

Proposed ICAP Manual Revisions Related to the Changes to Concepts for Provisional ACL Project

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NYISO, Rensselaer, NY

Agenda

- ◆ **Updates based on Stakeholder Feedback from 3/19 ICAPWG Meeting**
- ◆ **Additional Proposed ICAP Manual Revisions**
- ◆ **Technical Bulletin**
- ◆ **Next Steps**

Revisions Throughout the ICAP Manual

- ◆ **Global replacement of defined terms with the acronym of the term**
- ◆ **Ministerial changes**
- ◆ **Clarification of existing rules and requirements**

ICAP Manual Revisions for April 1st ICAPWG Meeting

- ◆ **Revisions made based on stakeholder feedback from the 2/19, 2/28, and 3/19 ICAPWG meetings are highlighted in GRAY**
- ◆ **New revisions made for the 4/1 ICAPWG are highlighted in YELLOW**

Stakeholder Feedback to Sections:

- ◆ **4.12.2 General Requirements**
 - *Attestation Form*
 - *Assignment of Performance Factors*
 - *New SCR in a Mitigated Capacity Zone*
 - *SCRs with Local Generators*
- ◆ **4.12.4 Performance Obligations**
- ◆ **4.12.4.2 Provisional Average Coincident Load**
- ◆ **4.12.4.3 Change to ACL**
- ◆ **4.12.4.4 Use of Generation by a SCR**
- ◆ **4.12.4.5 Testing of SCRs**
- ◆ **4.12.4.9 Adjustments Affecting SCR Load Zone Peak Hours**

New Revisions to Sections:

- ◆ **4.12.2.1 Determination of ICAP, Performance Factors, UCAP, and ICAP Equivalent**
- ◆ **4.12.4.6 Shortfall for RIP Portfolio Performance**
- ◆ **4.12.6 Capacity Adjustment Procedures**
- ◆ **4.3.3.5 Procedures for Determining Fluctuations in Load Attributed to Weather**

Attestation Form

- ◆ **Based on stakeholder feedback regarding insufficient time for RIPs to comply with the requirements of the attestation form for Summer 2014, the NYISO has removed proposed revisions related to the attestation form in this round of proposed ICAP Manual changes and corresponding interim Technical Bulletin 226**
 - *The NYISO has restored existing ICAP Manual language related to RIP certification when enrolling a SCR that was proposed to be deleted*
- ◆ **The NYISO will continue discussions in the stakeholder process on the requirements for RIPs to certify a SCR's participation**

4.12.2 General Requirements

- ◆ **Assignment of Performance Factors**
 - *Removed high-level description of calculations of RIP, SCR program, and SCR Aggregation performance factors and replaced with cross-references to the applicable calculations in Section 4.12.2.1, based on stakeholder feedback*
- ◆ **New SCR in a Mitigated Capacity Zone**
 - *Revised to reflect tariff language in Services Tariff Section 23.4.5.7.5*
- ◆ **SCRs with Local Generators**
 - *Moved language previously marked for deletion to the first paragraph*
 - *Removed proposed revisions related to the attestation form based on stakeholder feedback*

4.12.2.1 Determination of ICAP, Performance Factors, UCAP, and ICAP Equivalent

- ◆ Renamed section heading
- ◆ Added subsections for specific calculations
 - *4.12.2.1.1 SCR ICAP*
 - *4.12.2.1.2 SCR Performance Factors*
 - *4.12.2.1.3 RIP Performance Factor*
 - *4.12.2.1.4 SCR Program Performance Factor*
 - *4.12.2.1.5 SCR Aggregation Performance Factor*
 - *4.12.2.1.6 SCR Contribution to SCR Aggregation UCAP*
 - *4.12.2.1.7 SCR Aggregation UCAP*
 - *4.12.2.1.8 SCR ICAP Equivalent of the SCR UCAP Sales*

4.12.2.1 Determination of ICAP, Performance Factors, UCAP, and ICAP Equivalent - continued

- ◆ **Added descriptions for all calculations, clarified and replaced existing formulas by defining them in functional parts**
- ◆ **Removed all current language and formulas from Section 4.12.2.1**
- ◆ **Integrated Section 4.12.2.2 *Determining the Installed Capacity Equivalent of the Amount of UCAP Supplied* into the new Section 4.12.2.1**

4.12.4 Performance Obligations

- ◆ **Removed “is reported as the performance of the SCR” from the first paragraph based on stakeholder feedback**
 - *A SCR must be capable of making Energy available (i.e., take action, in response to the NYISO direction, that causes a measurable and verifiable reduction of Load from the New York State Transmission System and/or distribution system during an event or test ~~is reported as the performance of the SCR~~),*
- ◆ **Removed additional language based on stakeholder feedback**

4.12.4.2 Provisional Average Coincident Load

- ◆ **Ministerial revisions for clarity based on stakeholder feedback**
- ◆ **Revised tariff reference for failure to report required interval data for the Provisional ACL verification process**
- ◆ **Clarified that SCRs enrolled with a Provisional ACL may also be subject to potential sanctions**

4.12.4.3.1 Increase to ACL

- ◆ **Ministerial revisions for clarity based on stakeholder feedback**
- ◆ **Revised tariff reference for failure to report required interval data for the Incremental ACL verification process**
- ◆ **Clarified that SCRs enrolled with a Incremental ACL may also be subject to potential sanctions**

4.12.4.3.2 Decrease to ACL

- ◆ **Ministerial revisions for clarity based on stakeholder feedback**
- ◆ **Clarified that SCRs with a reported SCR Change of Status may also be subject to potential sanctions**

4.12.4.4 Use of Generation by a SCR and 4.12.4.5 Testing of SCRs

- ◆ **Ministerial revisions for clarity based on stakeholder feedback**

4.12.4.6 Shortfall for RIP Portfolio Performance

- ◆ **Renamed section heading to align with Services Tariff Section 5.14.2.3.4 Shortfall for RIP Portfolio Performance**
- ◆ **Relocated paragraph from Section 4.12.2 General Requirements describing the RIP Portfolio Performance**
- ◆ **Clarified description of how the RIP Portfolio Performance is determined**
- ◆ **Added procedure for determination of the RIP Portfolio Performance when the RIP is subject to multiple deficiency charges for the same SCR for the same months within the Capability Period**

4.12.4.9 Adjustments Affecting SCR Load Zone Peak Hours

- ◆ **Revised name of section heading and all subsection headings based on stakeholder feedback**
- ◆ **Revised tariff references in Sections 4.12.4.9.2 and 4.12.4.9.3**

4.12.6 Capacity Adjustment Procedures

- ◆ **Removed entire section**
 - *First paragraph: Incorporated into Section 4.12.2.1 Determination of ICAP, Performance Factors, UCAP, and ICAP Equivalent*
 - *Remaining paragraphs relate to two specific conditions under which the SCR performance factor will be affected for inability to respond to a mandatory event within two hours of notification or due to environmental permit limits. The consequences of both state that the performance factor of the SCR will be affected.*
 - **Other sections of the ICAP Manual relating to performance obligations of SCRs have been clarified, making this language redundant**

4.3.3.5 Procedures for Determining Fluctuations in Load Attributed to Weather

- ◆ Added section to describe procedures for a RIP to use in assessing whether or not a load reduction that meets the SCR Load Change Reporting Threshold is attributable to weather
- ◆ This procedure consists of:
 - *Identifying the historical relationship between the SCR Load kW and the temperature in the Prior Equivalent Capability Period*
 - *Calculating the weather adjusted Load kW for the current Capability Period*

SCR Load Change Reporting Threshold

- ◆ **Tariff requires RIPs to report SCR Change of Status**
 - **SCR Load Change Reporting Threshold: For a Special Case Resource with an applicable ACL greater than or equal to 500 kW, a reduction or increase in total Load **not attributable to fluctuations in Load due to weather as described in ISO Procedures**, that is equal to or greater than (i) thirty (30) percent of the applicable ACL for any month within the Capability Period, or (ii) five (5) MW in the NYC Locality or ten(10) MW if in any other Load Zone; whichever is less. For SCRs that elect to enroll with an Incremental ACL and do not increase the eligible Installed Capacity associated with the SCR, the RIP may enroll the SCR with a lower percentage change to its total Load increase as specified in Section 5.12.11.1.5 of this Services Tariff.**

Example of the Procedure for Identifying Fluctuations in Load Attributable to Weather

- ◆ This example assumes the following:
 - *Current Capability Period: Summer 2013*
 - *A SCR located in Buffalo, NY*
 - *Enrolled with ACL of 1050 kW for Summer 2013*
 - *SCR Change of Status reporting is required when total load drops to 735 kW or less for more than 60 days*

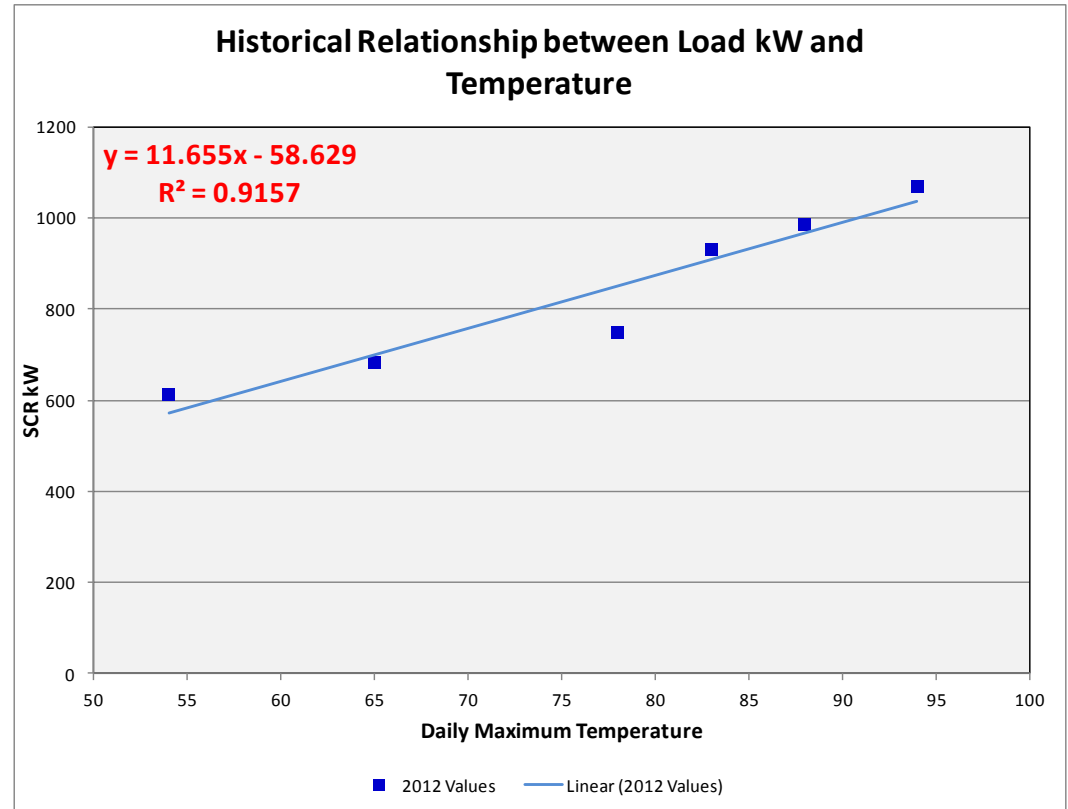
Procedural Steps 1.1 – 1.3

- ◆ **Weather station & temperature information is posted on the NYISO website at Markets & Operations → Market Data → Load Data**
- ◆ **The closest weather station to this SCR is “BUF”**
 - **For each month from the Prior Equivalent Capability Period, record the date, hour and load of the monthly peak between 11 am and 8 pm**
 - **Using the closest weather station to the SCR, record the max temperature for the monthly peak day of each month**

Year	Month	Date	Hour Beg	Temp (°F)	2012 Values
2012	May	5/17/2012	14	65	684
2012	June	6/22/2012	15	78	750
2012	July	7/25/2012	15	83	931
2012	August	8/3/2012	17	94	1070
2012	September	9/3/2012	15	88	985
2012	October	10/6/2012	14	54	613

Procedural Step 1.4

- Create a scatter plot in excel with temperature values on the x-axis and load kW values on the y-axis
- Add “Linear” trend line to this scatter chart. Select the excel options to “Display equation on chart” and “Display R-squared value on chart”.



- ◆ Stop if R^2 value is less than 0.70 – the load is not related to weather

Procedural Step 1.4 - Continued

- ◆ Additional data points between 11 am and 8 pm may be used to identify a better fit
- ◆ For a better fit, in addition to the monthly peaks, it is recommended that
 - *At least eight data points from*
 - 60 – 80 degree temperature range for the Summer Capability Period
 - 30 – 50 degree temperature range for the Winter Capability Period
 - *Top 40 peak hours (Capability Period SCR Load Zone Peak Hours)*

Procedural Steps 2.1 – 2.2

Year	Month	Date	Hour Beg	Temp (°F)	2013 Monthly Peak Load kW
2013	May	5/18/2013	15	65	358
2013	June	6/20/2013	15	67	556
2013	July	7/24/2013	19	80	870
2013	August	8/8/2013	18	91	890
2013	September	9/22/2013	16	73	723
2013	October	10/2/2013	15	68	680

- ◆ For each month from the current Capability Period, record the date, hour and load of the monthly peak between 11 am and 8 pm
- ◆ Using the closest weather station to the SCR, record the max temperature for the monthly peak day of each month

Procedural Step 2.3

Year	Month	Date	Hour Beg	Temp (°F)	2013 Monthly Peak Load kW	Weather Adjusted Monthly Peak Equation	Weather Adjusted Monthly Peak
2013	May	5/18/2013	15	65	358	=11.655 * 65 - 58.629	699
2013	June	6/20/2013	15	67	556	=11.655 * 67 - 58.630	722
2013	July	7/24/2013	19	80	870	=11.655 * 80 - 58.631	874
2013	August	8/8/2013	18	91	890	=11.655 * 91 - 58.632	1002
2013	September	9/22/2013	16	73	723	=11.655 * 73 - 58.633	792
2013	October	10/2/2013	15	68	680	=11.655 * 68 - 58.634	734

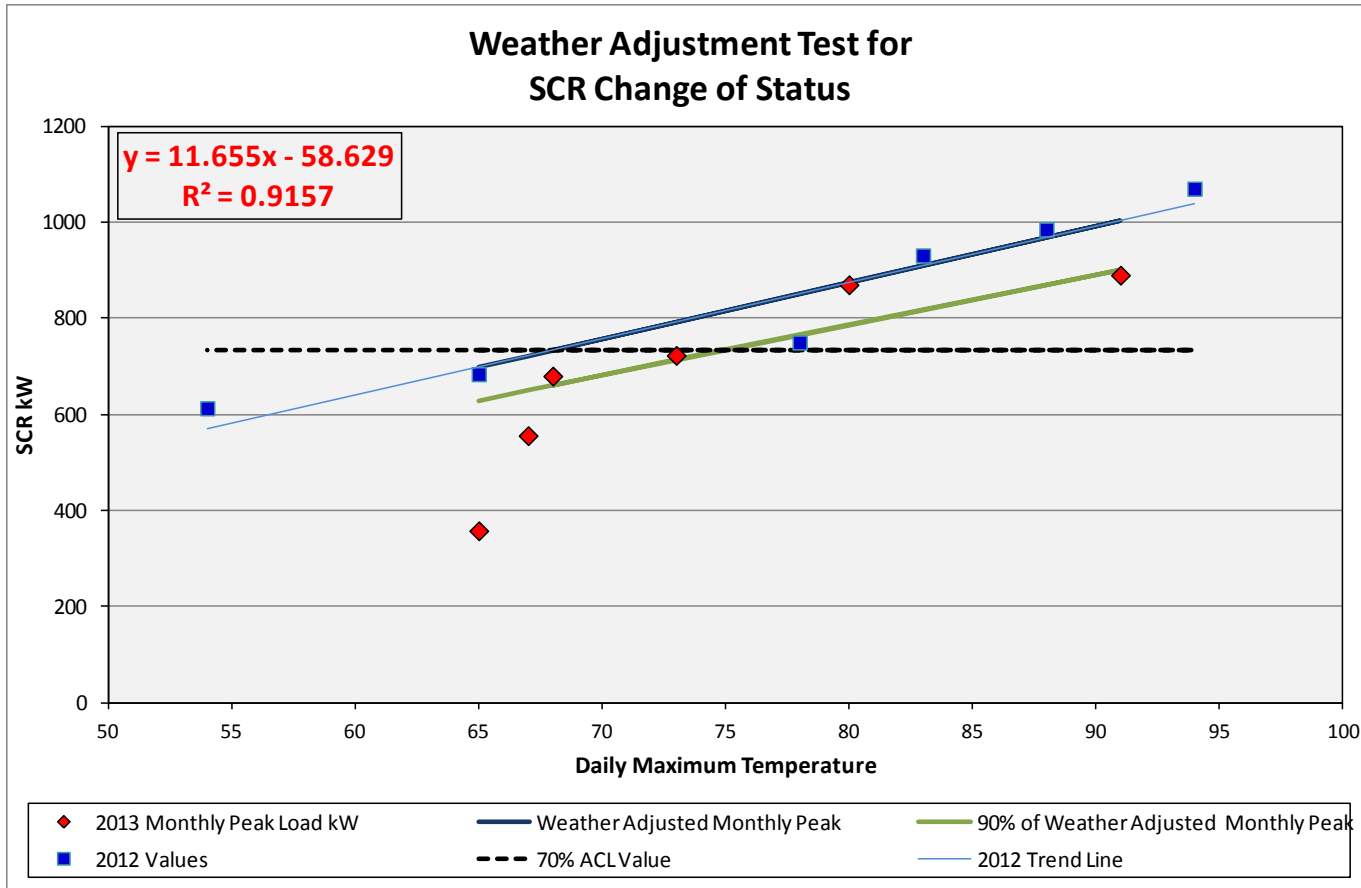
- ◆ For each month from the current Capability Period, calculate the weather adjusted monthly peak load using the equation from step 1.4

Procedural Steps 2.4 – 2.5

Year	Month	Date	Hour Beg	Temp (°F)	2013 Monthly Peak Load kW	Weather Adjusted Monthly Peak	90% of Weather Adjusted Monthly Peak	Load Reduction due to weather	70% ACL Value	70% ACL test for Change of Status
2013	May	5/18/2013	15	65	358	699	629	No	735	Report
2013	June	6/20/2013	15	67	556	722	650	No	735	Report
2013	July	7/24/2013	19	80	870	874	786	Yes	735	OK
2013	August	8/8/2013	18	91	890	1002	902	Yes	735	OK
2013	September	9/22/2013	16	73	723	792	713	Yes	735	OK
2013	October	10/2/2013	15	68	680	734	661	Yes	735	OK

- ◆ If monthly peak is greater than or equal to 90% of weather adjusted monthly peak, SCR load reduction may be due to weather
- ◆ If monthly peak is less than 90% of weather adjusted monthly peak, SCR load reduction is not due to weather. SCR Change of Status may need to reported.
- ◆ In this example, SCR load reduction in September and October 2013 is due to weather, and would have been required to report SCR Change of Status without the weather adjustment.

Procedural Steps 2.4 – 2.5 - Continued



- ◆ If monthly peak is less than 90% of weather adjusted monthly peak (green line), SCR load reduction is not due to weather

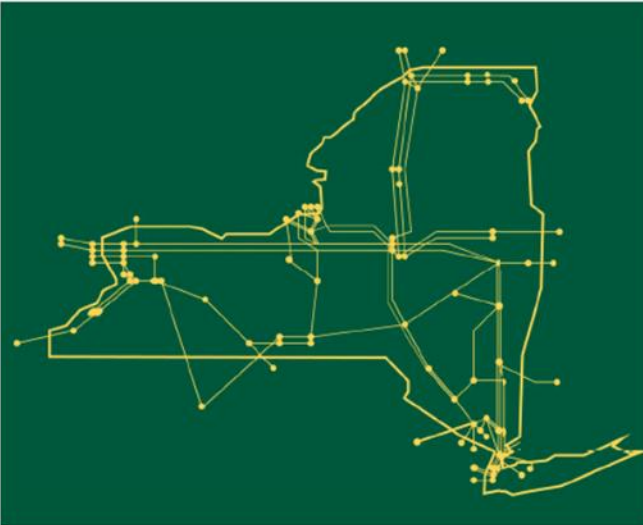
Technical Bulletin 226

- ◆ Will be updated to reflect changes presented and discussed today
 - **Black font**: indicates all proposed ICAP Manual revisions through the 3/19 ICAPWG presentation
 - **Redline material**: indicates revisions based on stakeholder feedback from the 3/19 ICAPWG, additional revisions proposed at the 4/1 ICAPWG

Next Steps

- ◆ **Incorporate stakeholder feedback into the ICAP Manual and TB-226**
- ◆ **Re-post the ICAP Manual for the 4/16 BIC**
- ◆ **Re-post TB-226**
- ◆ **Business Issues Committee – 4/16**

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