

Demand Response: Preliminary Model Values for 2024 IRM Studies

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Agenda

- **Background**
- **Preliminary SCR model values for 2024 IRM studies**
- **Next steps**
- **Appendix I - Description of ICS Adjustment Factors**
- **Appendix II - Modeling Improvements for Capacity Accreditation**

Background

Overview of the SCR zonal performance factor calculation methodology as accepted at the 5/4/2016 ICS meeting

Background

- **NYISO calculates SCR zonal performance factors for IRM studies based on historical SCR performance.**

The data set includes:

- All event hours, by zone, for each mandatory event from the most recent five years in which a mandatory event was initiated by the NYISO (but not older than summer 2012)
- All performance test hours accumulated during the above timeframe even when there were no mandatory events
 - 2024 IRM study data set includes all event hours from mandatory events and performance tests from Summer 2012 through Summer 2022

- **ICS applies additional adjustment factors (see Appendix for details)**

- Translation Factor
- Fatigue Factor

Effective Performance Factor = Zonal Performance Factor * Translation Factor * Fatigue Factor

SCR Model Value MW = SCR ICAP MW * Effective Performance Factor

Preliminary SCR Model Values

***Based on Gold Book estimates for SCR ICAP MW
before actual July 2023 enrollment information is
available**

Inputs for 2024 IRM Studies

- **Additional inputs since 2023 IRM studies**
 - Winter 2021-2022 and Summer 2022 SCR Performance Test hours – total of 2 hours
 - Summer 2022 SCR Event hours – total of 13 hours
- **The data set consists of**
 - All event hours, by zone, from mandatory events from Summer 2012 through Summer 2022
 - Range from 20 event hours for Zone A to 82 event hours for Zone K
 - All performance test hours from Summer 2012 through Summer 2022
 - 21 Performance Test hours

For 2024 IRM - Preliminary SCR Model Values

Program	Super Zone	Superzone Performance Factor	ICS Adjustment Factors		Effective Performance Factor	SCR ICAP MW based on July 2022	Final Model Values MW
			ACL to CBL Factor	Fatigue Factor			
SCR	A-F	87.3%	92.9%	100%	81.1%	694.5	563.5
SCR	G-I	77.4%	84.2%	100%	65.1%	79.1	51.5
SCR	J	70.6%	74.5%	100%	52.6%	418.6	220.2
SCR	K	69.8%	76.2%	100%	53.2%	33.7	17.9
Total						1226.0	853.1
							69.6%

Comparison of 2024 with 2023 SCR Values

For 2024 IRM - Preliminary SCR Model Values					For 2023 IRM - Final SCR Model Values			Comparison of 2024 with 2023 IRM		
Program	Super Zone	Effective Performance Factor	SCR ICAP MW based on July 2022 Enrollment Data*	Final Model Values MW	Effective Performance Factor	July 2022 MW	Final Model Values MW	Effective Performance Factor	SCR ICAP MW	Model Value MW
SCR	A-F	81.1%	694.5	563.5	81.7%	694.5	567.7	-0.6%	0.0	-4.2
SCR	G-I	65.1%	79.1	51.5	64.7%	79.1	51.2	0.4%	0.0	0.4
SCR	J	52.6%	418.6	220.2	52.5%	417.5	219.1	0.1%	1.1	1.0
SCR	K	53.2%	33.7	17.9	53.1%	33.7	17.9	0.1%	0.0	0.0
Total			1226.0	853.1		1224.8	855.9		1.2	-2.8
				69.6%			69.9%			-0.3%

*Differences in data in this column due to software rounding updates since the 2023 IRM. Updated data aligns with 2023 Gold Book values.

- Minor change in Effective Performance Factor for Zone F due to the inclusion of multiple Zone F events since 2023 IRM SCR values were finalized

Next Steps

- Replace Gold Book SCR ICAP MW estimates with actual July 2023 enrollments once they become available

Appendix I – Description of ICS Adjustment Factors

SCR Baselines

■ Average Coincident Load (ACL):

- Capacity Baseline for resources participating in the SCR program
- Required for all resources participating in the SCR Program
- Used for Capacity Market participation

■ Customer Baseline Load (CBL):

- Energy Baseline for resources participating the SCR programs
- Optional submission following a NYISO Test or Event
- Used for Energy Payments

Comparison - 2024 vs 2023 ACL to CBL Translation Factor

Program	Zone	2024	2023	Difference
SCR	A-F	92.9%	93.6%	-0.7%
SCR	G-I	84.2%	84.2%	0.0%
SCR	J	74.5%	74.4%	0.0%
SCR	K	76.2%	76.3%	-0.1%

SCR Adjustment Factors used in IRM Studies

■ Translation Factor (ACL to CBL)

- The Translation Factor is used to adjust performance based on ACL baseline to a CBL equivalent
- Transition from fixed to calculated Translation Factor established during 9/5/2018 ICS Meeting
- Calculated value from same data set used for Zonal Performance Factors
- Only uses responses from resources reporting their CBL

■ Fatigue Factor

- The Fatigue Factor is applied to address concerns that fatigue may occur if SCRs are deployed frequently
- Current value of Fatigue Factor is 1.00

Appendix II – Modeling Improvements for Capacity Accreditation

Modeling Improvements for Capacity Accreditation

- As part of the NYISO's Modeling Improvements for Capacity Accreditation project, the NYISO and GE Energy Consulting are testing alternative techniques for modeling SCRs in the IRM model.
- At the conclusion of this testing, the NYISO will present any recommended SCR modeling changes to ICS for consideration in next year's IRM study.

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