

# Critical Infrastructure Panel

**AABE Conference**

**April 20, 2012**

# Agenda

- Gas System Overview
- Integrity Management
- Programs
- The Future



# Con Edison Gas System Overview

- Service Area ~ 660 square miles
- Manhattan, Bronx, part of Queens & Westchester
- 1.1 million customers



# Con Edison

## Gas System Overview

- 88 miles of transmission mains > 125 psig
  - 50 miles of DOT defined transmission pipe
  - 6 inch to 36 inch diameter
- 4300 miles of distribution mains
  - 1-1/4 inch to 36 inch diameter
  - Operating at 4" w.c. to 99 psig

# Transmission Integrity Management

- **3<sup>rd</sup> Party Excavations**

- Contractor oversight – monitor excavation activities
- Transmission system patrol – weekly system patrol, daily in Manhattan
- Leak survey – three times per year
- Code 753
- Install steel protection plates

- **External Corrosion**

- Cathodic Protection
- Periodic Testing
- Direct Assessment

- **Water Impingement**

- Install Rubber Mats

- **Cold Gas**

- Gate Station Heaters

# Transmission Integrity Management

## Remote Operated Valve (ROV)

- Rapidly isolate the transmission system at river and tunnel crossings and the outlet of gate stations
- Rapidly separate intersecting transmission or supply mains thereby minimizing affected areas
- ROVs installed
- Additional ROVs will isolate smaller sections with less customer impact
- SCADA system monitoring



# Transmission Integrity Management

## Post San Bruno Initiatives

- Transmission records search to validate MAOPs
- R&D Initiatives
  - Internal inspection tools for un-piggable pipe
    - 2012 plan to smart pig 8" main in Manhattan
    - 2012 plan to smart pig 24" main in Bronx
    - 30-36" ILI and crack sensor in development
  - Acoustic Leak Detection
  - Gas Control Simulator
- Inspect exposed transmission mains
- Improved oversight/controls for excavation activities near transmission mains

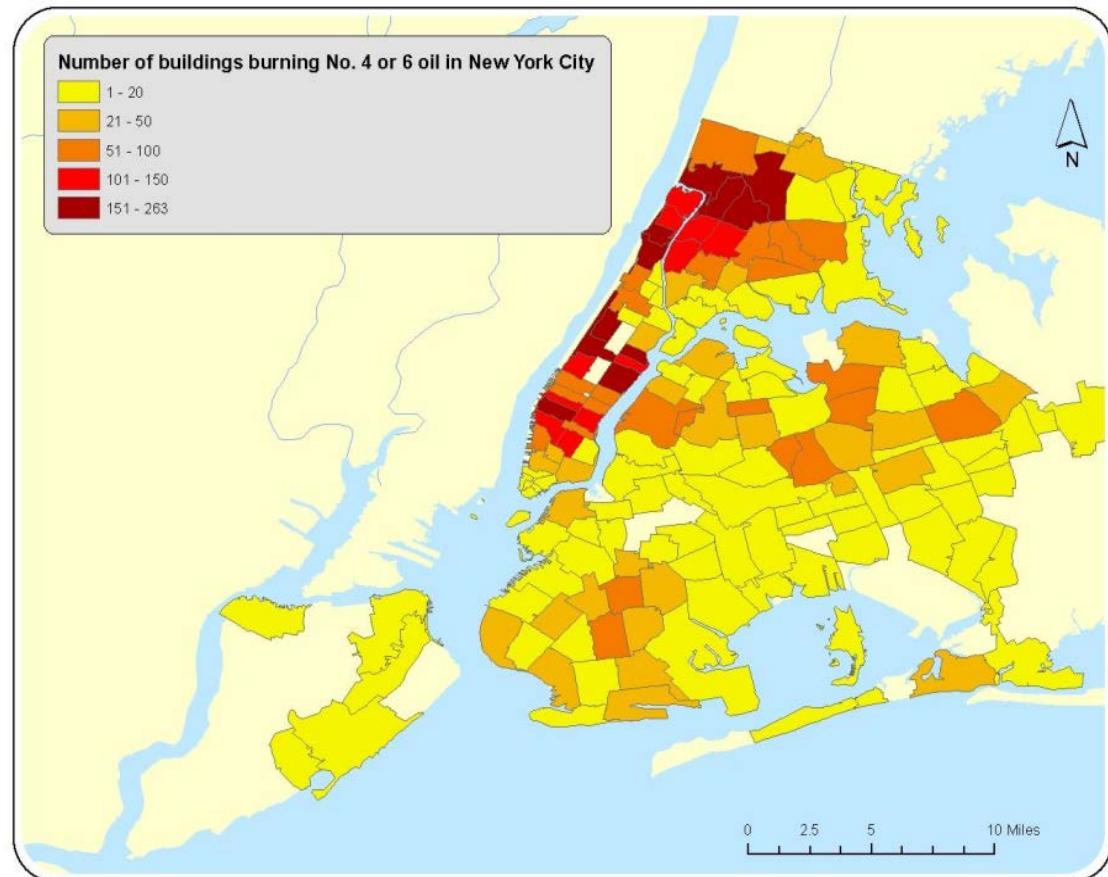


# Distribution Integrity Management

- Multiple Resource Response Event (Code MuRRE)
- Over 35,000 safety inspections annually
- Capital Main Replacement Program
- Code 753 Compliance/Damage Review Committee
- Annual leak survey of entire distribution system
- Training and drills
- Customer awareness for safety issues

# The Future PlaNYC Clean Heat Initiative

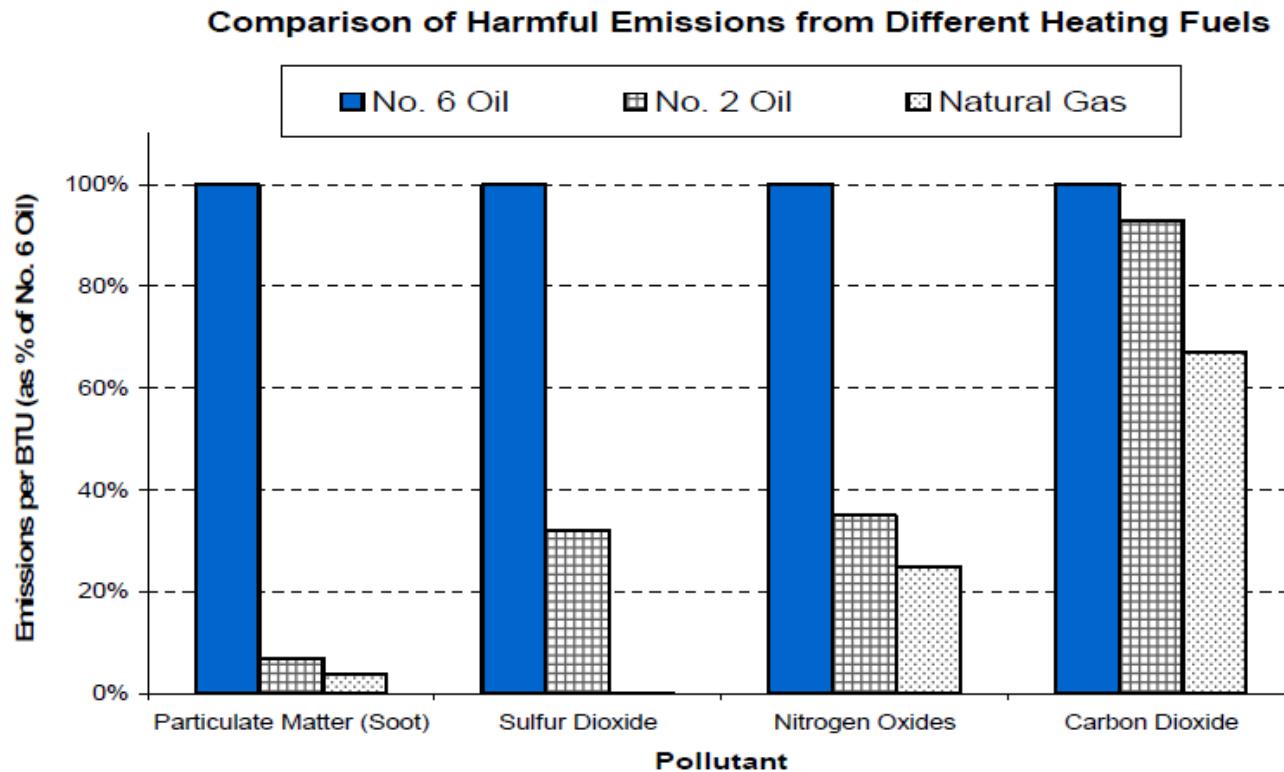
- The city has adopted a rule to phase out the use of heavy heating oils by 2030
- This initiative affects approximately 7,000 buildings in CECONY gas service area



Source: NYC DEP  
Database

# The Future PlaNYC Clean Heat Initiative

- Natural gas produces much lower emissions than either residual or distillate fuels



Source: EDF Study

# The Future New Gas Supply to Manhattan

- Strengthens reliability of the natural gas system
- Improves air quality and is consistent with the goals of New York City's PlaNYC 2030
- Meets growing energy needs in NYC
- Provides access to multiple supply sources
- Reduces commodity price volatility by assuring adequate supplies and delivery of natural gas

# Summary

- Growing demand for natural gas driven by
  - Supply abundance
  - Environmental regulations
  - Cost spread between oil and natural gas
- Increased focus on Pipeline Safety