

SCR Performance Obligations

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**Joint Installed Capacity, Price Responsive Load
and Market Issues Working Groups**

July 21, 2014

NYISO, Rensselaer, NY

Topics

- ◆ Concept for changing the Minimum Performance Obligation from Four Hours to Six Hours for SCRs
 - *For discussion today*
- ◆ Concept for using Event Response to Satisfy the Mandatory Test Requirement for SCRs
 - *Incorporate stakeholder feedback and continue discussion at the August 5, ICAPWG*

Changing the Minimum Performance Obligation from Four Hours to Six Hours

Existing Performance Obligation for SCRs

- ◆ Market Services Tariff Section 5.12.11.1
Responsible Interface Parties
 - *“Responsible Interface Parties may qualify as Installed Capacity Suppliers, without having to comply with the daily bidding, scheduling, and notification requirements set forth in Section 5.12.7 of this Tariff, if their Special Case Resources are available to operate at the direction of the ISO in order to reduce Load from the NYS Transmission System and/or the distribution system for a minimum of four (4) consecutive hours each day,…”*

Operations Background

- ◆ The NYISO relies on SCR resources to meet peak load conditions
- ◆ In 2013, the NYISO set a new all-time peak load of 33,956 MW on Friday, July 19 for Hour Beginning (HB) 16 and experienced high loads throughout the week of July 15-19
- ◆ Demand Response activations were as follows:
 - *Zones G-K from HB13-17 on July 15, 16, 17*
 - *Zones G-K from HB12-17 and Zones A-F from HB 13-17 on July 18, 19*
- ◆ Mr. Wes Yeomans, Vice President-Operations, reported the following at the August 15, 2013 Operating Committee Meeting:
 - *“The July 18 and July 19 load profile exceeded 33,000 MW for over six hours of each day. The duration of these days’ peak load shape exceeds the current 4 hour minimum performance requirement of Energy Limited Resources and Demand Response resources.”*

Purpose of Revising SCR Performance Obligations

- ◆ The current four hour performance obligation for SCRs does not meet system needs on peak days
- ◆ The analysis on the next several slides shows that a six hour performance obligation is more appropriate




System Operations and SCR Performance Obligations

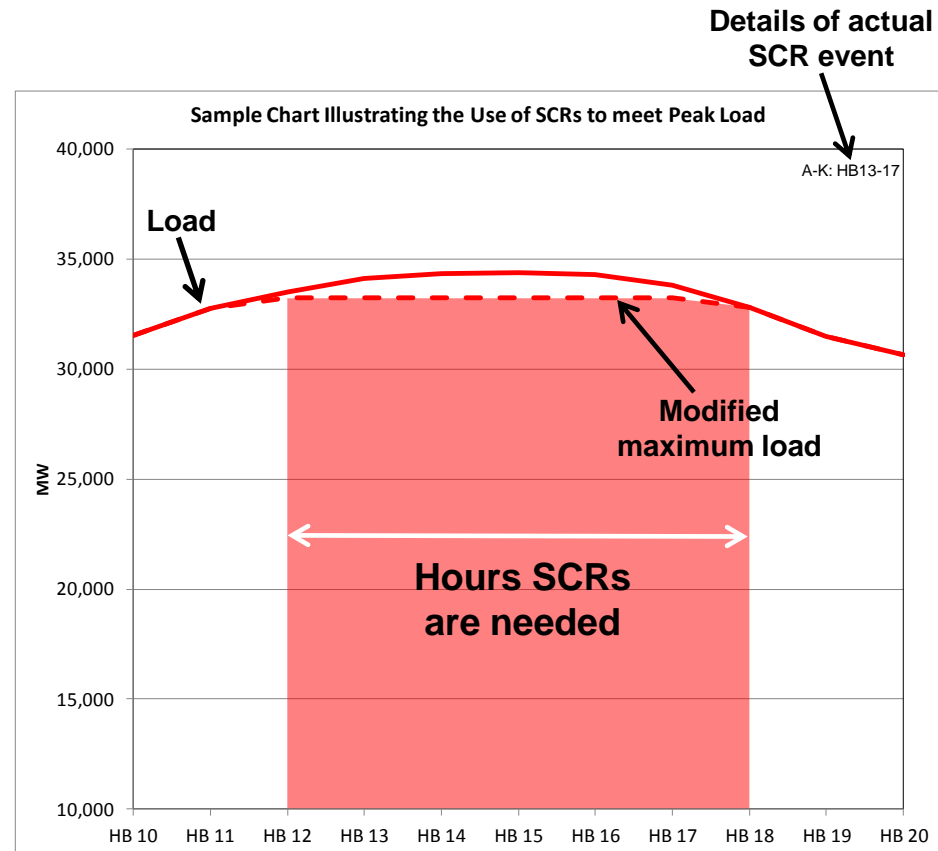
- ◆ The NYISO wants to maintain the value SCRs provide to reliable system operation by adjusting their performance obligations
- ◆ Aligning the performance obligations with system needs provides the necessary certainty to the operators that SCRs will be able to reduce the overall peak load. Without the certainty of a longer performance obligation for SCRs, especially on peak days, the NYISO is at risk of having a reliability violation.
- ◆ Particularly on peak days, it is important to have certainty that the capacity required will be available for the needed duration

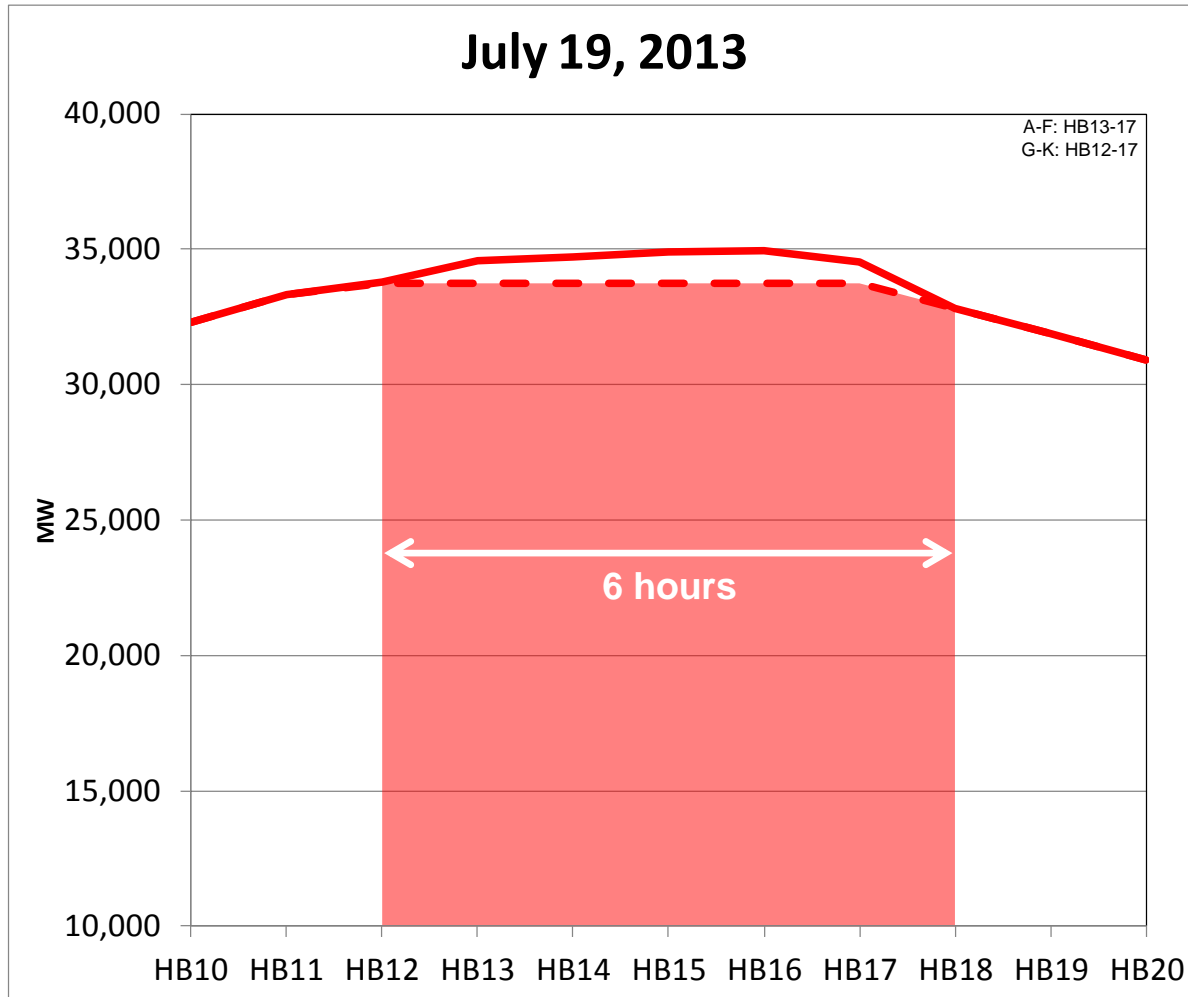
Analysis of the Load Shape

- ◆ The NYISO reviewed the load shape on each day with a SCR activation in 2011, 2012, and 2013, that coincided with a top five peak load day for that year
- ◆ Given the total obligated SCR MW in each year, the NYISO identified the number of hours the SCRs are required to meet the capacity needs
 - *For each day selected, identified all the hours where the loads are within the range of the SCR MW from the peak load of the day*
 - *SCRs are required for this entire duration*
 - *See next set of slides for an illustration of this analysis*

Load Shape Analysis – Sample Chart

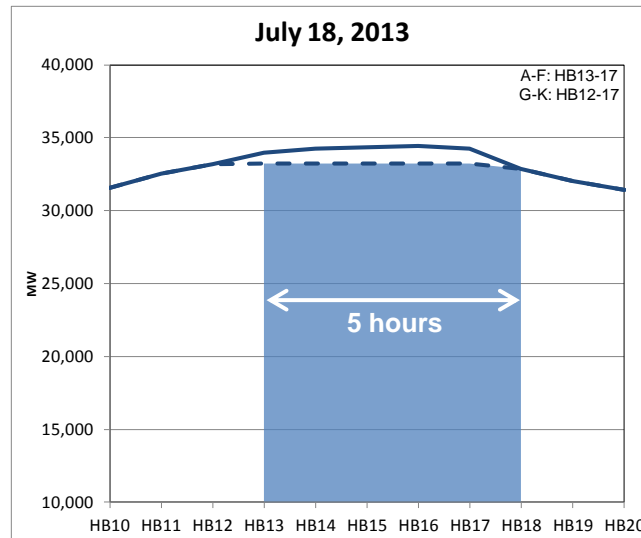
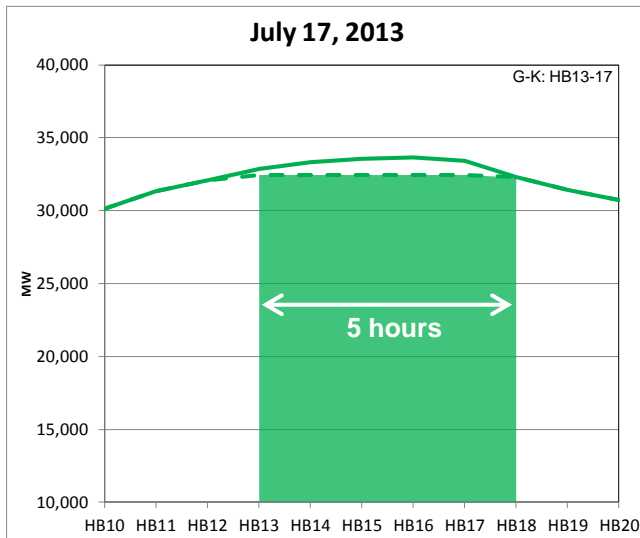
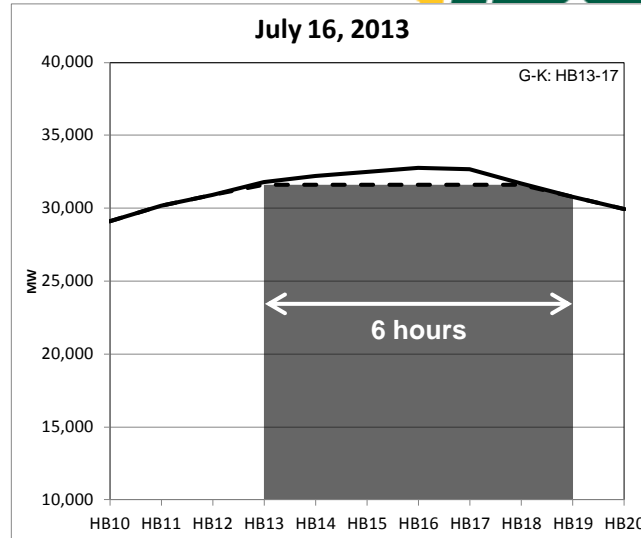
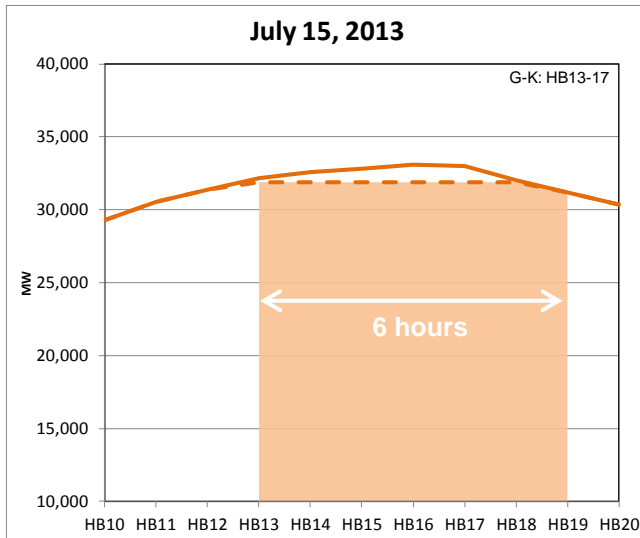
- ◆ The next set of slides pictorially show the load shape analysis
- ◆ Solid lines  represent the reconstituted load, i.e., actual observed hourly integrated load + reported DR response
- ◆ Dashed lines  represent the modified maximum load by using SCRs to meet the capacity needs
- ◆ Shaded area  represents the number of hours SCRs are needed to meet the capacity needs by reducing the maximum load over the peak hours



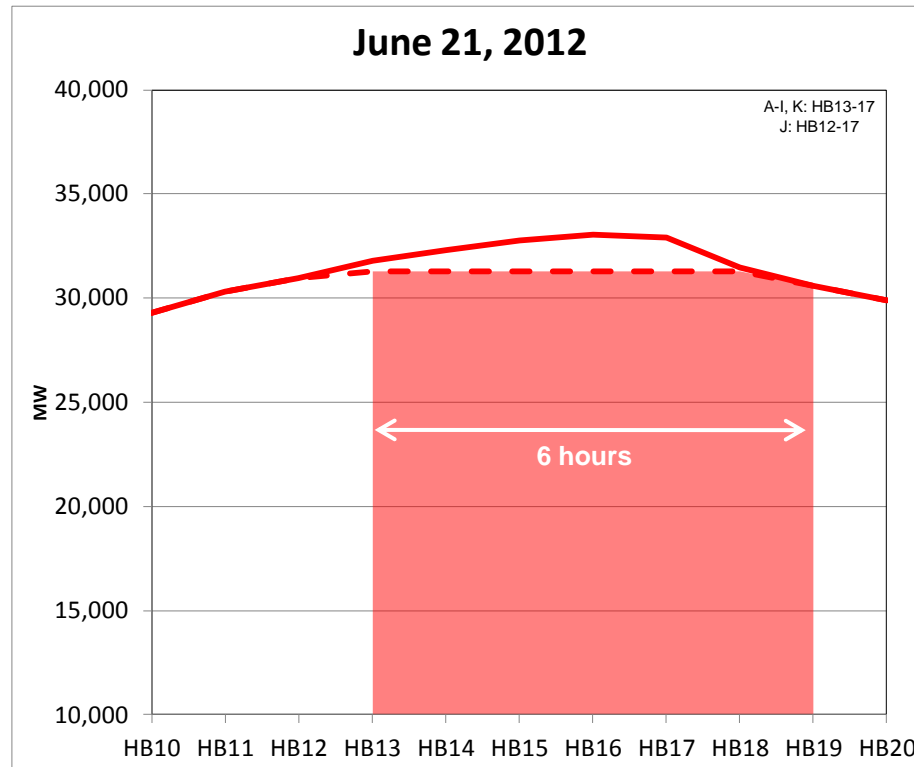


- ◆ In 2013, SCRs would have been needed for six hours on July 19 to meet the capacity needs

SCRs Obligated in 2013: 1175.6 MW

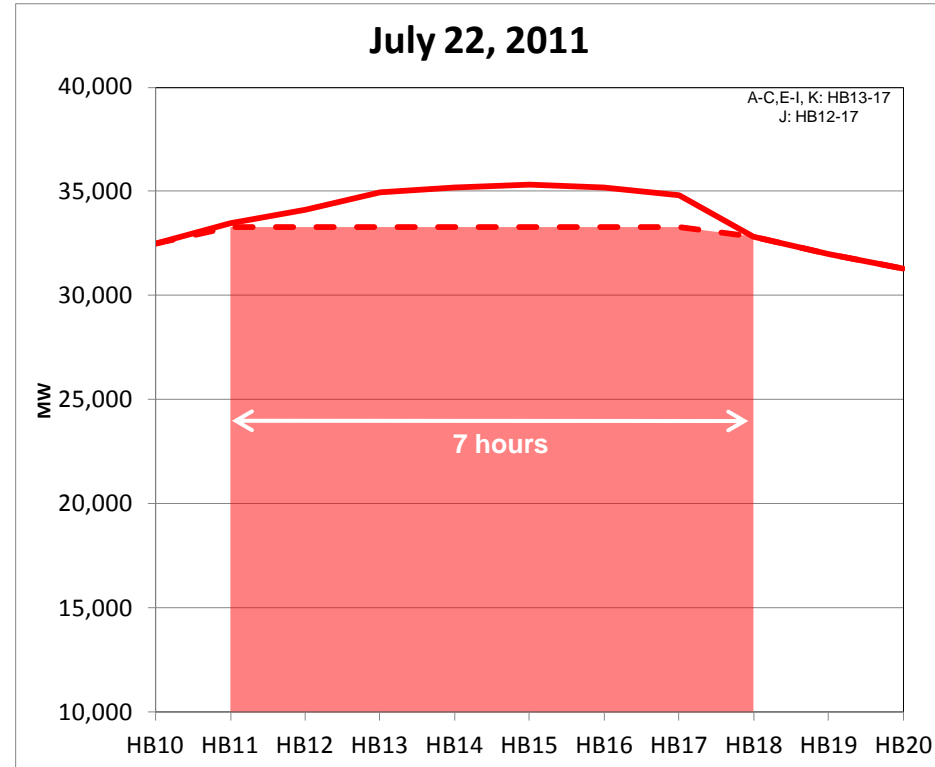
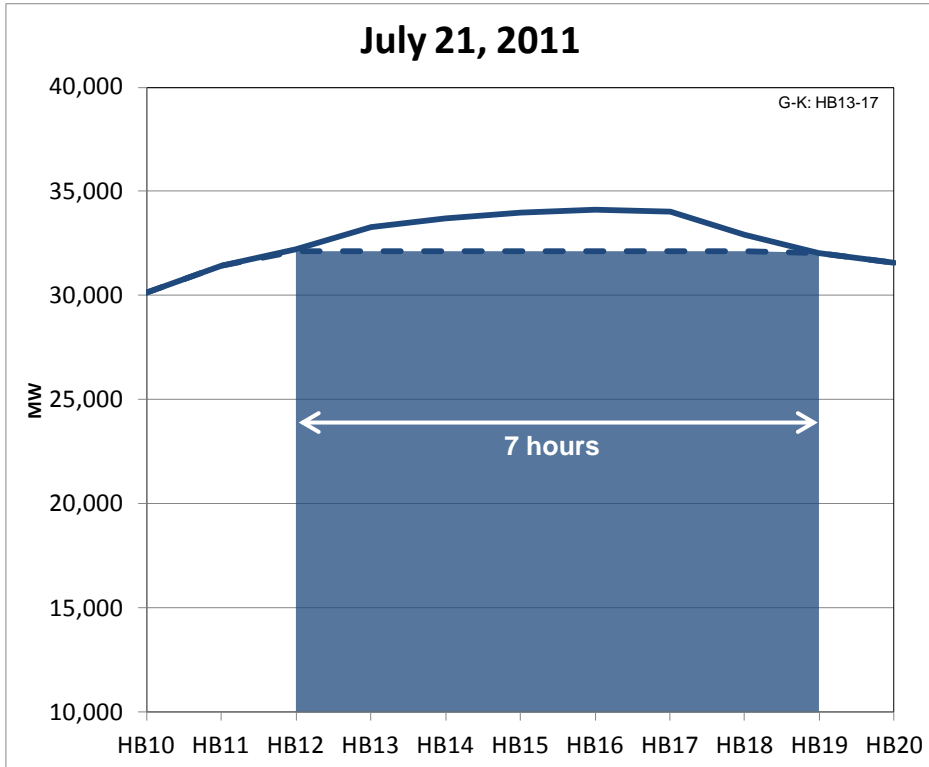


- ◆ In 2013, SCRs would have been needed for six hours on July 15 and July 16 to meet the capacity needs



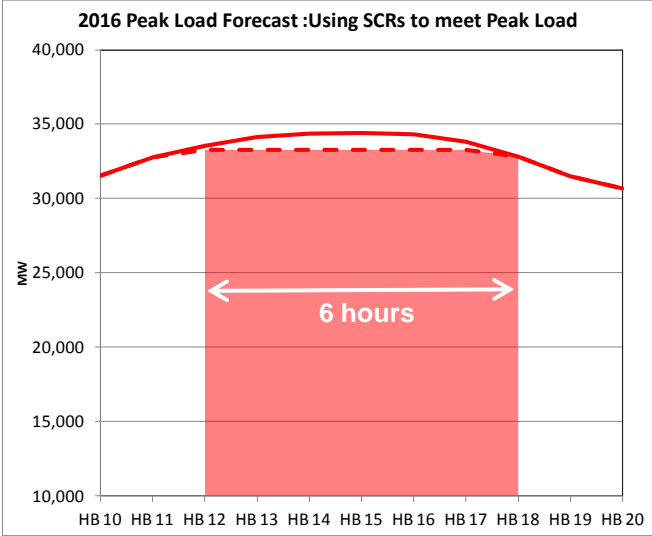
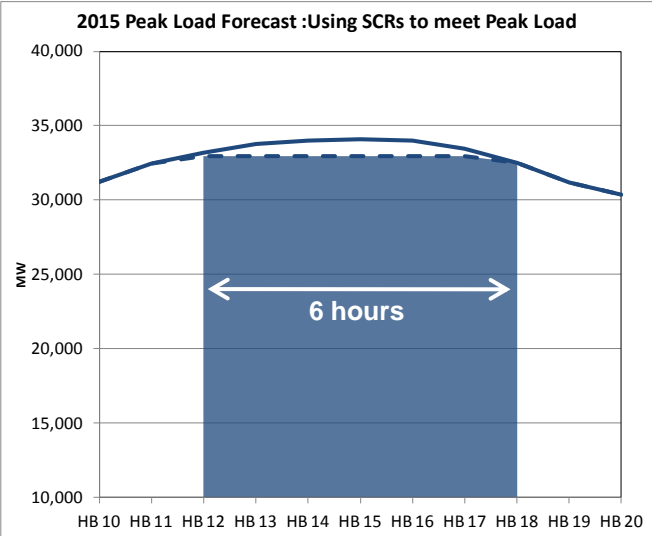
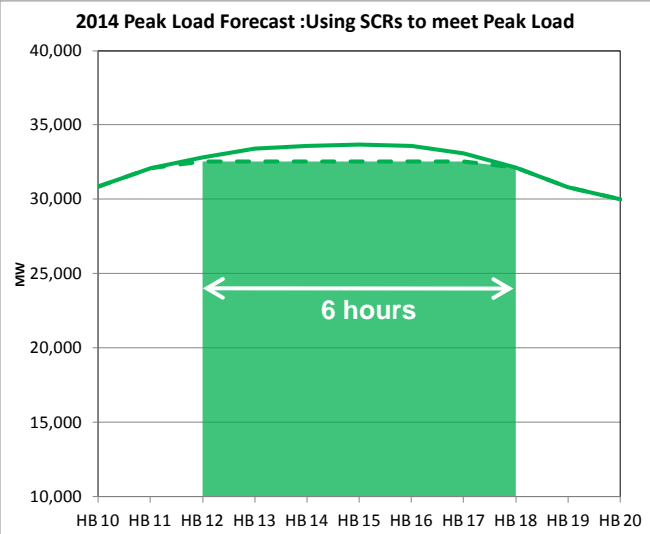
- ◆ In 2012, SCRs would have been needed for six hours on June 21 to meet the capacity needs

SCRs Obligated in 2011: 2024.8 MW



- ◆ In 2011, SCRs would have been needed for seven hours on July 21 and July 22 to meet the capacity needs

Analysis Based on SCRs Obligated in 2014: 1132.4 MW



- ◆ Based on forecasted peak and the current levels of obligated MW from SCRs, SCRs would be needed for six hours in 2014, 2015, and 2016 to meet the capacity needs

Load Shape Analysis – Conclusions

- ◆ SCRs are required for six hours or more to meet the capacity needs on six of the eight days analyzed from 2011, 2012, and 2013
- ◆ The forecasted peak load for 2014, 2015, and 2016 also show that SCRs are needed for six hours to meet the capacity needs

Proposal to Change SCRs from a Four Hour to a Six Hour Performance Obligation

- ◆ Eligibility Requirement: SCRs must perform for a minimum of six hours, or the duration of the mandatory event when fewer than six hours
- ◆ Performance Requirement: SCR performance in a mandatory event will be based on the best consecutive six hours of response, or the duration of the mandatory event when fewer than six hours

Proposal for Energy Payments for SCRs

- ◆ Proposal to increase the maximum Minimum Payment Nomination of a SCR from \$500/MWh to \$750/MWh
- ◆ SCRs that report required CBL data will be eligible for a LBMP energy payment of up to six hours, or the duration of the event when greater than six hours
- ◆ SCRs that report required CBL data will receive a Bid Production Cost Guarantee (BPCG) payment based on six hours, or the duration of the event when greater than six hours

Propose to Change from a Four Hour to a Six Hour Performance Obligation for ELRs

- ◆ Current Definition: Energy Limited Resources (ELRs) are capacity resources that, due to environmental restrictions on operations, cyclical requirements, such as the need to recharge or refill, or other non-economic reasons, are unable to operate continuously on a daily basis, but are able to operate for at least four consecutive hours each day. Energy Limited Resources must register their Energy limiting characteristics with, and justify them to, the ISO consistent with ISO Procedures.
- ◆ Propose to require ELRs to operate for at least six consecutive hours on critical operating days. ELRs will be required to operate for at least four hours on all other days.

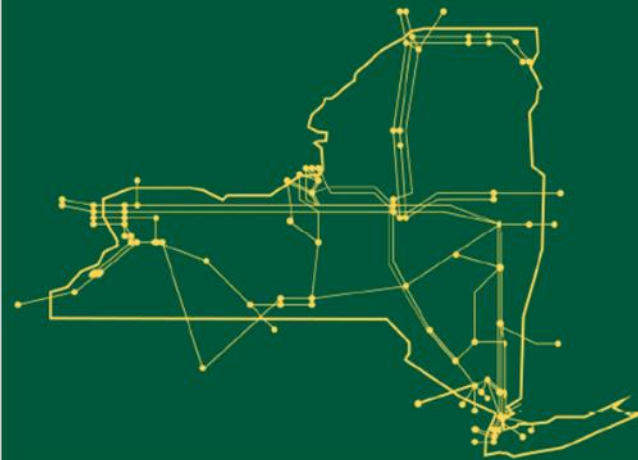
Identifying a Critical Operating Day when ELRs will be Required to Operate for Six Hours

- ◆ Conditions which may be considered to identify a critical operating day
 - *Forecasted load levels*
 - *Forecasted reserve deficiencies*
 - *SCR Day Ahead Advisories*
- ◆ Additional details will be discussed at the August 5, ICAPWG
 - *NYISO Operations will communicate the critical operating days*

Next Steps

- ◆ August 5 and 20 ICAPWG meetings:
 - *Incorporate stakeholder feedback from July 8 and July 21 ICAPWG*
 - *Additional discussion and Tariff language*
- ◆ September 2014: BIC and MC votes
- ◆ October 2014: Board approval and file Tariff
- ◆ Early 2015: Required ICAP Manual changes
- ◆ June 2015: Deployment to be effective for the Summer 2015 Capability Period

The New York Independent System Operator (NYISO) is a not-for-profit corporation responsible for operating the state's bulk electricity grid, administering New York's competitive wholesale electricity markets, conducting comprehensive long-term planning for the state's electric power system, and advancing the technological infrastructure of the electric system serving the Empire State.



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