 Net EAS Revenues (w/ VSS Adder $2.04)	EAS Escalation Rate	2024-2025 Final Net EAS Revenues ($/kW-year)
NYCA	$52.38	$54.42	11.40%	$60.63
G-J	$84.04	$86.08		$95.90
NYC	$68.10	$70.14		$78.13
LI	$110.29	$112.33		$125.14

Note: Values in the table for are rounded, while the calculation uses unrounded values.

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2024 -2025 ICAP Demand Curve Reference Points

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.*

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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.

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ICAP to UCAP Translation

- Starting with the 2024-2025 ICAP Demand Curves, the ICAP reference points will be translated into UCAP terms based on the applicable peaking plant's CAF and unit specific derating factor.
- $$UCAP\ reference\ point = \frac{ICAP\ reference\ point}{CAF * (1 - Derating\ Factor)}$$
- The 2024-2025 ICAP Demand Curve ICAP MW requirements will be translated to UCAP MW requirements quantity to be calculated using the applicable NYCA or locality translation factor
- $$UCAP\ MW\ Requirement = ICAP\ MW Requirement * (1 - Translation\ factor)$$

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ICAP to UCAP Translation

- **Example**
  - Given the following hypothetical assumptions for illustrative purposes only
    - ICAP reference point = $10
    - Unit specific derating factor = .05
    - CAF = .98
    - ICAP MW Requirement = 9,000 MW
    - Applicable NYCA or locality translation factor = .10

$$UCAP\ reference\ point = \frac{ICAP\ reference\ point}{CAF*(1-Derating\ Factor)} = \frac{10}{.98*(1-.05)} = \$10.74$$

$$UCAP\ MW\ Requirement = ICAP\ MW\ Requirement * (1-Translation\ factor)$$
$$= 9{,}000\ MW * (1-.10) = 8{,}100\ MW$$

** Per normal procedures system translation factors and CAFs will not be calculated until spring of 2024.*

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Next Steps

Next Steps

- **Updated ICAP Demand Curve reference point values become effective for the 2024-2025 Capability Year (beginning May 1, 2024)**
- **Data and results posted on the NYISO website**
  - Available on the “Installed Capacity Market (ICAP)” section of the NYISO public website at:
    - https://www.nyiso.com/installed-capacity-market
    - “Reference Documents” > “Demand Curve Reset Annual Updates” > “2024”

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Questions?

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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Appendix

Net EAS Revenue Update Summary

Load Zone		Annual Average Net EAS Revenues ($/kW-year)	Annual Average Run Hours	Annual Average Unit Starts	Annual Average Hours per Start
C	Upstate	$54.42	942	59	16.0
G	G-J	$86.08	2,496	104	24.0
J	NYC	$70.14	2,394	129	18.5
K	Long Island	$112.33	2,978	187	16.0

Note: Annual average revenue values include the $2.04/kW-year adder for estimated voltage support service (VSS) revenue

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Fuel Type by Year

September, 2020 - August, 2021								
		Run-Time Hours			Net Energy Revenues ($/kW-year)		
Load Zone		Gas	Oil	Total	Gas	Oil	Total
C	Upstate	706	-	706	$11.61	-	$11.61
G	G-J	1,482	-	1,482	$23.27	-	$23.27
J	NYC	1,500	-	1,500	$24.61	-	$24.61
K	Long Island	3,064	-	3,064	$79.13	-	$79.13

September, 2021 - August, 2022								
		Run-Time Hours			Net Energy Revenues ($/kW-year)		
Load Zone		Gas	Oil	Total	Gas	Oil	Total
C	Upstate	1,060	-	1,060	$64.99	-	$64.99
G	G-J	3,064	-	3,064	$123.43	-	$123.43
J	NYC	3,063	-	3,063	$82.12	-	$82.12
K	Long Island	3,006	57	3,063	$114.67	$4.38	$119.05

September, 2022 - August, 2023								
		Run-Time Hours			Net Energy Revenues ($/kW-year)		
Load Zone		Gas	Oil	Total	Gas	Oil	Total
C	Upstate	1,059	-	1,059	$39.41	-	$39.41
G	G-J	2,940	1	2,941	$55.54	$0.26	$55.80
J	NYC	2,585	35	2,620	$42.53	$6.96	$49.49
K	Long Island	2,750	57	2,807	$65.93	$10.07	$76.00

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Net EAS Results by Year

Net EAS Revenues September, 2020 - August, 2021 ($/kW-yr)															
Day-Ahead Commitment		Energy				Reserve				None				Total	Total with Adders (VSS, AS)
Real-Time Dispatch		Energy	Reserve	Buyout	Limited	Energy	Reserve	Buyout	Limited	Energy	Reserve	None	Limited		
C	Upstate	$7.12	$0.41	$2.85	$0.00	$4.38	$0.12	$9.68	$0.00	$0.11	$0.00	$0.00	$0.00	$24.67	$26.71
G	G-J	$19.36	$1.37	$1.95	$0.00	$3.91	$0.17	$8.98	$0.00	$0.00	$0.00	$0.00	$0.00	$35.74	$37.78
J	NYC	$21.61	$0.00	$0.81	$0.00	$3.00	$0.23	$9.06	$0.00	$0.00	$0.00	$0.00	$0.00	$34.70	$36.74
K	Long Island	$70.10	$0.00	$4.06	$1.11	$8.98	$0.13	$6.48	$0.02	$0.05	$0.00	$0.00	$0.00	$90.93	$92.97

Net EAS Revenues September, 2021 - August, 2022 ($/kW-yr)															
Day-Ahead Commitment		Energy				Reserve				None				Total	Total with Adders (VSS, AS)
Real-Time Dispatch		Energy	Reserve	Buyout	Limited	Energy	Reserve	Buyout	Limited	Energy	Reserve	None	Limited		
C	Upstate	$55.96	$0.63	$4.17	$0.97	$7.66	$0.02	$2.81	$0.12	$1.37	$0.07	$0.00	$0.00	$73.79	$75.83
G	G-J	$117.63	$0.00	$5.15	$1.60	$5.80	$0.13	$9.54	$0.04	$0.00	$0.00	$0.00	$0.00	$139.88	$141.92
J	NYC	$76.47	$0.00	$1.74	$0.07	$5.65	$0.56	$13.31	$0.01	$0.00	$0.00	$0.00	$0.00	$97.80	$99.84
K	Long Island	$102.32	$0.76	$2.71	$2.84	$16.74	$0.54	$14.78	$0.14	$0.00	$0.00	$0.00	$0.00	$140.82	$142.86

Net EAS Revenues September, 2022 - August, 2023 ($/kW-yr)															
Day-Ahead Commitment		Energy				Reserve				None				Total	Total with Adders (VSS, AS)
Real-Time Dispatch		Energy	Reserve	Buyout	Limited	Energy	Reserve	Buyout	Limited	Energy	Reserve	None	Limited		
C	Upstate	$30.92	$0.00	$2.71	$0.72	$7.91	$0.28	$15.48	$0.07	$0.58	$0.03	$0.00	$0.00	$58.69	$60.73
G	G-J	$46.88	$0.34	$3.08	$0.00	$8.92	$0.62	$16.67	$0.00	$0.00	$0.00	$0.00	$0.00	$76.51	$78.55
J	NYC	$39.05	$0.00	$1.94	$0.00	$10.44	$1.96	$18.39	$0.00	$0.00	$0.00	$0.00	$0.00	$71.78	$73.82
K	Long Island	$50.04	$0.47	$4.23	$0.00	$25.96	$1.30	$17.12	$0.00	$0.00	$0.00	$0.00	$0.00	$99.12	$101.16

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Run Hours by Year

Run Hours September, 2020 - August, 2021														
Day-Ahead Commitment		Energy				Reserve				None				Total
Real-Time Dispatch		Energy	Reserve	Buyout	Limited	Energy	Reserve	Buyout	Limited	Energy	Reserve	None	Limited	
C	Upstate	533	16	173	0	156	46	6,737	0	17	0	1,082	0	8,760
G	G-J	1,268	49	176	0	214	69	6,749	0	0	0	235	0	8,760
J	NYC	1,345	0	115	0	155	106	6,796	0	0	0	243	0	8,760
K	Long Island	2,808	0	251	694	251	44	4,547	14	5	0	146	0	8,760

Run Hours September, 2021 - August, 2022														
Day-Ahead Commitment		Energy				Reserve				None				Total
Real-Time Dispatch		Energy	Reserve	Buyout	Limited	Energy	Reserve	Buyout	Limited	Energy	Reserve	None	Limited	
C	Upstate	885	27	224	533	136	18	2,084	73	39	7	4,693	41	8,760
G	G-J	2,844	0	358	516	220	34	4,769	19	0	0	0	0	8,760
J	NYC	2,896	0	118	22	167	106	5,448	3	0	0	0	0	8,760
K	Long Island	2,794	46	172	901	269	67	4,478	33	0	0	0	0	8,760

Run Hours September, 2022 - August, 2023														
Day-Ahead Commitment		Energy				Reserve				None				Total
Real-Time Dispatch		Energy	Reserve	Buyout	Limited	Energy	Reserve	Buyout	Limited	Energy	Reserve	None	Limited	
C	Upstate	744	0	177	209	290	70	6,141	42	25	3	1,059	0	8,760
G	G-J	2,641	17	269	0	300	151	5,382	0	0	0	0	0	8,760
J	NYC	2,398	0	151	0	222	331	5,658	0	0	0	0	0	8,760
K	Long Island	2,502	23	227	0	305	242	5,461	0	0	0	0	0	8,760

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