
New York State

2014/2015 Winter Bulk Electric System Preparedness

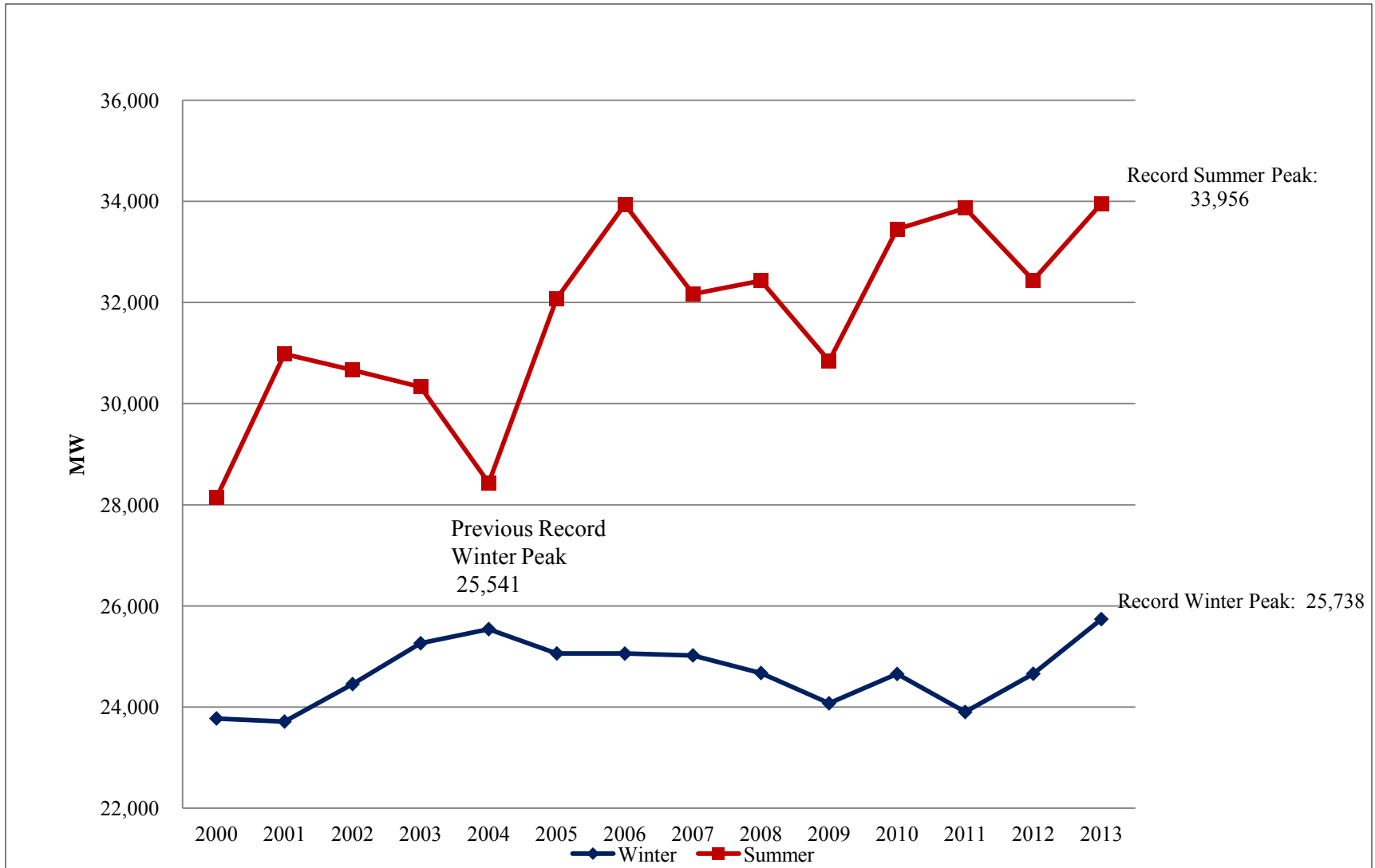
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Background

- ❑ 2013/2014 winter characterized by multiple extended polar vortexes/cold snaps
 - Severe weather affected availability of fuel at times that impacted electric generators' operating performance
 - Primary lessons learned:
 - Significantly decreased fuel oil infrastructure has impacted replenishment capabilities
 - Process issues related to generation owners obtaining alternate fuel waivers

New York State Historic Coincident Peaks



New York Winter 2014/2015 Capability & Load

NYISO Provided Data	MW
2014 Generation	39,803
New York Special Case Resources (SCRs)	843
External Purchase Contracts	1,078
LESS: Forecast de-rates	(4,486)
TOTAL 2014 CAPACITY	37,238
Load Forecast	24,737
Operating Reserve Requirement	1,965
Capacity Margin	10,536

Overview

- ❑ New York Bulk Electric System Preparedness
 - Generation
 - NYISO
 - State agency actions for fuel requirement waivers

Generation Facilities

- ❑ Staff met with major generation facility owners to discuss their experiences from last winter and changes they may have made for the upcoming winter.
- ❑ The focus was on facilities that burn natural gas and/or fuel oil, and topics for discussion included:
 - natural gas procurement practices,
 - fuel supply and storage and replenishment capabilities of the various dual-fuel generating sites,
 - fuel supply related preparations for the 2013/2014 winter and problems experienced during the 2013/2014 winter,
 - fuel supply related preparations for the upcoming 2014/2015 winter and any changes made as a result of the 2013/2014 winter experience.

Generation Facilities Findings

- ☐ Replenishment of fuel oil is a critical issue
- ☐ Some beneficial changes were made by generation owners as a result of last winter's experience
- ☐ There are economic ramifications associated with carrying high fuel oil inventories.
 - primarily there is the risk of incurring carrying costs of unconsumed fuel oil.
- ☐ Natural gas related findings:
 - firm natural gas transportation in the downstate areas is particularly costly and difficult to obtain.

❑ Winter 2013/2014

- The NYISO
 - increased overall communications at various levels
 - NPCC, PJM, TOs, Generation Owners
 - took numerous actions during weather events
 - the bulk electric system was stressed, but safe and reliable operation was maintained

- ❑ New 2014/2015 Winter Operational Measures
 - Automated the process for monitoring generator units fuel inventories and replenishment schedules;
 - Added Energy Management System (EMS) visualization of the gas system for its system operators;

- ❑ Made a FERC Order 787 Code of Conduct filing
 - If approved, permits ISO/RTOs and interstate pipelines to share non-public, operational information with each other for the purpose of promoting reliable service or operational planning on either system.

RTO/ISO Market Responses

- ❑ ISO New England Revisions
 - Winter Reliability Program (WRP) for winter 2014/2015. Program highlights:
 - Compensation for unused oil inventory
 - Compensation for unused LNG contract volume
 - Demand response
 - Incentives for commissioning dual-fuel capacity

- ❑ PJM proposed changes (will not be implemented for the 2014/2015 winter)
 - Exploring developing an enhanced capacity product ("Capacity Performance") to its capacity market.

- ❑ Long-term NYISO actions
 - The NYISO is in the process of working with stakeholders to develop energy and capacity market enhancements to better value fuel assurance

State agency actions for fuel requirement waivers

- ❑ Fuel oil burning generators are permitted by the DEC to burn only specific fuel types for air emissions reasons
- ❑ There are times when the specified fuel may not be available and a fuel waiver is required from DEC to burn an alternate fuel type
- ❑ DPS is working with various state agencies and stakeholders to
 - develop a State agency and NYISO Protocol to specify guidelines for fuel waivers including:
 - clarify what DEC/NYSERDA would need from the generator to grant an alternate fuel waiver;
 - clarify what information generators can provide; and
 - clarify roles of involved entities
 - The goal is to perform a table top exercise before winter

Summary

- ❑ Increased fuel oil inventories for a number of generation owners better positions the bulk system heading into the winter
- ❑ NYISO has made changes that should enhance its operation of the bulk system for this winter
- ❑ Fuel waiver protocol is being coordinated between state agencies and the NYISO to facilitate the alternate fuel waiver process