Demand Response: Preliminary Model Values for 2020 IRM Studies

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Agenda

- Background
- Preliminary SCR model values for 2020 IRM studies
- Next steps
- Appendix
  - Description of ICS adjustment factors

Background

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

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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
    - 2020 IRM study data set includes all event hours from mandatory events and performance tests from Summer 2012 through Summer 2018
- **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 2019 enrollment information is available

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Inputs for 2020 IRM Studies

- **Additional inputs since 2019 IRM studies**
  - Winter 2017-2018 and Summer 2018 SCR performance test hours – total of 2 hours
  - Summer 2018 Zone J SCR Events hours –13 hours
- **The data set consists of**
  - All event hours, by zone, from mandatory events from summer 2012 through summer 2018
    - Range from 20 event hours for Zone A to 64 event hours for Zone J
  - All performance test hours from summer 2012 through summer 2018
    - 13 performance test hours

FOR 2020 IRM - Preliminary SCR Model Values

Program	Super Zone	Superzone Performance Factor	ICS Adjustment Factors		Effective Performance Factor	SCR ICAP MW based on July 2018 Enrollment	Preliminary Model Values MW
			ACL to CBL Factor	Fatigue Factor			
SCR	A-F	86.8%	94.1%	100%	81.7%	655.1	535.2
SCR	G-I	75.6%	85.1%	100%	64.3%	111.4	71.6
SCR	J	69.1%	75.3%	100%	52.0%	494.1	256.9
SCR	K	71.8%	82.3%	100%	59.1%	48.5	28.7
Total						**1309.1**	**892.5**
							68.2%

Comparison of 2020 with 2019 SCR Values

FOR 2020 IRM - Preliminary SCR Model Values					2019 IRM - Final SCR Model Values			Comparison of 2020 with 2019 IRM		
Program	Super Zone	Effective Performance Factor	SCR ICAP MW based on Gold Book Estimate (July 2018 Enrollment Data)	Final Model Value MW	Effective Performance Factor	July 2018 MW	Final Model Value MW	Effective Performance Factor	July 2018 MW	Model Value MW
SCR	A-F	81.7%	655.1	535.2	80.6%	655.1	528.2	1.1%	0.0	7.0
SCR	G-I	64.3%	111.4	71.6	63.9%	111.4	71.1	0.4%	0.0	0.5
SCR	J	52.0%	494.1	256.9	55.5%	494.1	274.5	-3.5%	0.0	-17.6
SCR	K	59.1%	48.5	28.7	59.7%	48.5	28.9	-0.6%	0.0	-0.2
Total			**1309.1**	**892.5**		**1309.1**	**902.8**		**0.0**	**-10.3**
				68.2%			**69.0%**			**-0.8%**

No significant change in Effective Performance Factor since 2019 IRM studies

Next Steps

- Replace Gold Book SCR ICAP MW estimates with actual July 2019 enrollments once they become available on July 08, 2019
- Update on the Event versus Event & Test performance analysis

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Appendix

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

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