

Dual Fuel Requirements in New York City

Electric-Gas Coordination Working Group

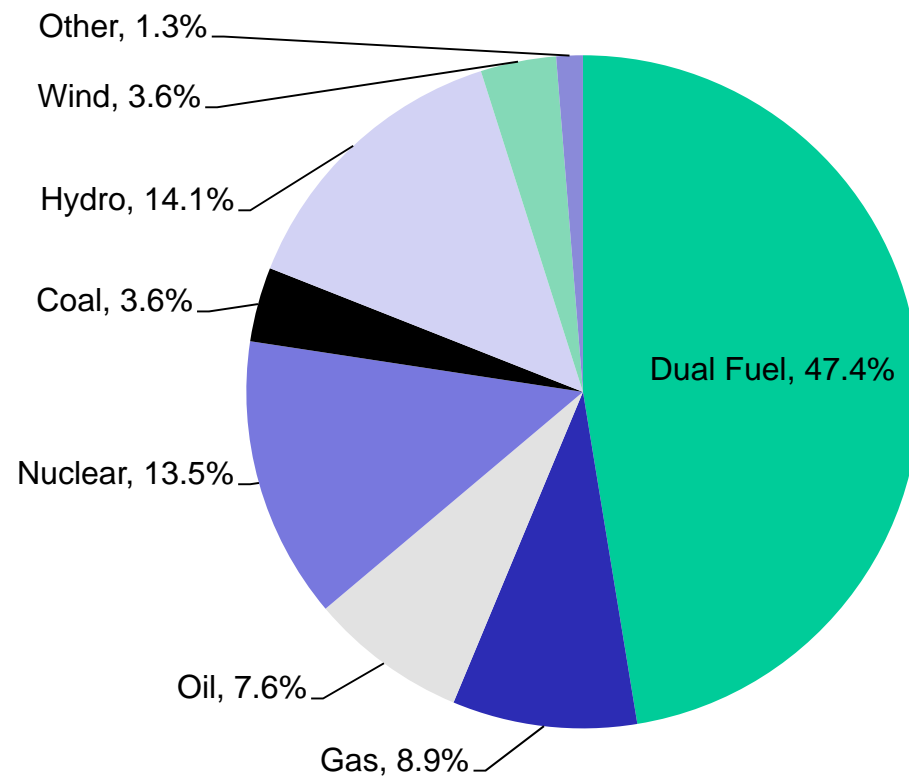
September 17, 2014

Agenda

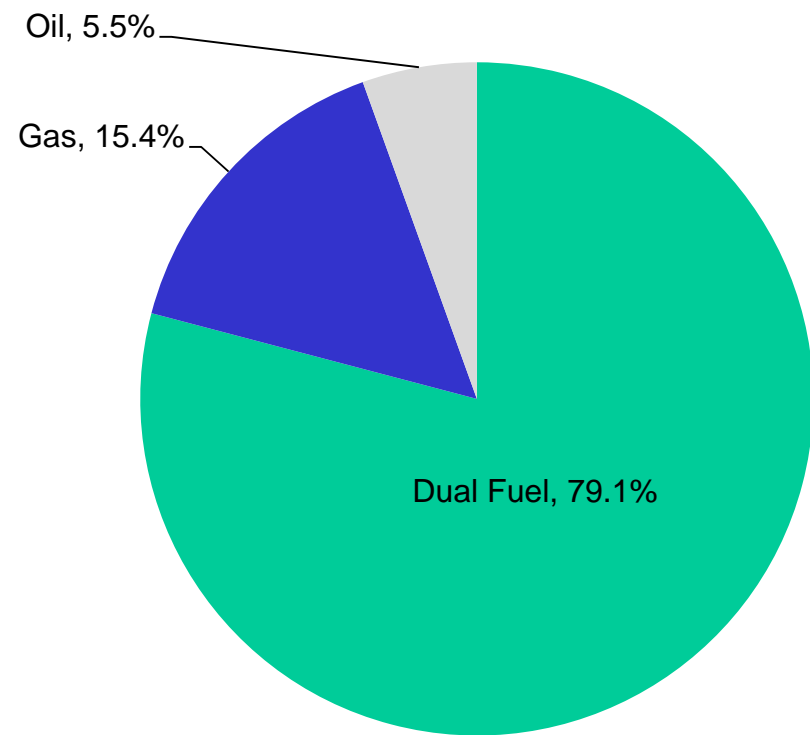
- Need for dual fuel capability in New York City
- Current NYC requirements
- Enhancement Proposals

New York Generating Capacity by Fuel Source (Winter Ratings)

New York State



New York City



Source: NYISO Gold Book 2014

Need for Dual Fuel Capability in NYC

- Non-gas resources are needed in NYC during certain conditions (e.g., gas system contingencies)
- Locational needs for dual fuel capability will vary over time, as system changes and units enter and exit the market

NYC Generator Requirements

- Con Edison gas service requirements:
 - Off-peak firm service applicable to generators above 50 MW requires dual fuel capability
 - Prior to winter season, generators must demonstrate that they have 5 days of back-up fuel (some potentially may be off-site)
 - Interruptions generally limited to 720 hours full load equivalent
- Potential future issues:
 - Procedures apply only to generators connected to Con Edison's gas system, not those connected to National Grid or interstate pipelines
 - Back-up fuel is only verified once per year by certification

NYC Generator Requirements

- Con Edison transmission planning criteria
 - Incorporated by reference in NYISO interconnection procedures
 - New units must have auto swapping if on Con Edison gas system and meet auto swap timing criteria
 - Requires semi-annual testing of auto swapping by new units
- Potential future issues
 - Auto-swap only required for units on Con Ed's gas system, not other NYC generators
 - MOB implementation currently relies heavily on existing units with auto swap capability, but those pre-dating establishment of criteria are not always subject to regular testing obligations

Proposed Enhancements

- Require dual fuel and auto swapping for generators interconnected electrically in NYC, not just on Con Edison gas system:
 - Option 1. NYISO interconnection rule for new gas generators
 - Option 2. ICAP supplier requirements
 - Option 3. Local reliability rule
- Promote operational availability of dual fuel capability:
 - Regular verification of back-up fuel supplies (5-day requirement)
 - Semi-annual testing of new and existing auto swapping capability
- Cost recovery: NYC CONE already includes dual fuel costs