



**Public Service
Commission**

Winter Preparedness of the Natural Gas and Electric Supply 2016-2017 Winter Season

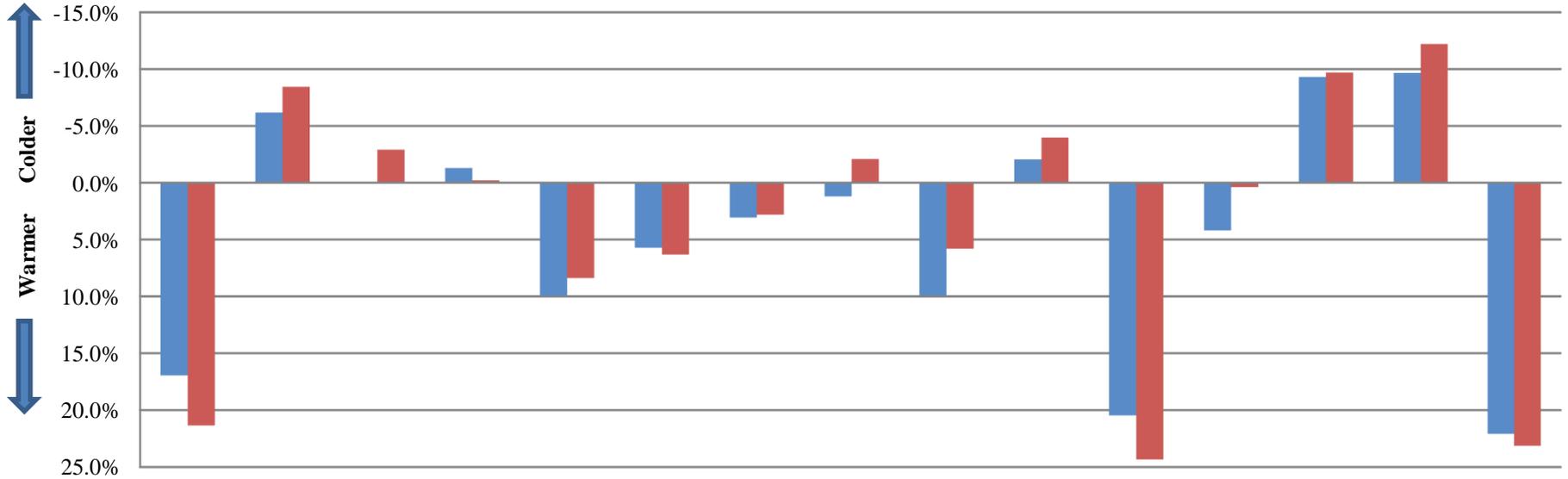
*Office of Electric, Gas, and Water
Office of Consumer Services*

October 13, 2016
Albany, New York

Natural Gas Winter Outlook

Cynthia H. McCarran
Deputy Director of Gas & Water
Office of Electric, Gas, and Water

HDD % Warmer or (Colder) than Normal (Heating Seasons Nov 1 - March 31)

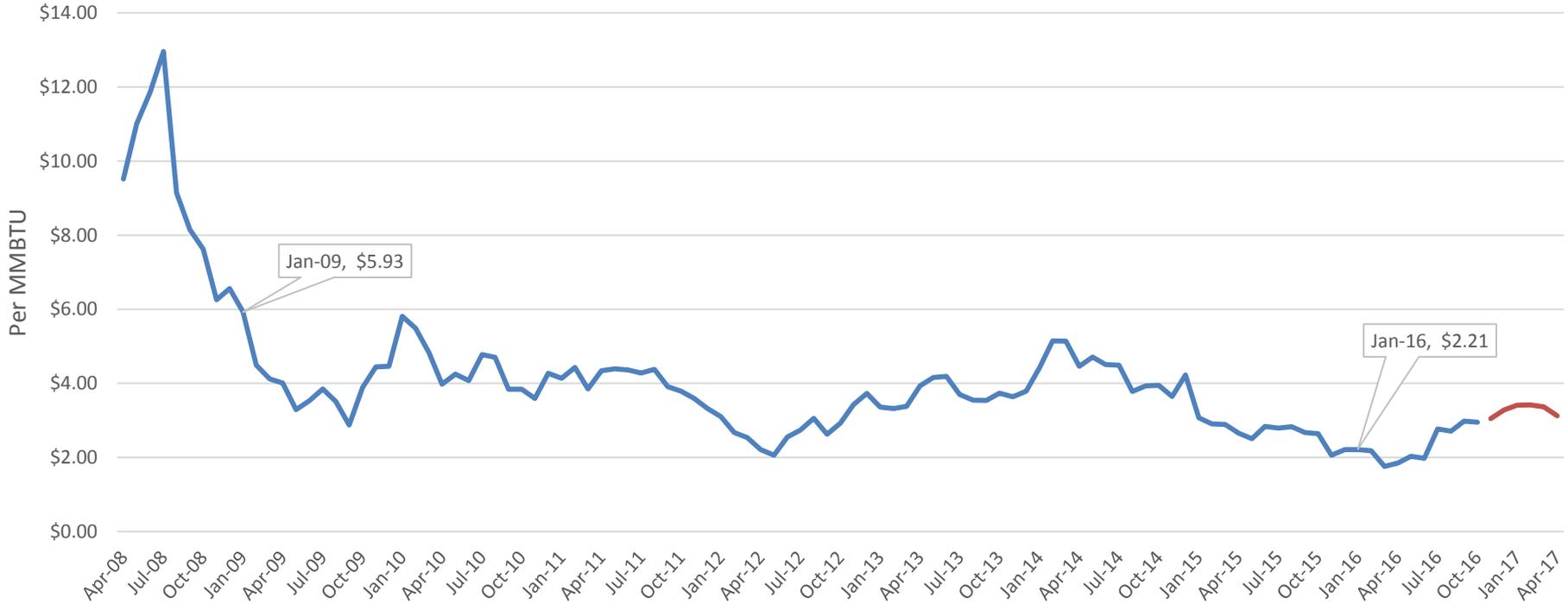


	Winter 01-02	Winter 02-03	Winter 03-04	Winter 04-05	Winter 05-06	Winter 06-07	Winter 07-08	Winter 08-09	Winter 09-10	Winter 10-11	Winter 11-12	Winter 12-13	Winter 13-14	Winter 14-15	Winter 15-16
Albany	16.9%	-6.2%	0.0%	-1.3%	9.9%	5.7%	3.1%	1.2%	9.9%	-2.1%	20.5%	4.2%	-9.3%	-9.7%	22.1%
NYC	21.3%	-8.4%	-2.9%	-0.2%	8.4%	6.3%	2.8%	-2.1%	5.8%	-4.0%	24.3%	0.4%	-9.7%	-12.2%	23.1%

Adequate Capacity and Supplies

- Review of expected customer requirements for design weather conditions for this winter.
- Review of supplies to meet expected customer requirements for design weather conditions for this winter.
- Staff will continue to monitor supply, prices and interruptible customers throughout the winter

NYMEX Gas Futures Prices



— NYMEX — NYMEX Forecast

Forecast for November 2016 and beyond as of October 7, 2016

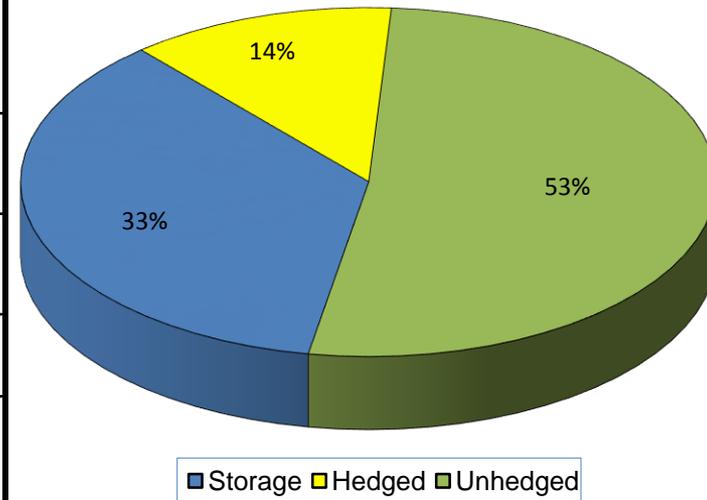


LDC Commodity Portfolio

	2016-17 Typical Portfolio	2015-16 Winter Forecast \$/dth	2015-16 Winter Actual \$/dth	2016-17 Winter Forecast \$/dth
Physical Storage	33%	\$2.01	\$1.82	\$1.79
Hedged Supply	14%	\$3.10	\$2.87	\$2.56
Flowing Gas	53%	\$2.05	\$1.65	\$2.44
Average Winter Commodity Price		\$2.16	\$1.88	\$2.24

Firm Customers

New York State Gas Utility Typical 2016-17 Winter Supply Portfolio

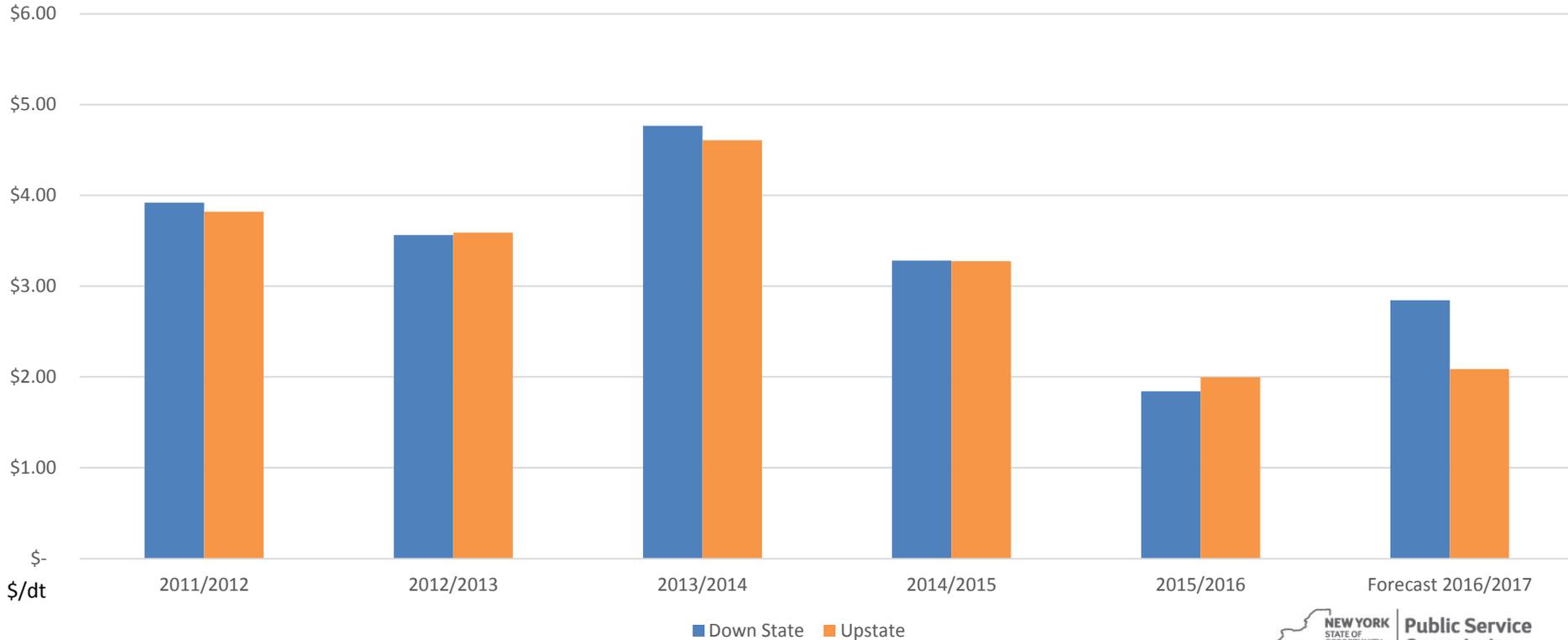


Statewide Avg. Winter Bills

Residential Heating Customer

2015-16 Actual Weather	2015-16 Normal Weather	2016-17 Normal Weather	% Change Actual 2015-16 vs. Normal 2016-17	% Change Normal 2015-16 vs. Normal 2016-17
\$610	\$650	\$694	+13.7%	+6.7%

Typical Residential Customer Gas Supply Prices



Coordination with Oil Industry

- ❑ Interruptible gas customers must meet certain requirements to maintain alternate fuel inventories so that there are no anticipated problems with fuel switching
- ❑ LDCs will be conducting tests and may inspect alternate fuel burning equipment of interruptible customers where needed to ensure compliance with alternate fuel inventory requirements
- ❑ Communications protocol was developed last winter season, and it will continue to be implemented. We have issued the protocols for comment and will bring it to the Commission by January to make them enforceable.

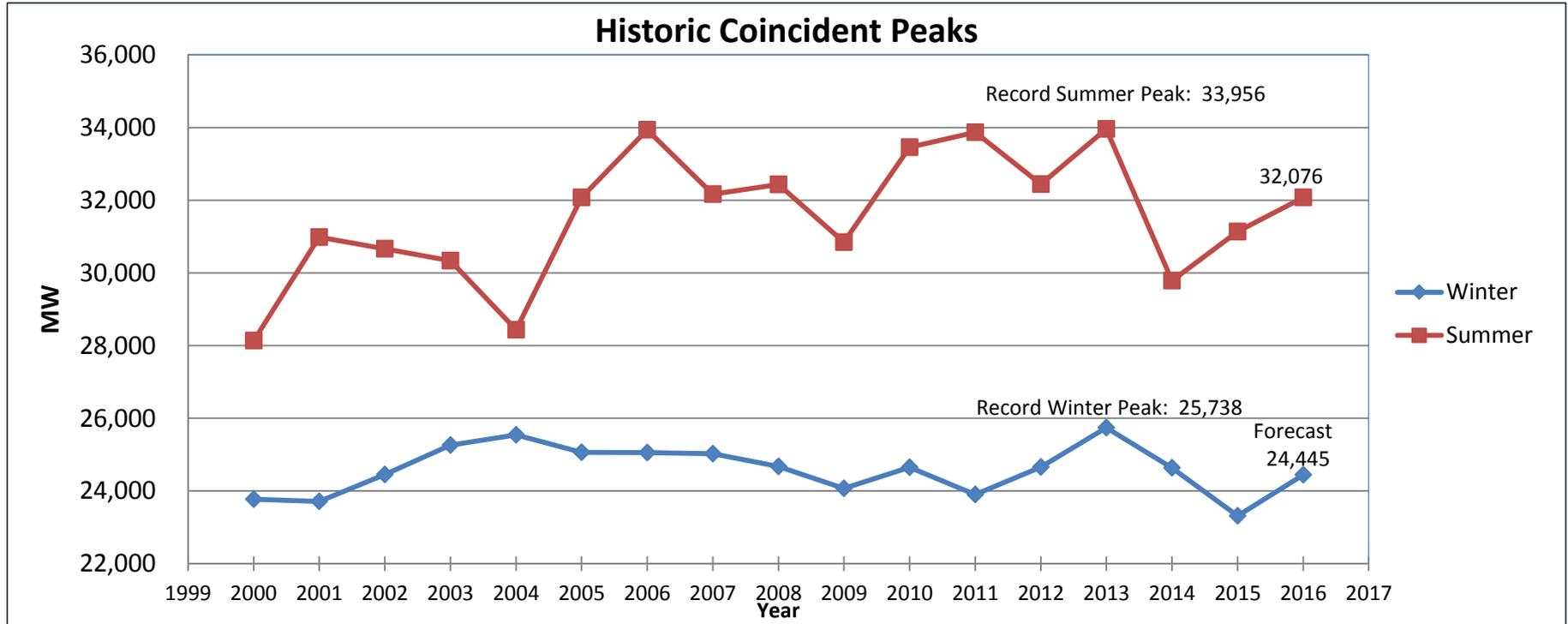
Summary

- ❑ NY gas utilities have contracted for adequate capacity and supplies and are ready to meet 2016-2017 winter conditions
- ❑ Commodity prices are in a downward trend compared to recent history
- ❑ Compared to the five year average, customer bills this winter are expected to be the same or lower

Bulk Electric System Preparedness

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Electric Bulk Systems
Office of Electric, Gas, and Water

New York State Historic Coincident Peaks



New York Winter 2016/17 Capability & Load

NYISO Provided Data	MW
2016 Generation	40,092
New York Special Case Resources (SCRs)	842
External Purchase Contracts	504
LESS: Total Projected Capacity Outages	(4,940)
TOTAL 2015 CAPACITY	36,498
Load Forecast	24,445
Operating Reserve Requirement	2,620
Capacity Margin	9,433

Major Generation Facilities

- ❑ Staff reached out to major generation facility owners located primarily on the southeastern portion of New York.
- ❑ Lessons learned and beneficial changes made as result of the 2013/2014 Polar Vortex are continuing.
- ❑ On-site storage and replenishment of fuel oil is a critical issue.
- ❑ State Agencies and NYISO Winter Protocol

NYISO

❑ Winter 2015/2016

- Enhanced shortage pricing curves – incentives for generators to meet day-ahead commitments – in effect as of November 4th, 2015
- Increase total reserve requirements – in effect as of November 4th, 2015
- NYISO and interstate pipelines can now share operational information with each other for the purpose of promoting reliable service or operational planning on either system

❑ Winter 2016/2017

- Continue with prior enhancements and activities.

❑ Neighboring RTO/ISO

- ISO New England
 - Continued Winter Reliability Program (WRP)
 - Compensation for unused oil inventory
 - Compensation for unused LNG contract volume
 - Demand response
 - Incentives for commissioning dual-fuel capacity
- PJM
 - Enhanced Capacity Performance Proposal to begin winter 2016/2017

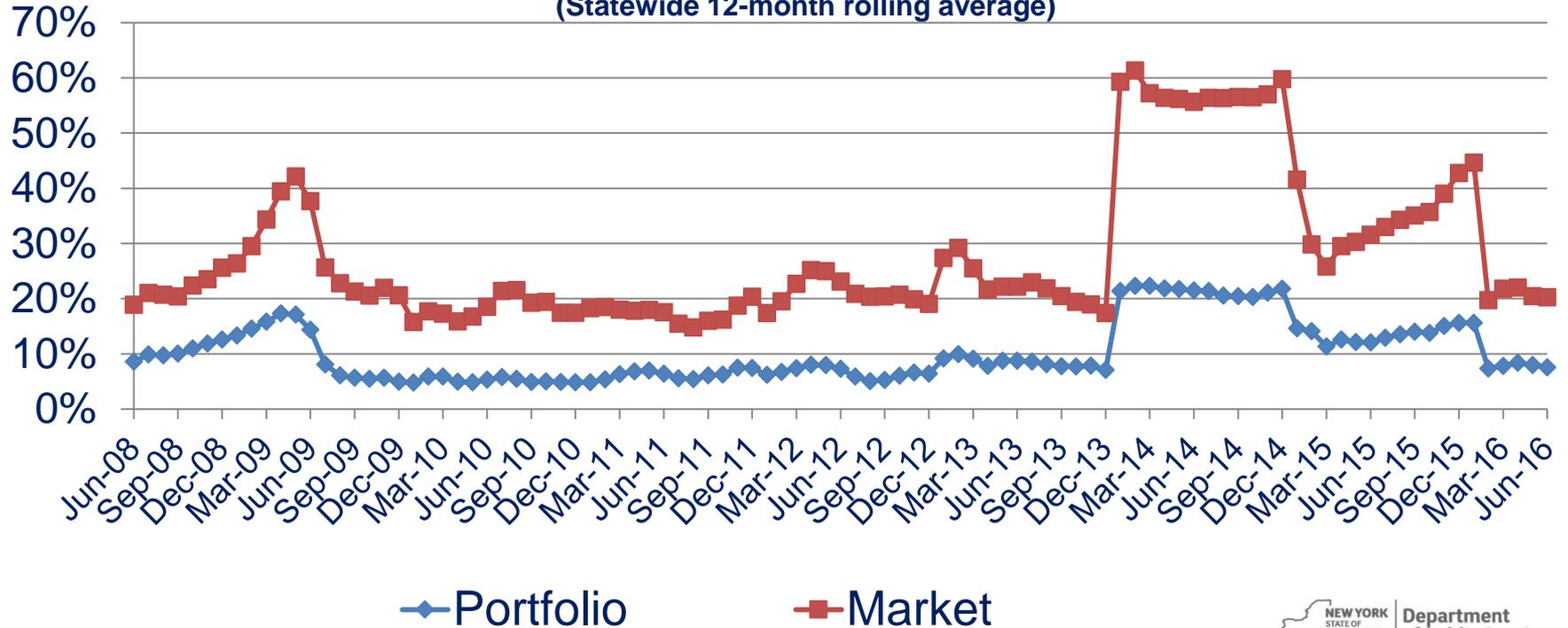
Electric Utility Portfolio Price Volatility and Supply Price Outlook

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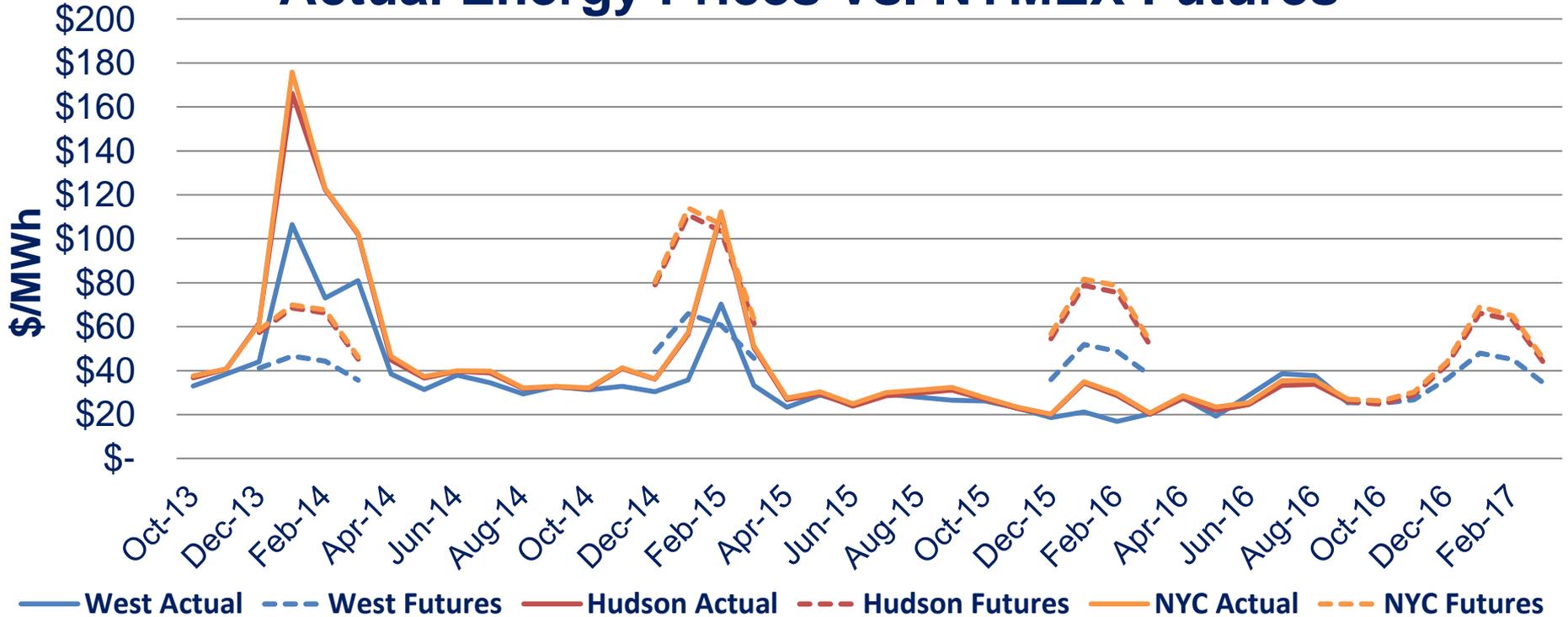
NYISO Spot Market vs. Utility Full Service Residential Customer Supply Portfolio Volatility

(Statewide 12-month rolling average)

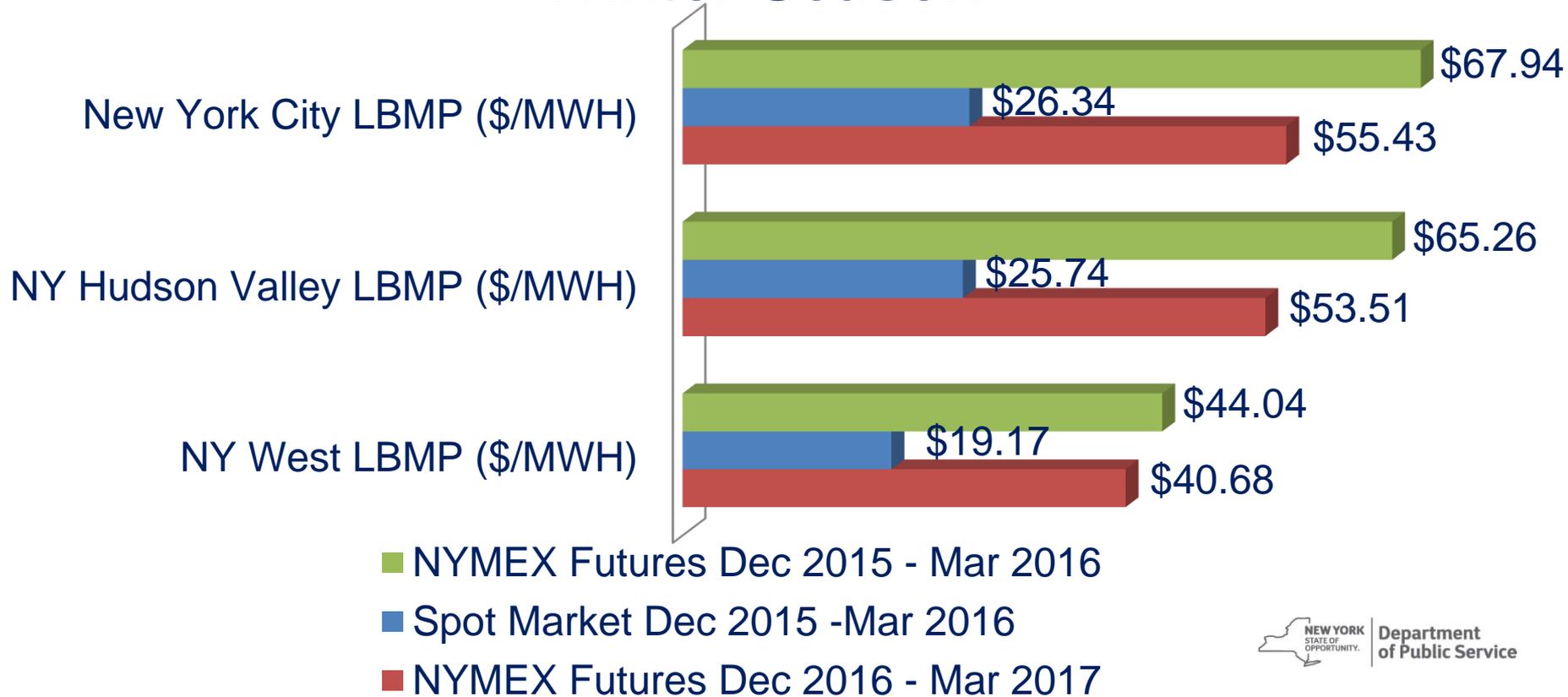
Coefficient of Variation



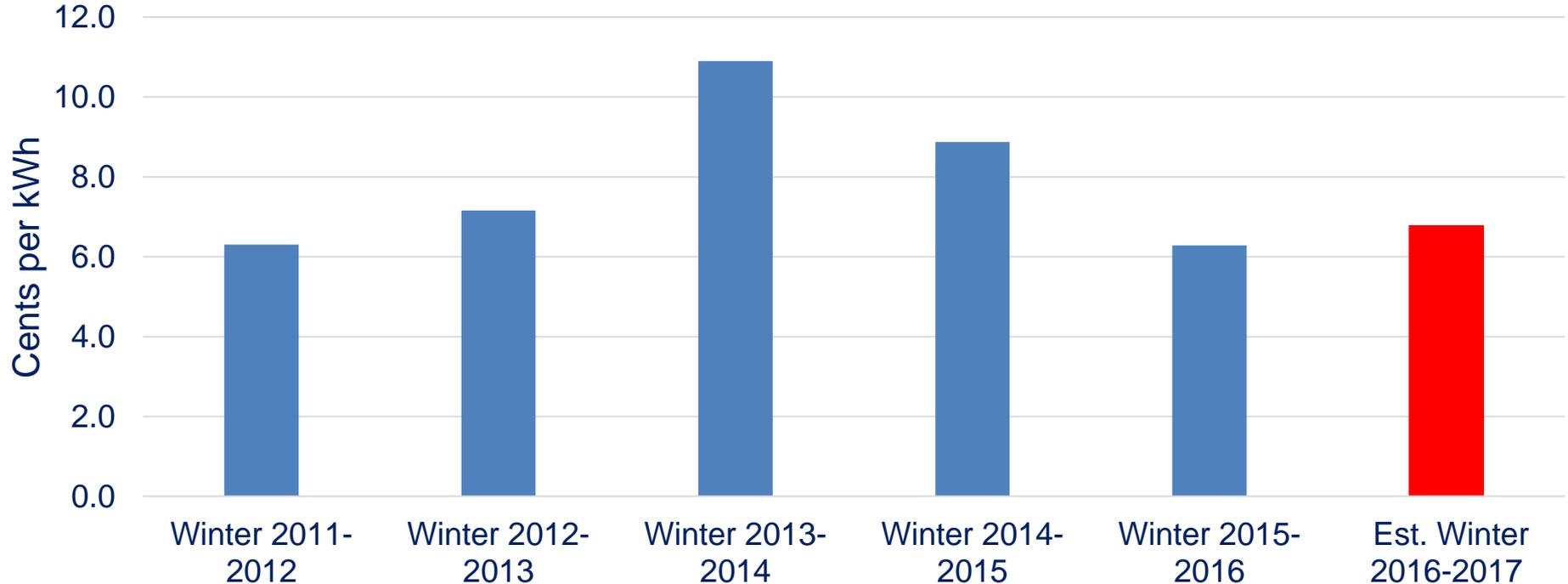
NYISO Day Ahead-Around The Clock Historic Actual Energy Prices Vs. NYMEX Futures



Average Energy Price Comparison Winter Season



Statewide Weighted Average Full Service Residential Supply Price



DPS Outreach Efforts

- ❑ Outreach staff will provide materials on energy assistance, gas safety, and other issues that will be available to community based organizations



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