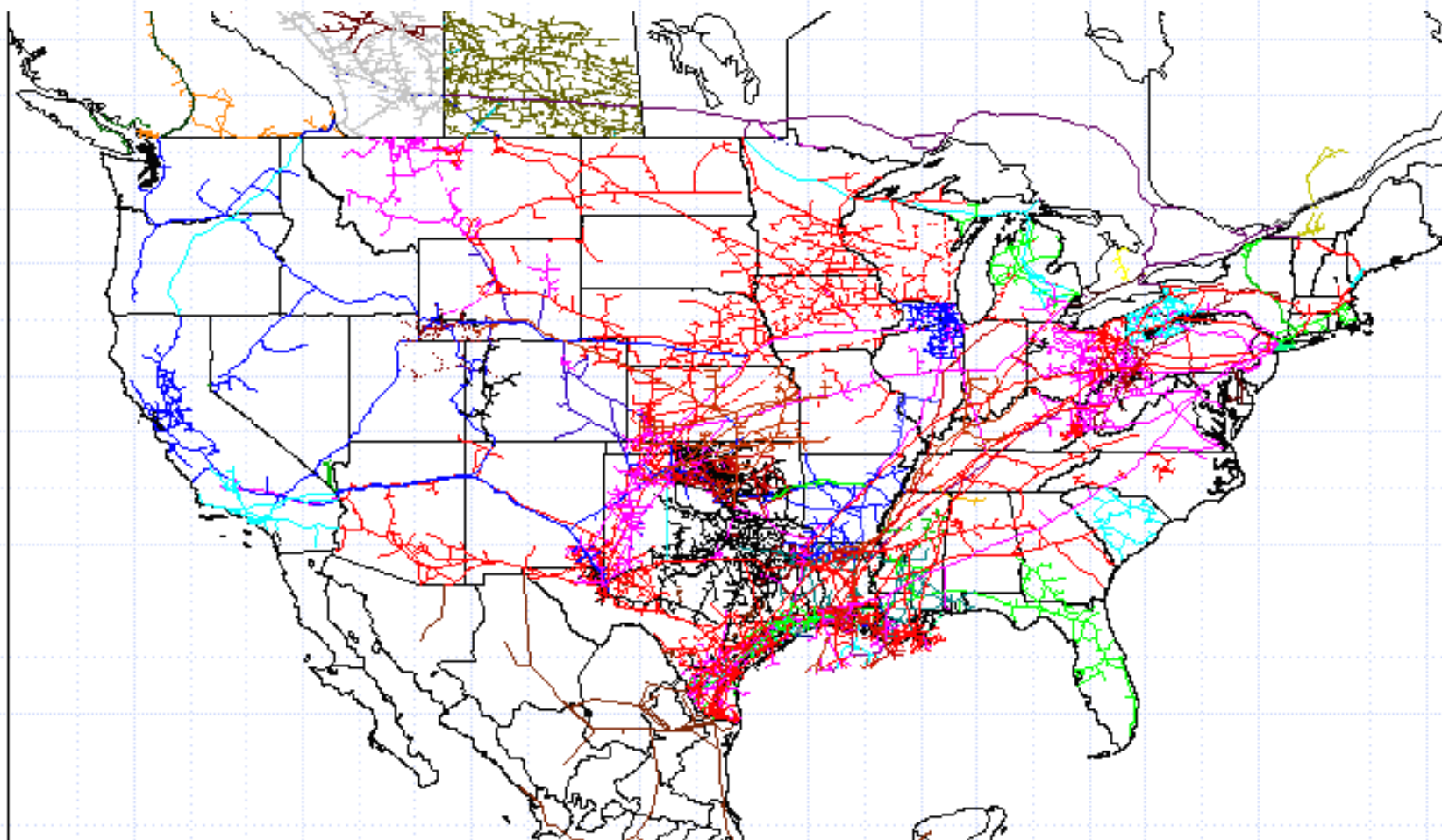


# Summary of New York's Natural Gas Statistics



Cindy McCarran, Chief  
Gas Policy & Supply Section  
Office of Electricity, Gas and Water

# A Vast Network of Pipelines Provides Interstate Transportation



# Pipelines Serving New York State

## Design Day Capacity – Send-out Year 2010

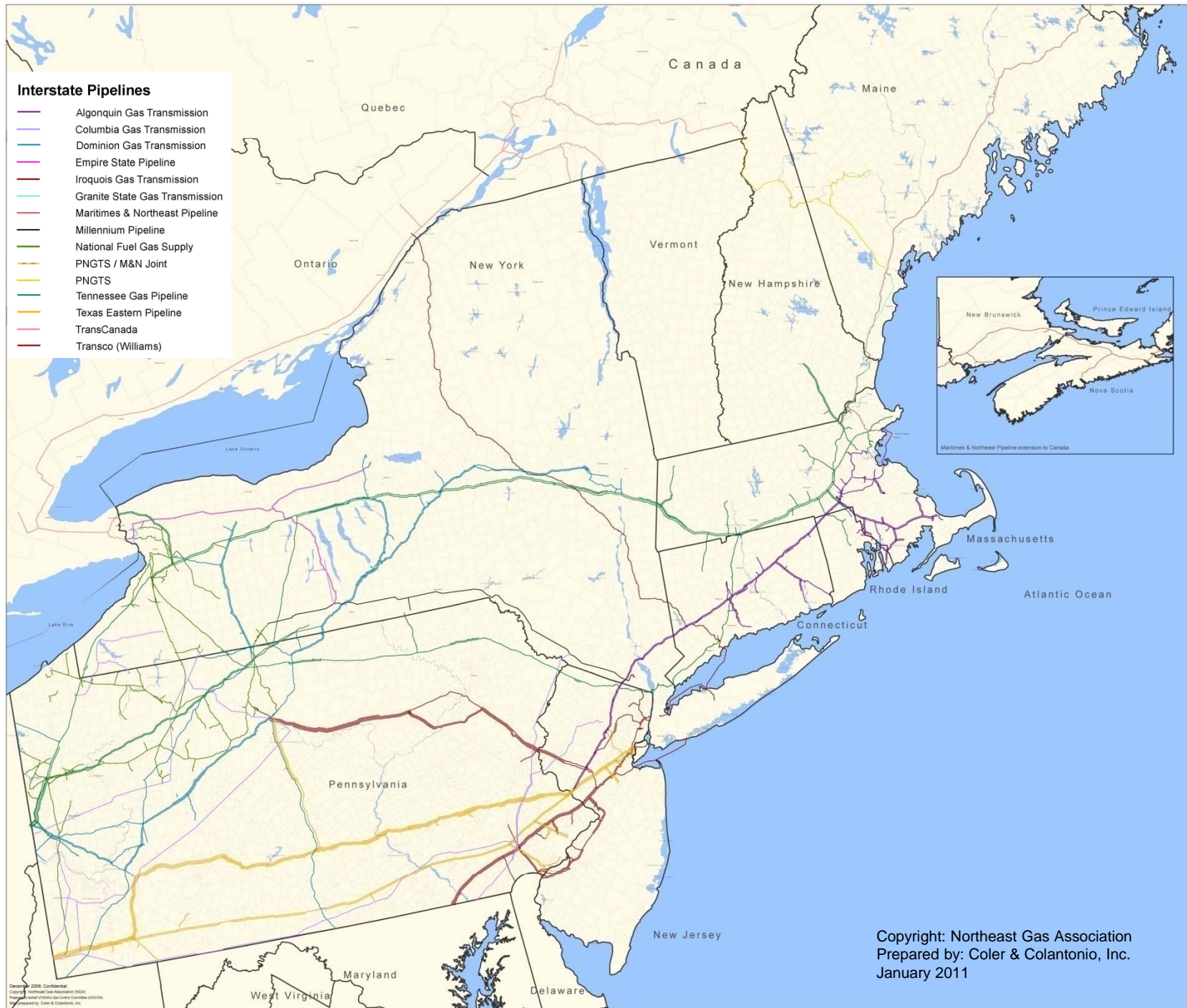
Pipeline	MDT	Central Hudson	Con Edison	Corning	National Grid NY	National Grid LI	National Fuel	NYSE&G	Upstate National Grid	Orange & Rockland	Rochester Gas & Electric	Lawrence St.
Transco (Williams)	1,030											
Dominion	1,291											
National Fuel Supply	1,102											
Iroquois	324											
Tetco (Spectra)	483											
Empire (NFGS)	173											
Tennessee	336											
North Country	4											
Algonquin (Spectra)	80											
Columbia (NiSource)	123											
Millennium	81											
TransCanada	21											
Appalachian Production	55											
<b>Total</b>	<b>5,103</b>											

Note: The volumes indicate city gate delivery capacity only. LDCs may also be served by pipelines upstream of the city gate. Most LDCs transport Appalachian Production through pipeline contracts. The volume presented is directly connected to the LDC system.



### Interstate Pipelines

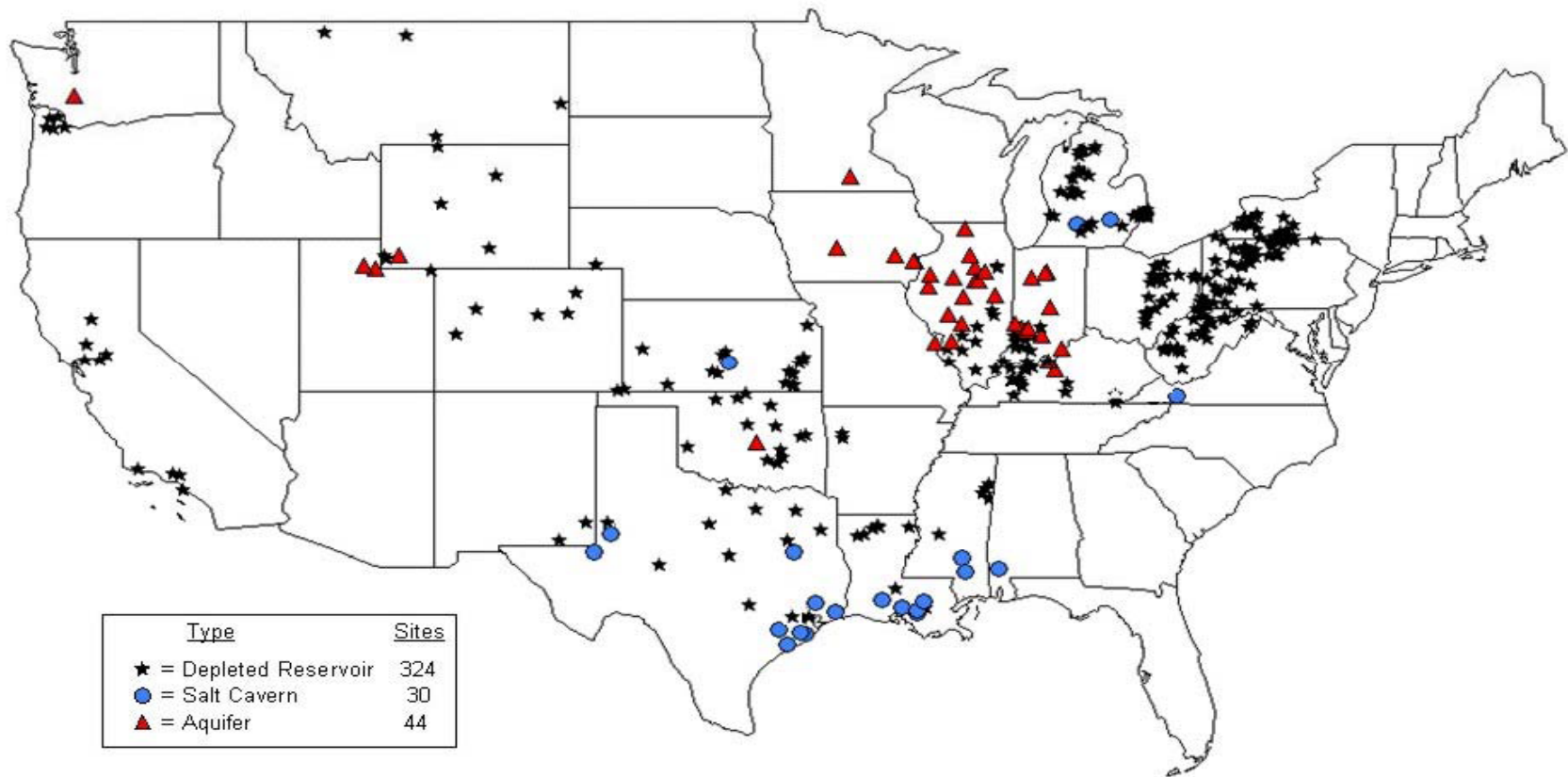
- Algonquin Gas Transmission
- Columbia Gas Transmission
- Dominion Gas Transmission
- Empire State Pipeline
- Iroquois Gas Transmission
- Granite State Gas Transmission
- Maritimes & Northeast Pipeline
- Millennium Pipeline
- National Fuel Gas Supply
- PNGTS / M&N Joint
- PNGTS
- Tennessee Gas Pipeline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



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 Prepared by: Coler & Colantonio, Inc.  
 January 2011

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 administered by Coler & Colantonio, Inc.

# Natural Gas Underground Storage Fields



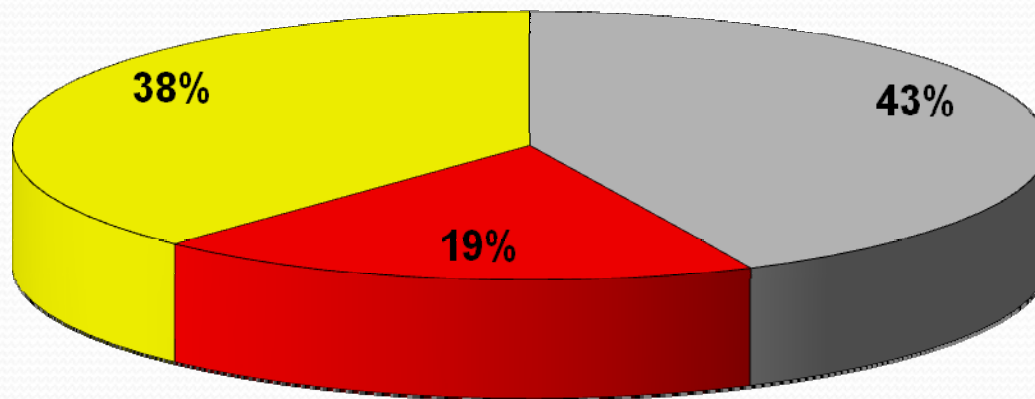
Source: Energy Information Administration (EIA), Form EIA-191A, "Annual Underground Gas Storage Report."





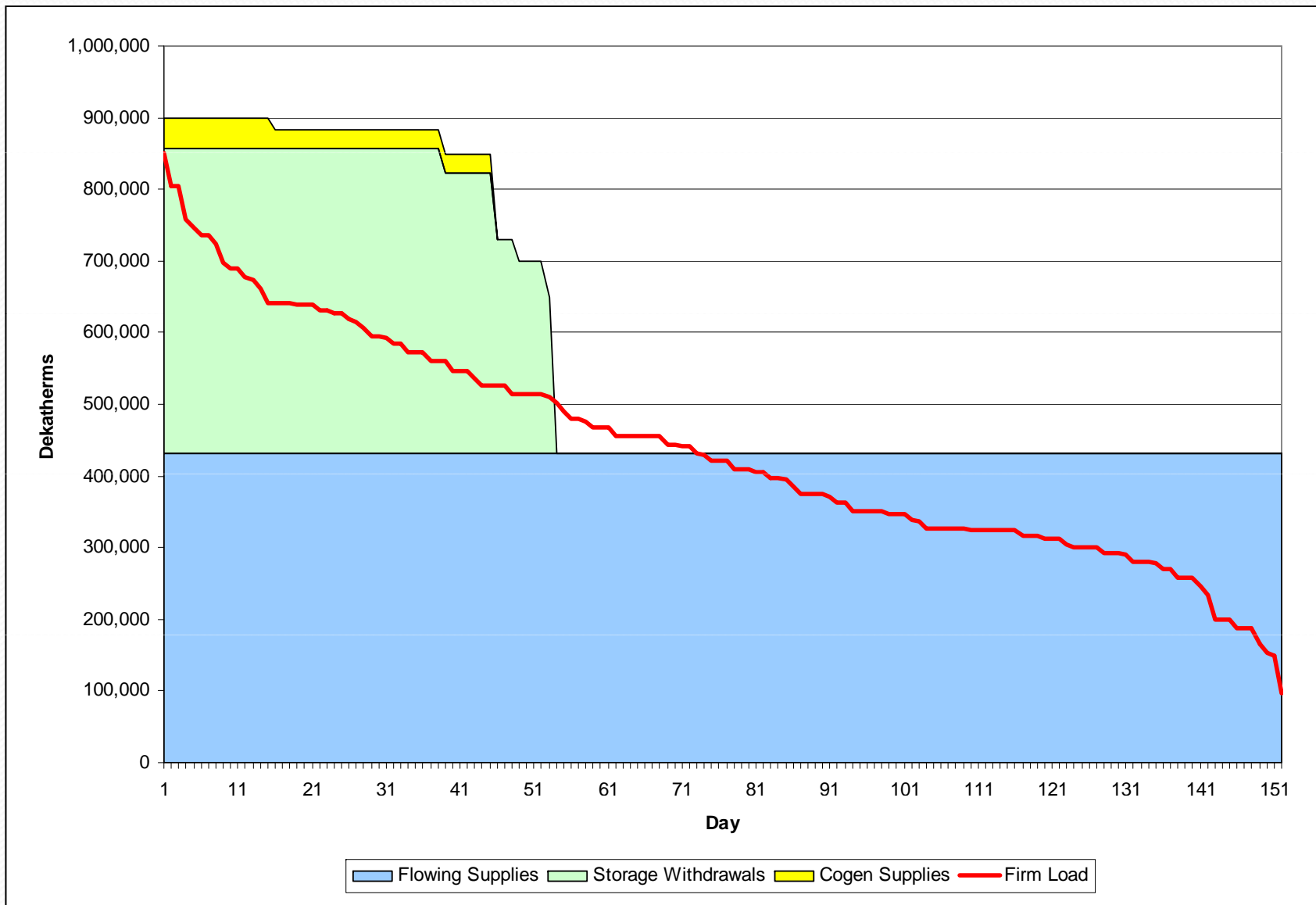
# New York State LDC

## Typical 2011-12 Winter Supply Portfolio



□ Unhedged   ■ Hedged   ■ Storage

# Load Duration Curve – Design Winter Season





# Natural Gas Customers in New York State, 2010

Customer Type	Number of Customers	Dekatherms Annually
Residential	3,846,603	323,413,000
Commercial	419,524	127,190,000
Industrial	27,152	21,919,000
Other	9,186	118,882,000
Total	4,302,465	591,404,000

- Other includes sales for resale
- The average residential customer in New York State uses about 100 Dt annually
- A 1,000 MW combined cycle natural gas plant uses about 180,000 dt per day at full output



# Planning for Peak Day

- New York's gas utilities send out about 6.7 million Dekatherms on peak day in the winter
- The gas utilities plan for a design day, which is based on a value of heating degree days, and ranges from 62 in New York City to 84 in Massena
- 62 HDDs is an average temperature of three and 84 is an average temperature of -19
- These values are chosen based on historical data and are rarely experienced



# Natural Gas Peaking Facilities

## LNG Facilities

- Natural gas at -260 degrees F is a liquid. Stored at that temperature to keep it in a liquid state, 1/600<sup>th</sup> of gaseous volume
- LNG facilities provide huge volumes of gas for the very coldest days of the winter
- Inventory of the storage facility can be depleted in just a few days at maximum vaporization rates
- Liquefaction rates are only a small fraction of the vaporization rates; refill takes a whole season to replace



## Natural Gas Peaking Facilities....cont'd

There are three LNG facilities in New York State:

- Con Edison facility located in Astoria
  - 1050 Mdt capacity
  - 166 Mdt/d vaporization capability
- KeySpan NY facility in Greenpoint
  - 1600 Mdt capacity
  - 291 Mdt/d vaporization capability
- KeySpan LI facility in Holtsville
  - 600 Mdt capacity
  - 103 Mdt/d vaporization capability

## Natural Gas Peaking Facilities....cont'd

### Peaking Supply Contracts:

- In Territory (within the distribution system boundary)
  - Purchase of firm supply from dual fuel electric generators
  - Purchase of firm supply from dual fuel industrial customers
  - These contracts typically allow for the interruption of the customer for as many as 10 to 20 days each winter season
- City Gate Delivery
  - Purchase of firm supply on short notice
  - Usually contracted with a marketer or ESCO
  - Priced on the daily spot market
  - Usually set for a specific maximum number of days (10,20, 30, etc.)
- Firm storage withdrawal/transportation delivery





Questions?