

*May 21, 2014
Albany, NY*

Supply & Demand: Stresses on a Constrained Delivery System *(and some solutions too)*

Presentation to:

IPPNY's 28th Annual Spring Conference

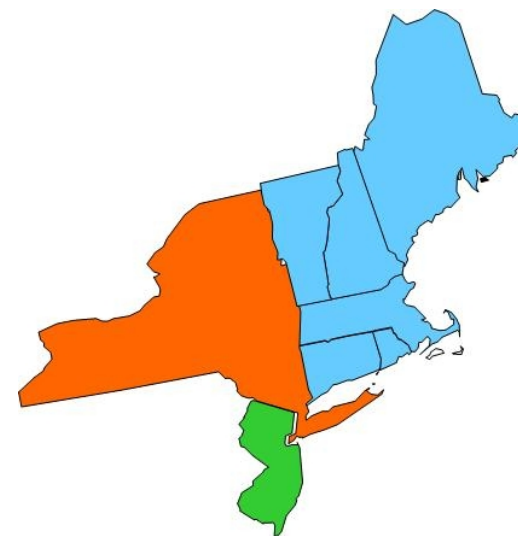
Thomas M. Kiley
Northeast Gas Association

Topics

- ◆ ***Gas Market Update***: developments in New York State & the Northeast
- ◆ ***Constrained System***: Recent winter & its implications
- ◆ ***Solutions***: Infrastructure enhancement opportunities

About NGA

- ◆ Non-profit trade association
- ◆ Local gas utilities (LDCs) serving New York, New Jersey, and New England
- ◆ Several interstate pipeline companies
- ◆ LNG importers and LNG trucking companies
- ◆ About 200 “associate member” companies, from industry suppliers and contractors to electric grid operators
- ◆ www.northeastgas.org



NGA'S ANTITRUST COMPLIANCE PROCEDURES

Adopted by the NGA Board of Directors on June 4, 2003

Objective

The Northeast Gas Association (NGA) and its member companies are committed to full compliance with all laws and regulations, and to maintaining the highest ethical standards in the way we conduct our operations and activities. Our commitment includes strict compliance with federal and state antitrust laws, which are designed to protect this country's free competitive economy.

Responsibility for Antitrust Compliance

Compliance with the antitrust laws is a serious business. Antitrust violations may result in heavy fines for corporations, and in fines and even imprisonment for individuals. While NGA's attorneys provide guidance on antitrust matters, you bear the ultimate responsibility for assuring that your actions and the actions of any of those under your direction comply with the antitrust laws.

Antitrust Guidelines

In all NGA operations and activities, you must avoid any discussions or conduct that might violate the antitrust laws or even raise an appearance of impropriety. The following guidelines will help you do that:

- **Do** consult counsel about any documents that touch on sensitive antitrust subjects such as pricing, market allocations, refusals to deal with any company, and the like.

Continued on NGA web site...

<http://www.northeastgas.org/about-nga/antitrust-guidelines>

Gas Market Update



Northeast Production Continues Growth



Marcellus
Natural gas production

million cubic feet/day

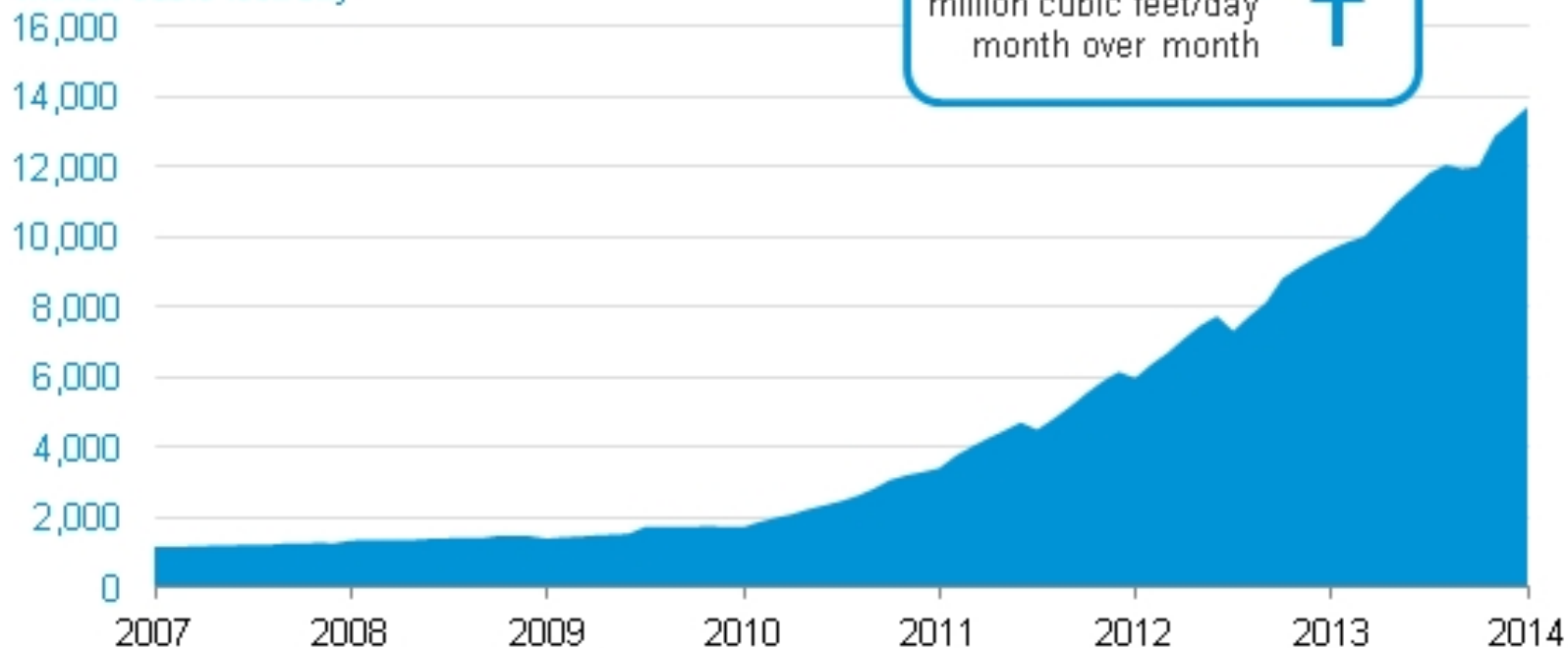
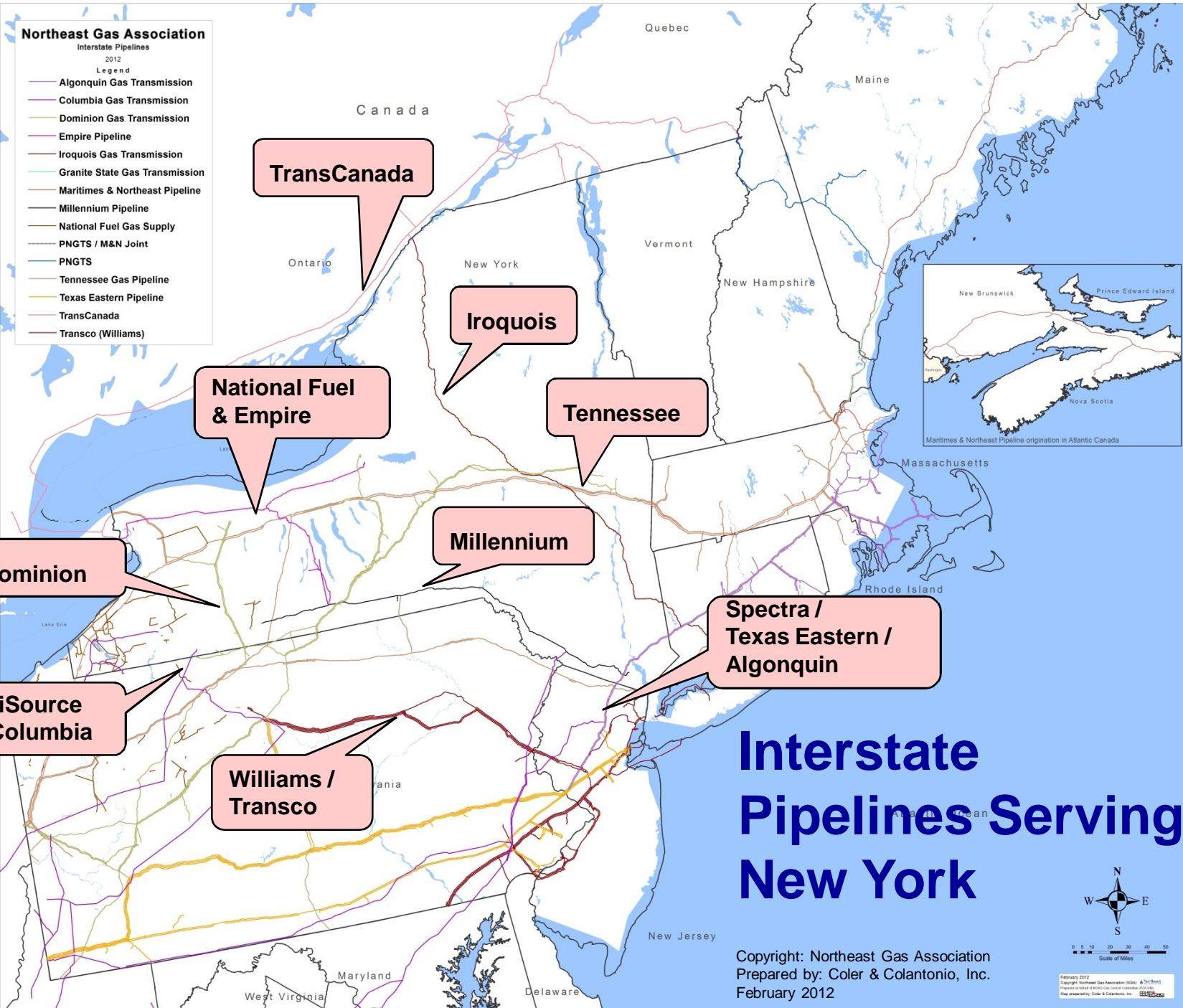


Chart: U.S. EIA, 12-13



- Northeast Gas Association**
Interstate Pipelines
2012
- Legend
- Algonquin Gas Transmission
 - Columbia Gas Transmission
 - Dominion Gas Transmission
 - Empire Pipeline
 - Iroquois Gas Transmission
 - Granite State Gas Transmission
 - Maritimes & Northeast Pipeline
 - Millennium Pipeline
 - National Fuel Gas Supply
 - PNGTS / M&N Joint
 - PNGTS
 - Tennessee Gas Pipeline
 - Texas Eastern Pipeline
 - TransCanada
 - Transco (Williams)

TransCanada

Iroquois

Tennessee

National Fuel & Empire

Millennium

**Spectra /
Texas Eastern /
Algonquin**

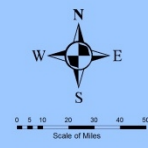
Dominion

**NiSource
/Columbia**

**Williams /
Transco**

Interstate Pipelines Serving New York

Copyright: Northeast Gas Association
Prepared by: Coler & Colantonio, Inc.
February 2012



February 2012
Copyright: Northeast Gas Association (NGA) A Terrium
Produced in accordance with the Gas Supply Act (GSA)
Map prepared by: Coler & Colantonio, Inc.

Interstate Transmission Projects In-Service in 2013

- ◆ Tennessee's "Northeast Upgrade": **636 MMcf/d**
- ◆ Tennessee's "MPP Project": **240 MMcf/d**
- ◆ Millennium's "Minisink Compressor": **150 MMcf/d**
- ◆ National Fuel Gas's "Line N": **30 MMcf/d**
- ◆ Transco's "Northeast Supply Link": **250 MMcf/d**
- ◆ Spectra's "NJ-NY Expansion": **800 MMcf/d**



Photo courtesy of Spectra Energy

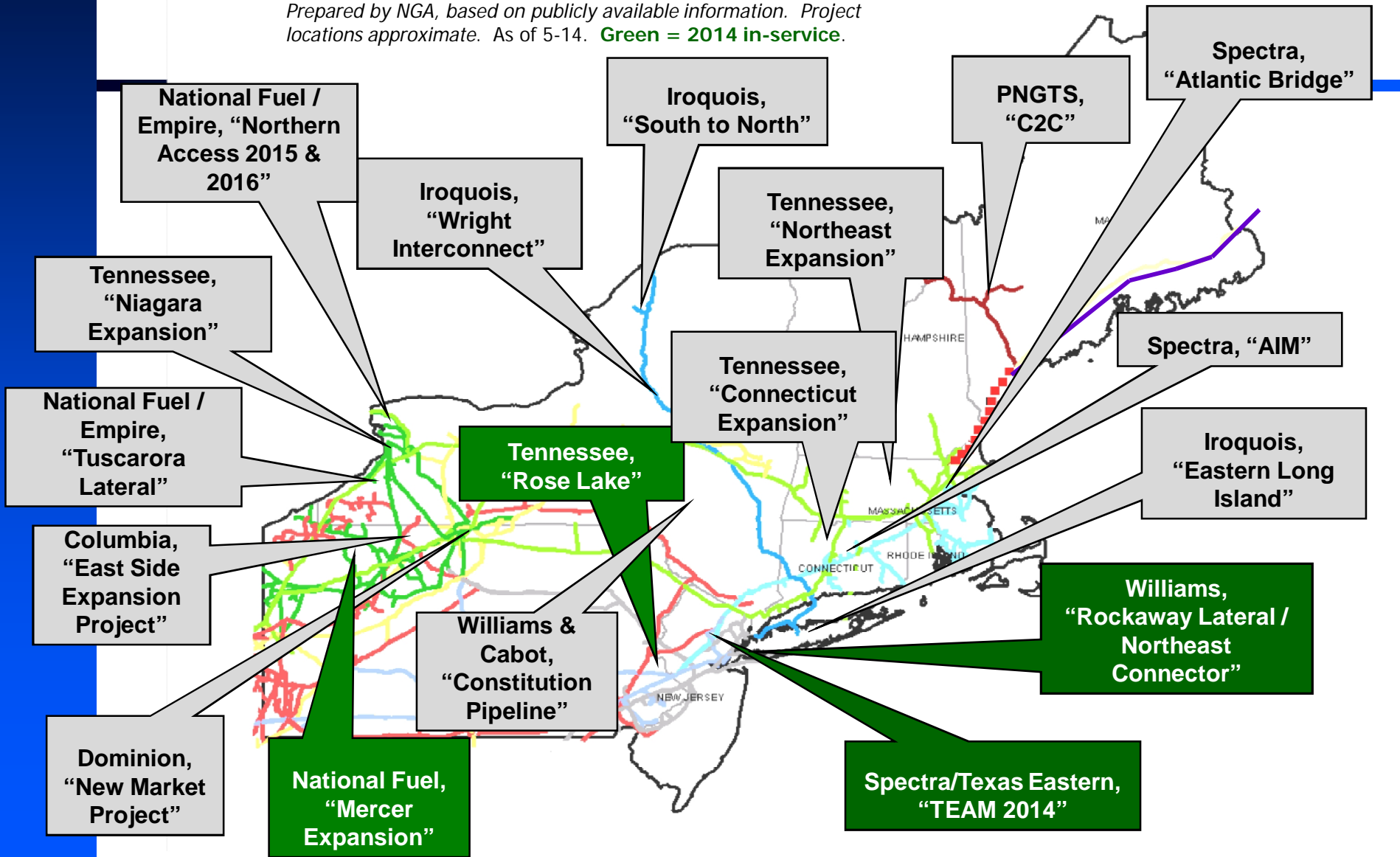
Pipeline Development

- Pipeline holds “open season” to gauge market interest in capacity expansion on its system
- Based on response, pipeline develops proposals (or not), secures contract commitments, requests construction authorization from the U.S. FERC
- Process can take from 3 to 5 years
- Siting challenges as with any new infrastructure

Proposed Pipeline Projects



Prepared by NGA, based on publicly available information. Project locations approximate. As of 5-14. **Green = 2014 in-service.**



Transco Projects Just Approved



FERC approved proposal this month

In-service this November

Transco Rockaway Lateral - 647,000 dt/day into Brooklyn

Transco Northeast Connector- 100,000 dt/day from Station 195



Map: Transco Pipeline / Williams

New York City: Growing Conversion Market

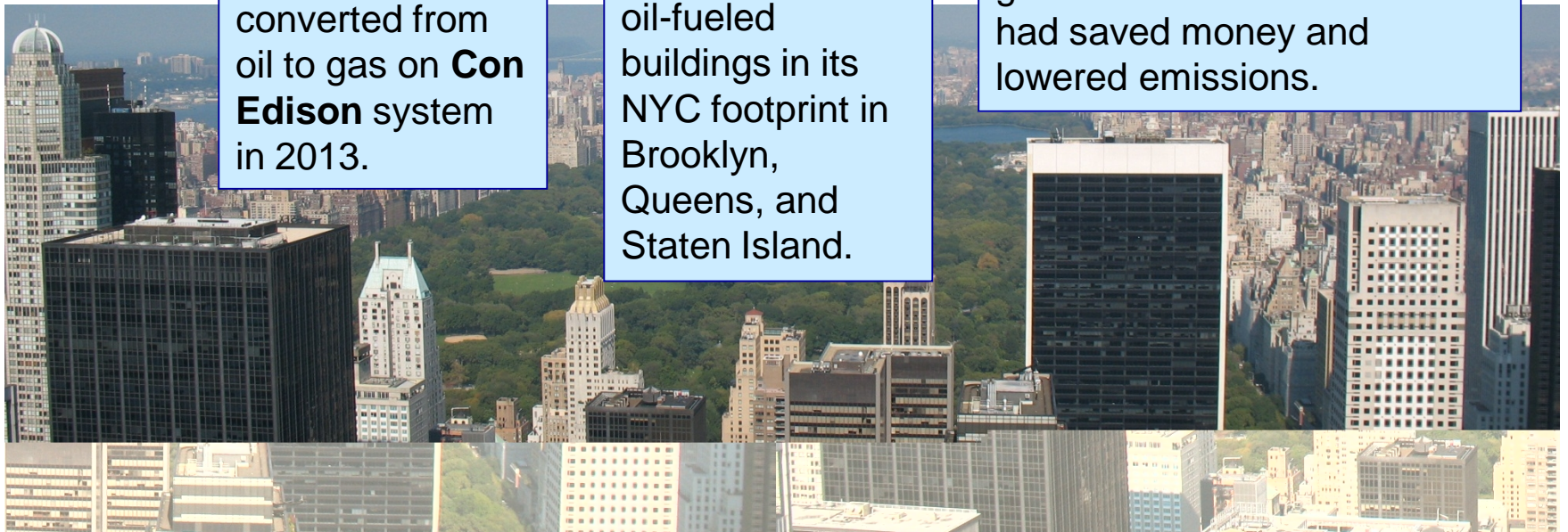


PlaNYC phasing out the use of #4 and #6 oil in city buildings.

About 1,300 city buildings converted from oil to gas on **Con Edison** system in 2013.

National Grid has converted or is in the process of converting 537 heavy (#6 & #4) oil-fueled buildings in its NYC footprint in Brooklyn, Queens, and Staten Island.

In Sept. 2013, Mayor Bloomberg announced the city's air was the cleanest in 50 years – and noted that “the expansion of the regional natural gas supply and local gas distribution infrastructure” had saved money and lowered emissions.



NY DPS Proceeding: System Expansion



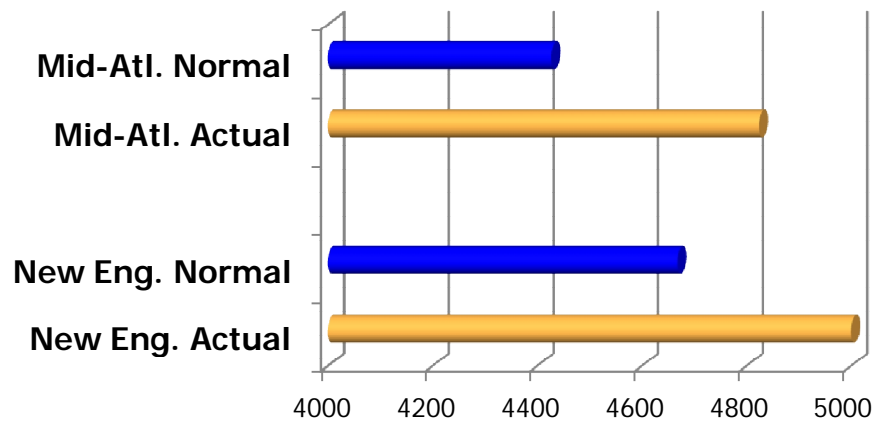
- In Nov. 2012, NY Dept. of Public Service (DPS) opened proceeding on gas expansion in NY State.
- DPS: there are about 500,000 customers in the State within 100 feet of an existing gas main, and about the same number further than 100 feet away from a gas main but within an approved natural gas franchise, that do not currently have gas service
- Technical conferences held, ongoing review underway.

Stresses Revealed by Recent Winter



It Was Cold...

Heating Degree Days, Nov. 2013 - Mar. 2014



Source: U.S. NOAA. Data thru 3/29/14.

- Coldest winter in a decade, heating degree days 10% higher than 10-year average in U.S.
- “Polar Vortex” – or “Vortices”
- Northeast 13% colder than last year

- Consistent throughput
- High demand on system infrastructure
- Several LDCs and pipelines set new records for sendout



Not Design Day, but some New Records set by LDCs



National Grid

- *12% colder than normal downstate; 11% colder than normal upstate*
- *3 top sendout records set, with Jan. 7 new record*

Con Edison

- *14% colder than normal*
- *Top 10 company throughput records all set this winter*

National Fuel Gas

- *13% colder than normal (coldest winter in 60+ years)*
- *Jan. 28, 2014 was new peak day for NY system*

Central Hudson

- *9% colder than normal*
- *New peak sendout record on Jan. 22, 2014*

NYSEG / RG&E

- *12% colder than normal*
- *Highest sendout in 10 years on RG&E system – but no new peak days on either system*

Pipeline Systems: High Utilization

- High system utilization all winter
- Restrictions reflected limited available capacity
- Some limited pipeline equipment issues but short-term, and inter-pipeline coordination very strong
- New peak day records set by NY ISO and PJM (Jan. 7, 2014)
- Richard Levitan, at NGA Market Trends Forum, May 1:
 - “Direct-connect generators *w/ confirmed gas noms* largely successful operating on gas, incl. during System Alerts and OFOs”

Days with Zero Interruptible Capacity

(Algonquin Gas Transmission)

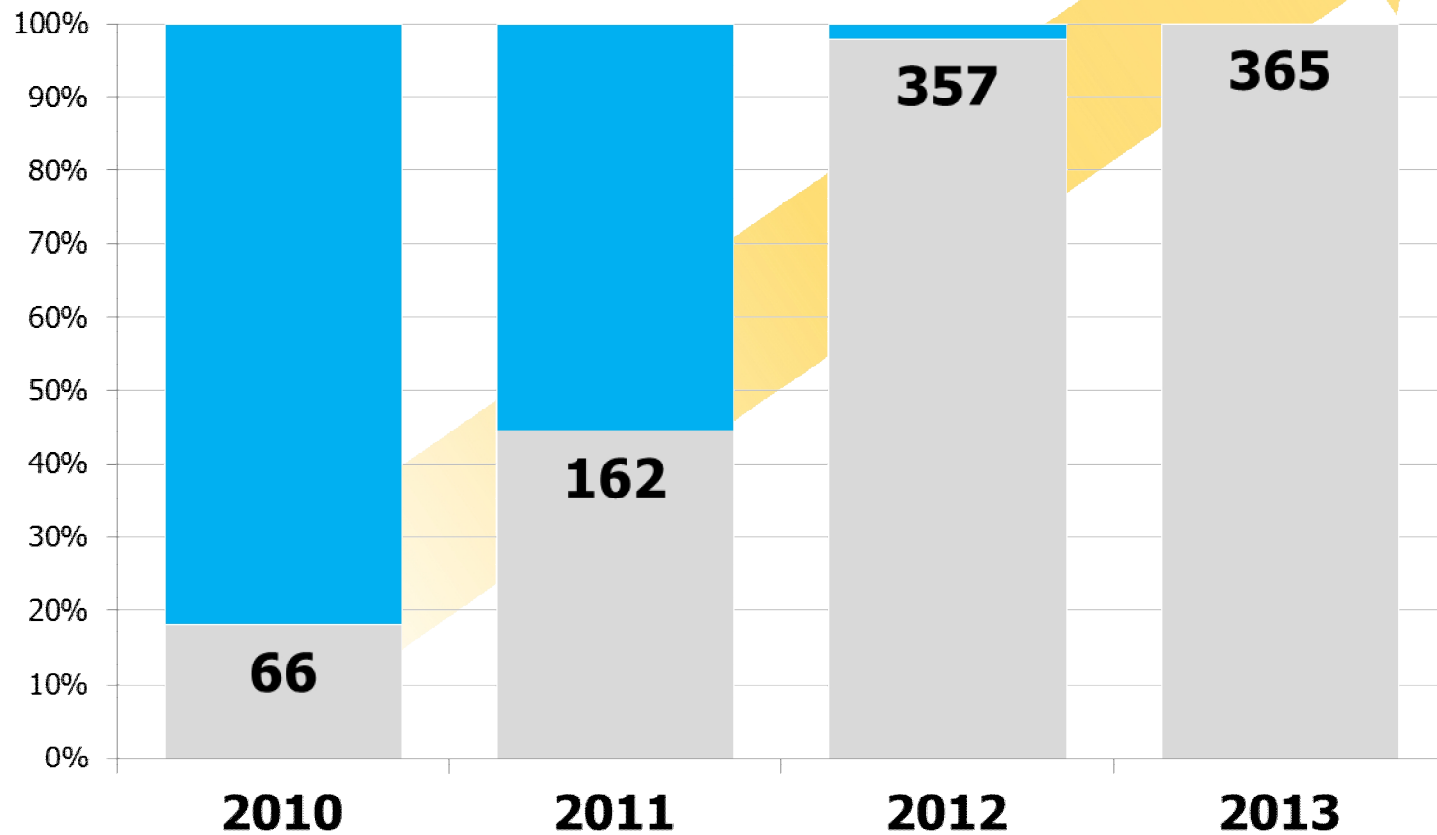


Chart: Spectra Energy

Spot Price Sets New Records

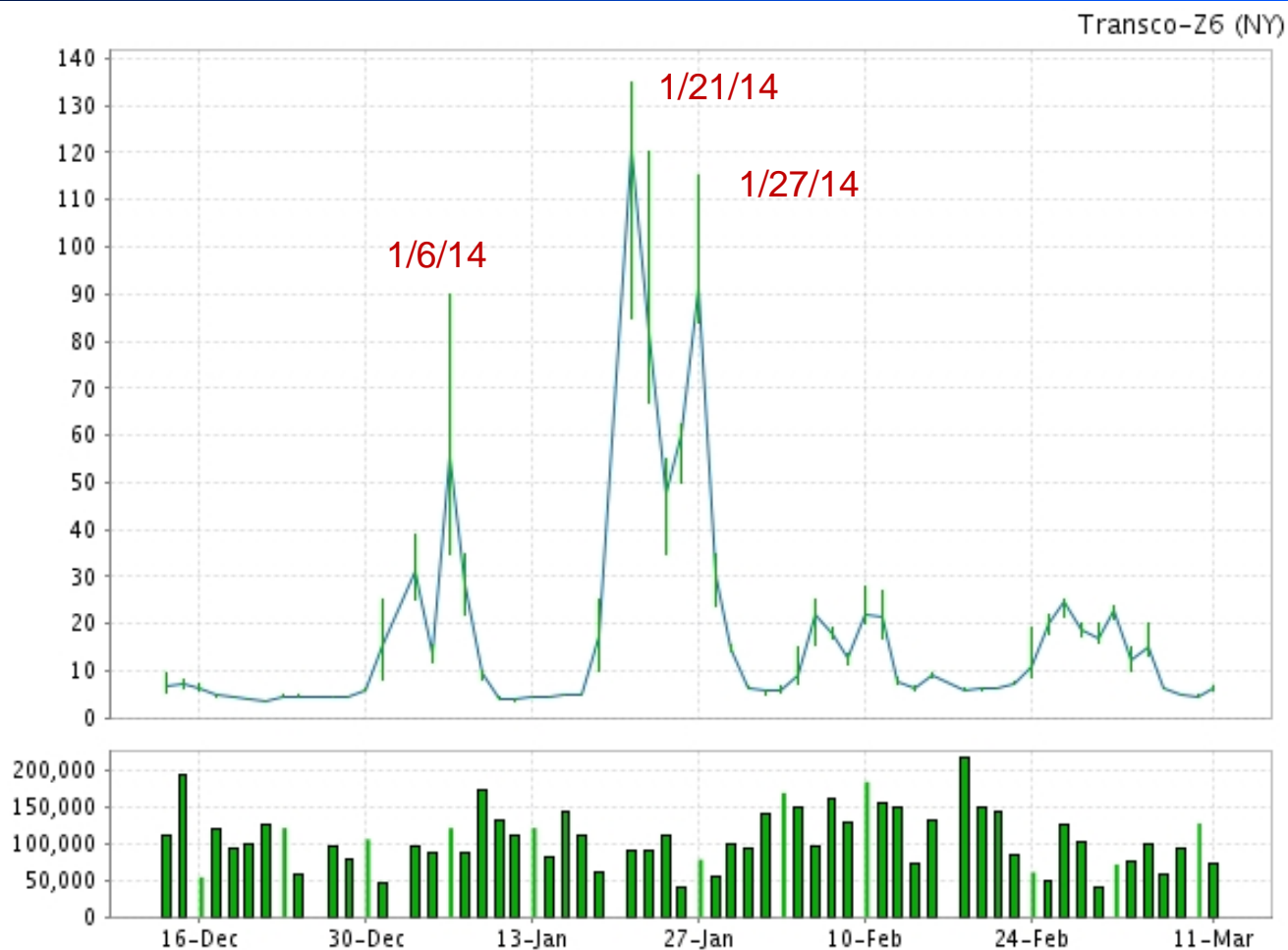


Chart: Intercontinental Exchange (ICE)

LDC Customer Prices Stable Compared to Secondary Market Prices



Yankee and NSTAR PGA/CGA vs. Henry Hub and AGT City Gate
\$/MMBtu

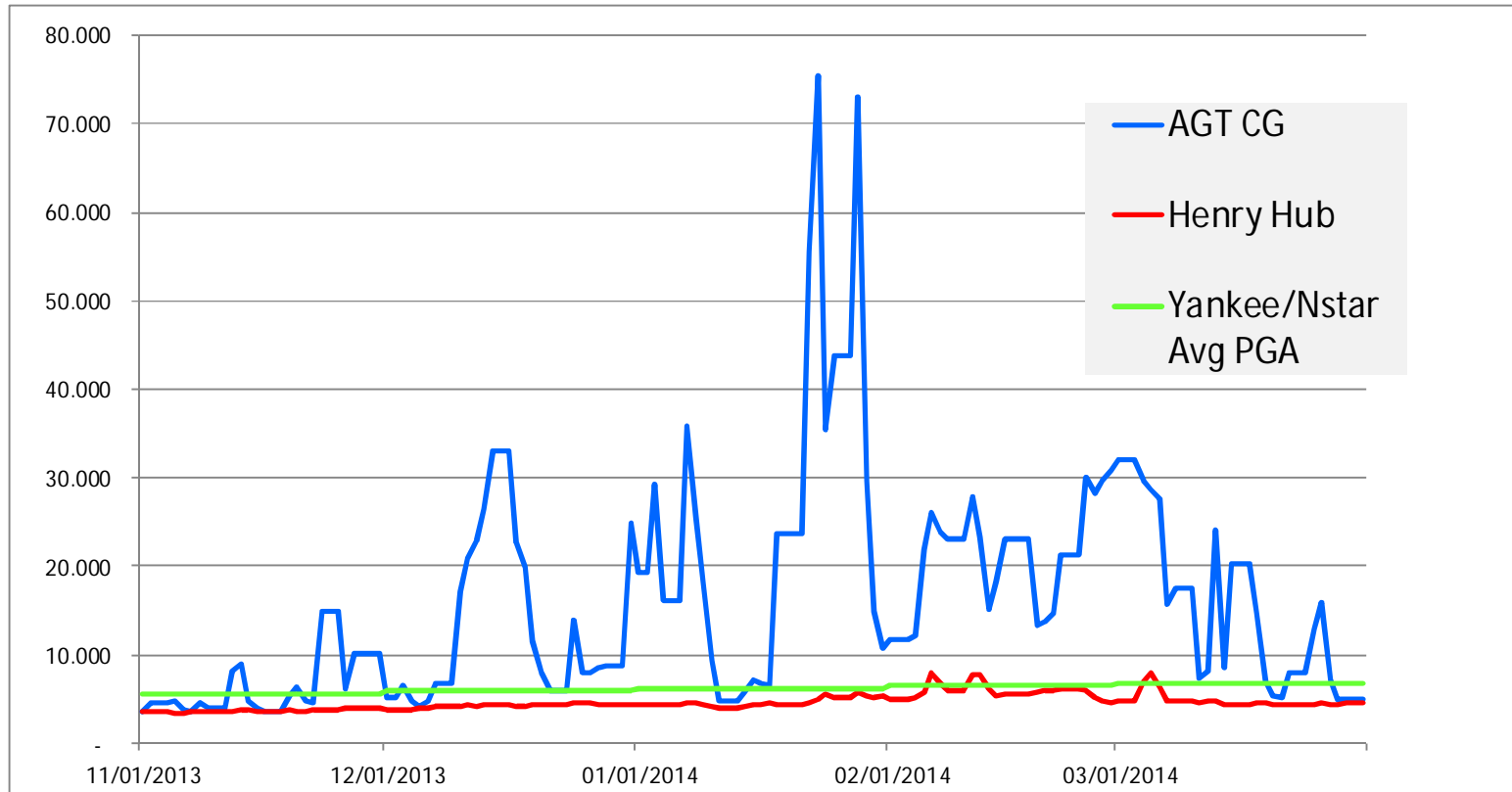


Chart: Northeast Utilities

Hartford Courant- Jan. 2014



Solutions & Market Opportunities



LDCs Can & Are Signing Up – but Can / Will Gens?

Spectra's AIM Project

Customers/Shippers:

- UIL Holdings
- Northeast Utilities
- National Grid
- NiSource
- City of Middleborough, MA
- City of Norwich, CT

TGP's Connecticut Expansion Project

Customers/Shippers:

- UIL Holdings
- Northeast Utilities

New England Governors' Energy Infrastructure Initiative



Need to increase
pipeline capacity
into region – **by
1 Bcf**



Need to increase
electric transmission
capacity from clean
energy sources into
region – **by 1,200 to
3,600 MW**

Summary

- ◆ Marcellus production in the Northeast continues to be robust, leading to greater supply availability and lower price opportunities
- ◆ New gas pipeline development activity continues to be active in the NY/NJ/PA area, to move new area supplies to markets.
- ◆ NY DPS continues to explore opportunities to increase access to natural gas for all parts of the State.
- ◆ Contract arrangements key to gas supply availability.



**75 Second Avenue, Suite 510
Needham, MA 02494-2859
Tel. 781-455-6800**

**20 Waterview Boulevard, 4th Floor
Parsippany, NJ 07054
Tel. 973-265-1900**

www.northeastgas.org