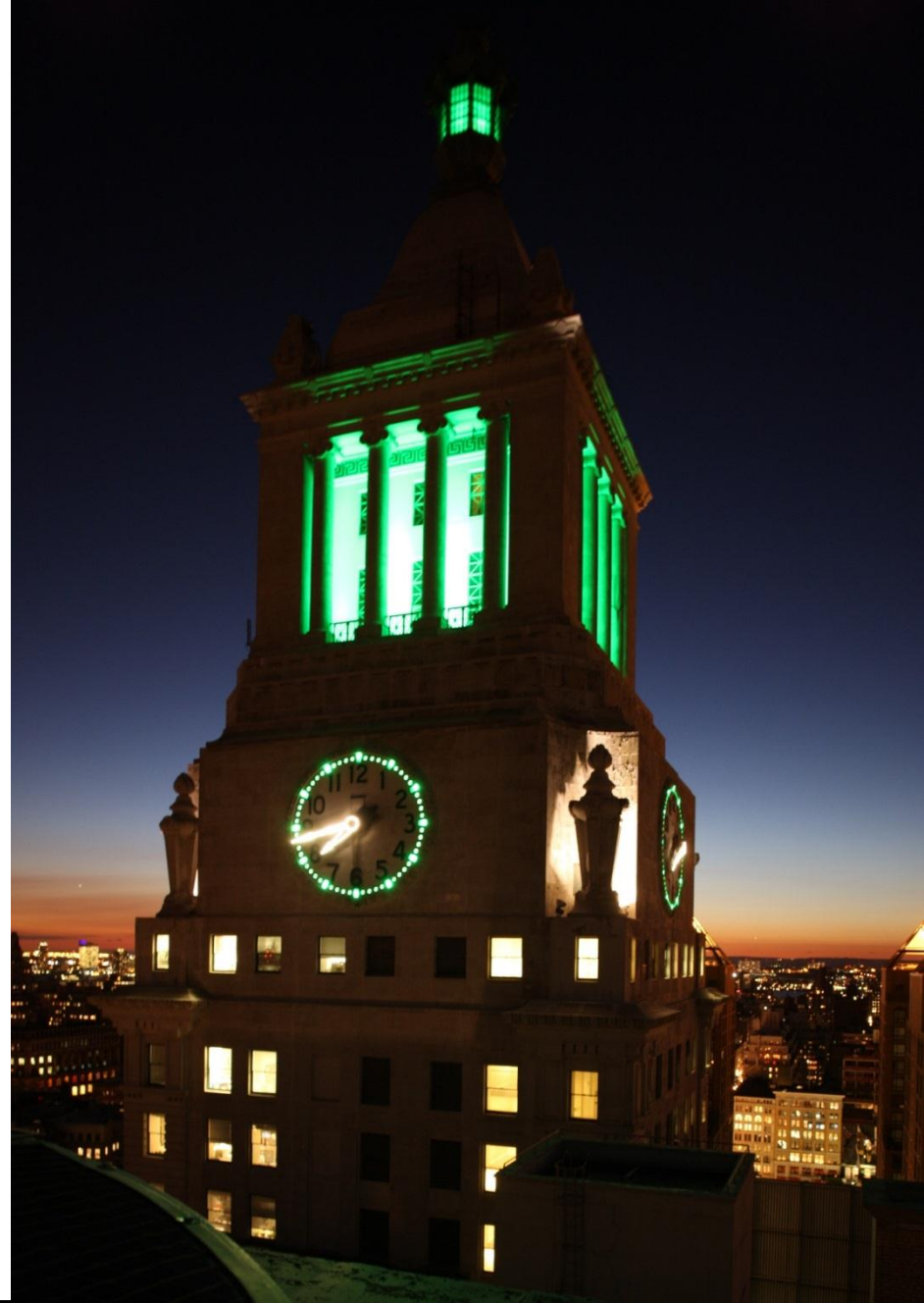


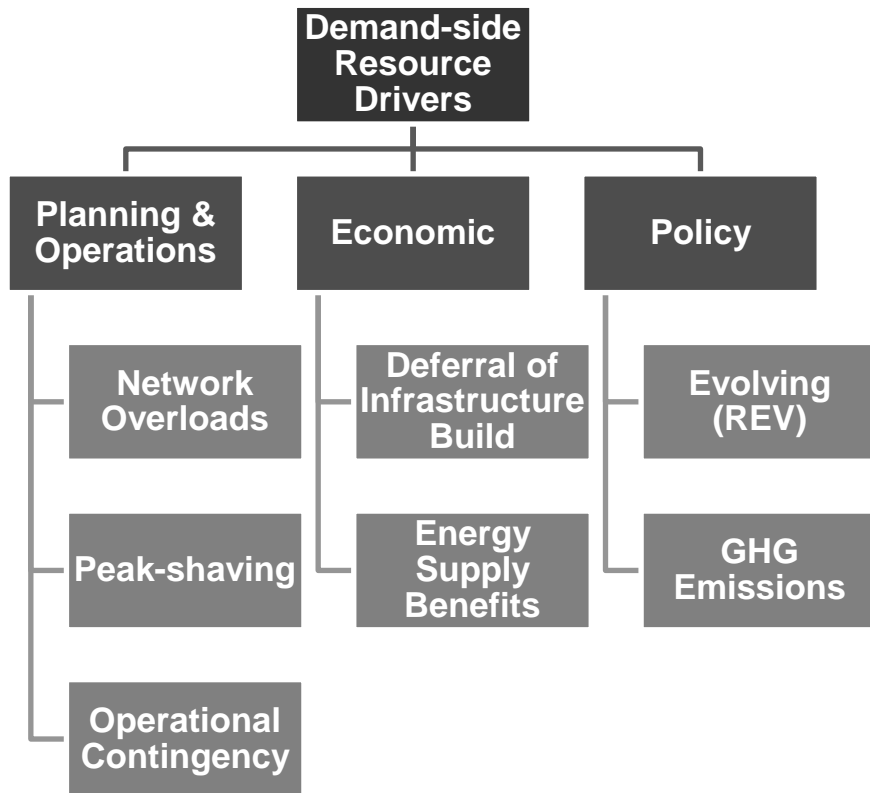
# **Con Edison's Use of Targeted Demand-side Resources**

**May 14, 2015**

**Rebecca Craft  
Director,  
Energy Efficiency and  
Demand Management  
Con Edison**

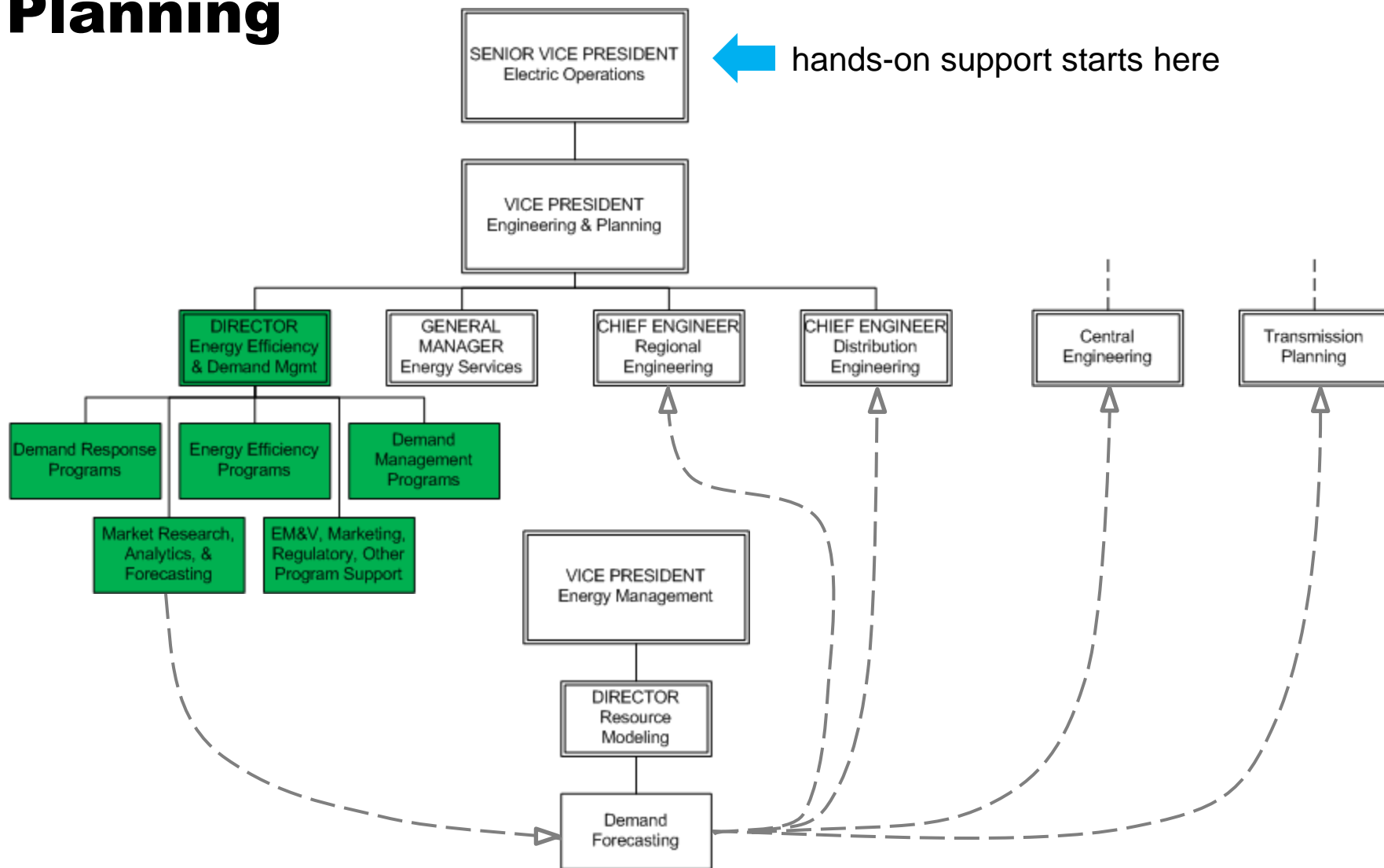


# Demand-side Resources Drivers and Programs

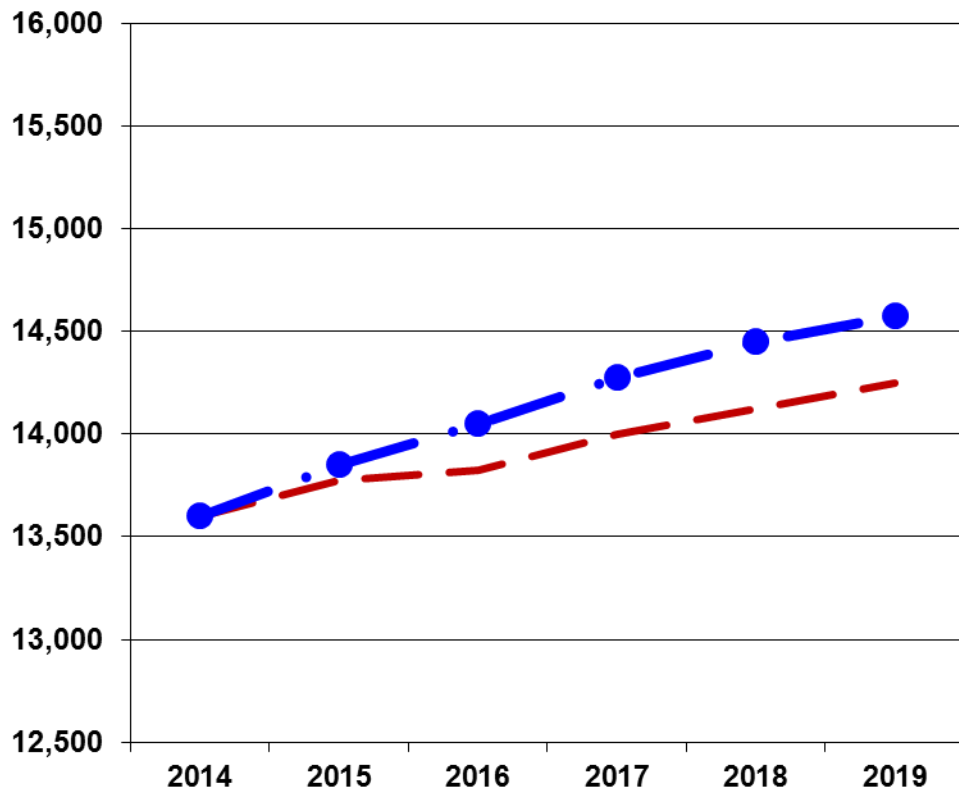


- Demand Management Program(s)
  - Targeted for network overloads
  - Infrastructure deferral
  - Con Edison programs since 2005
- Demand Response Programs
  - For contingency and peak-shaving
  - Infrastructure deferral
  - Con Edison programs since 2002
- Energy Efficiency Programs
  - To reduce GHG emissions
  - Con Edison programs since 2008

# DSM is integrated into Engineering & Planning



# DSM: A Measurable Impact on Demand

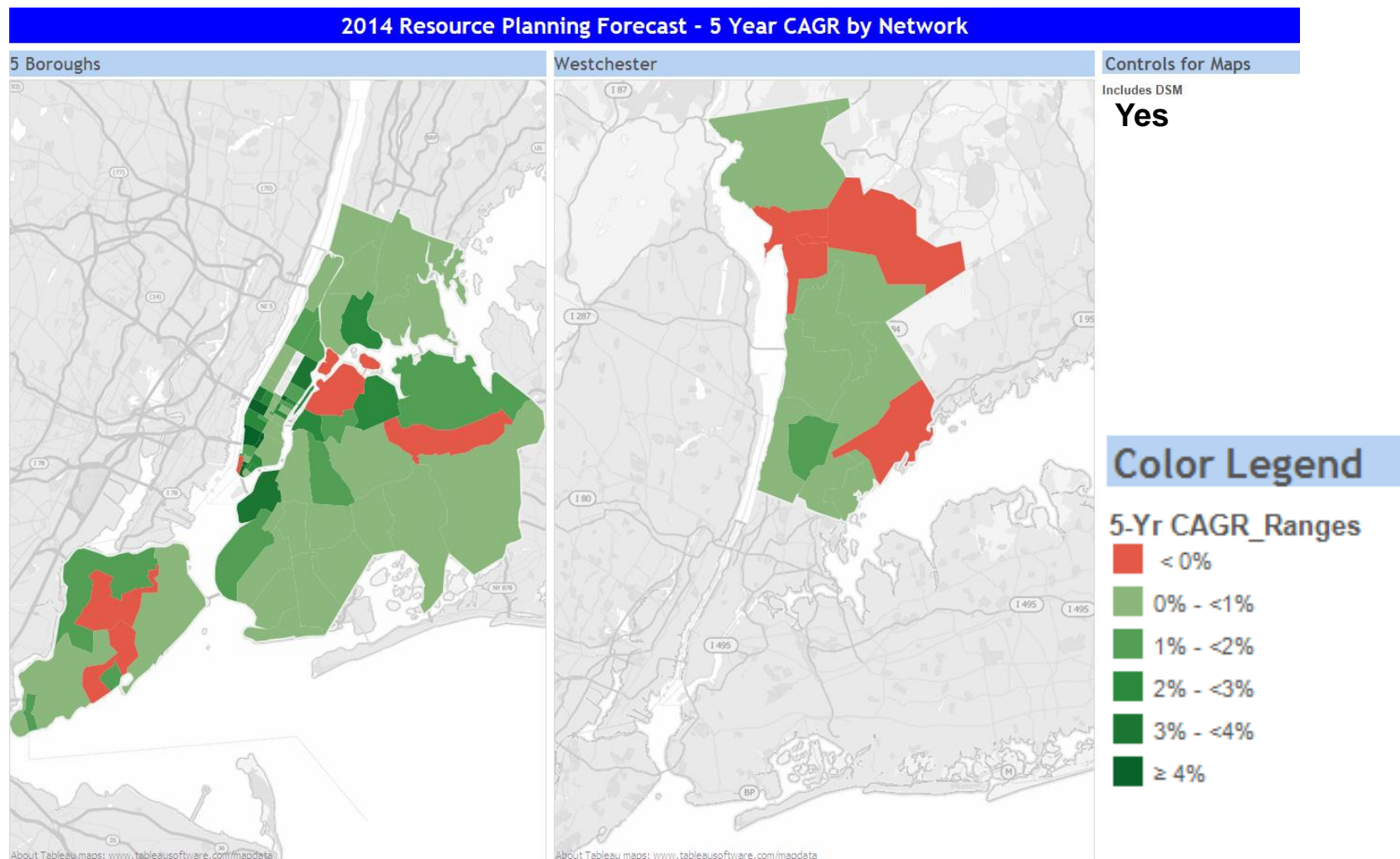


Including DSM in the forecast reduces peak demand growth by 35% over next 5 years

— September 2014 Forecast w/ DSM      —●— September 2014 Forecast w/o DSM

# DSM impacts varies by electric load area

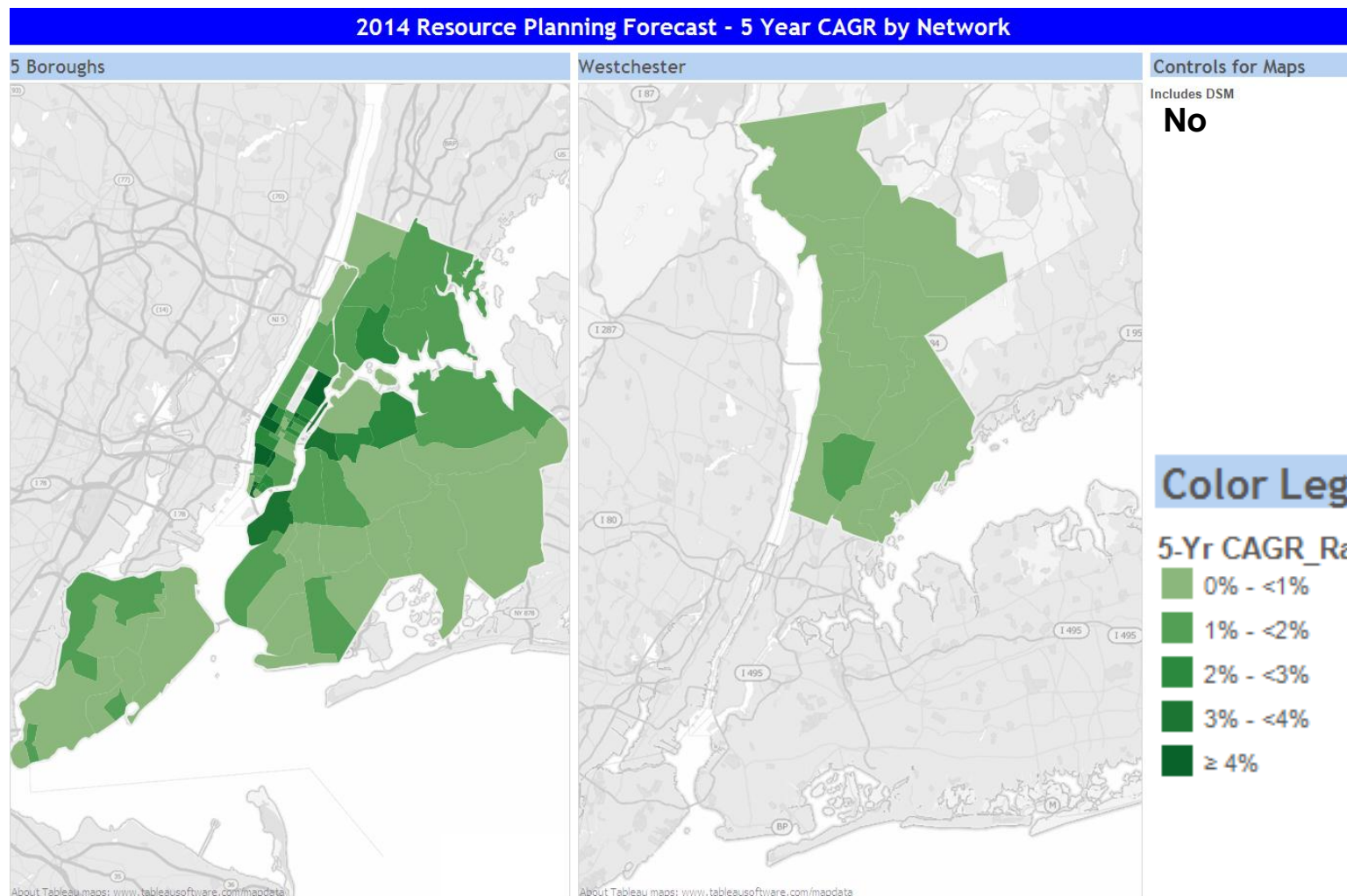
## Bottom-up Forecast with DSM included



Notes:  
 - Richmond Hill is split out between Brooklyn and Queens for illustration only. Data reflect total Richmond Hill values and are not additive.  
 - Westchester network Shrub Oak is new and not included in map above.

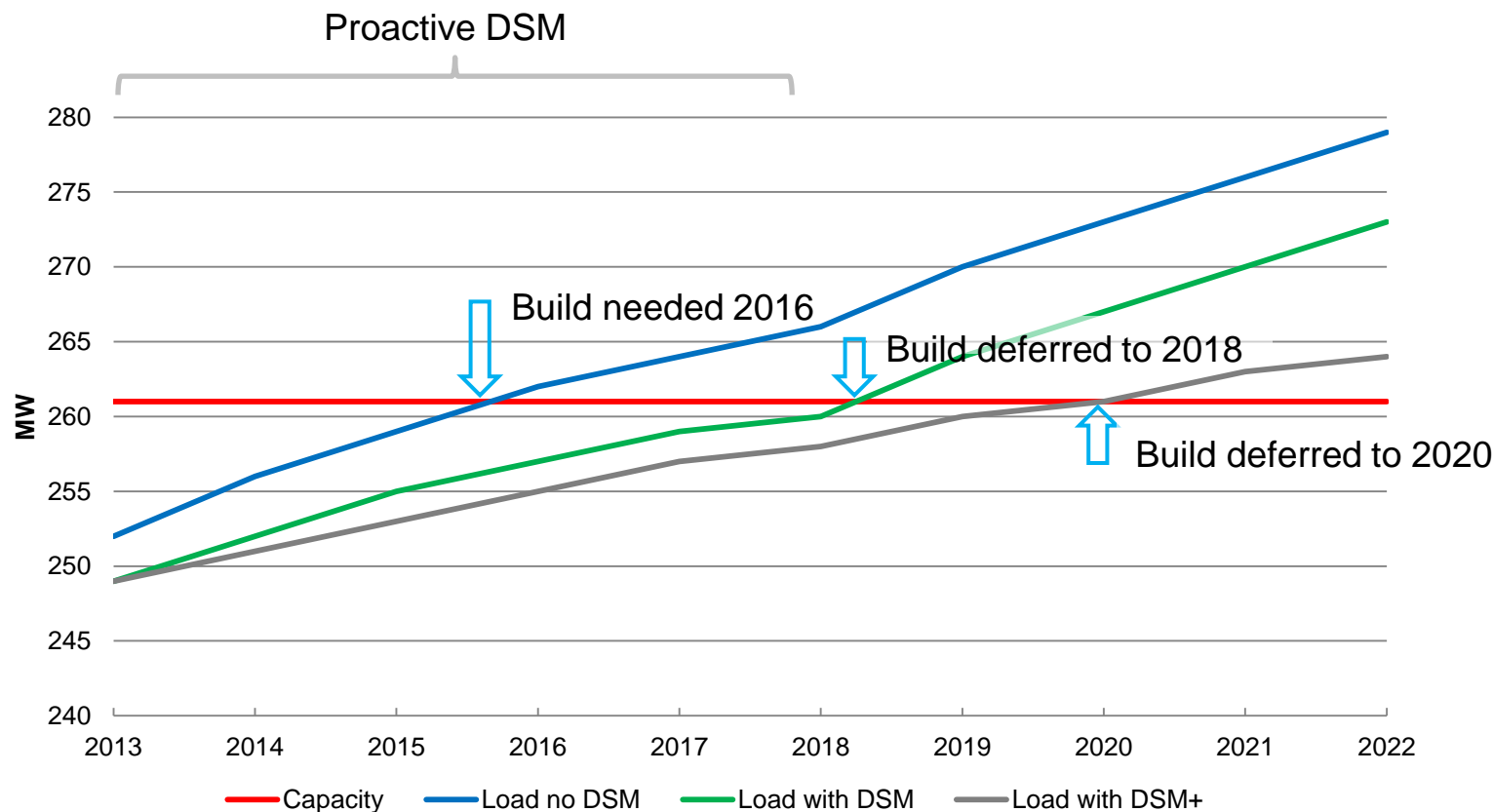
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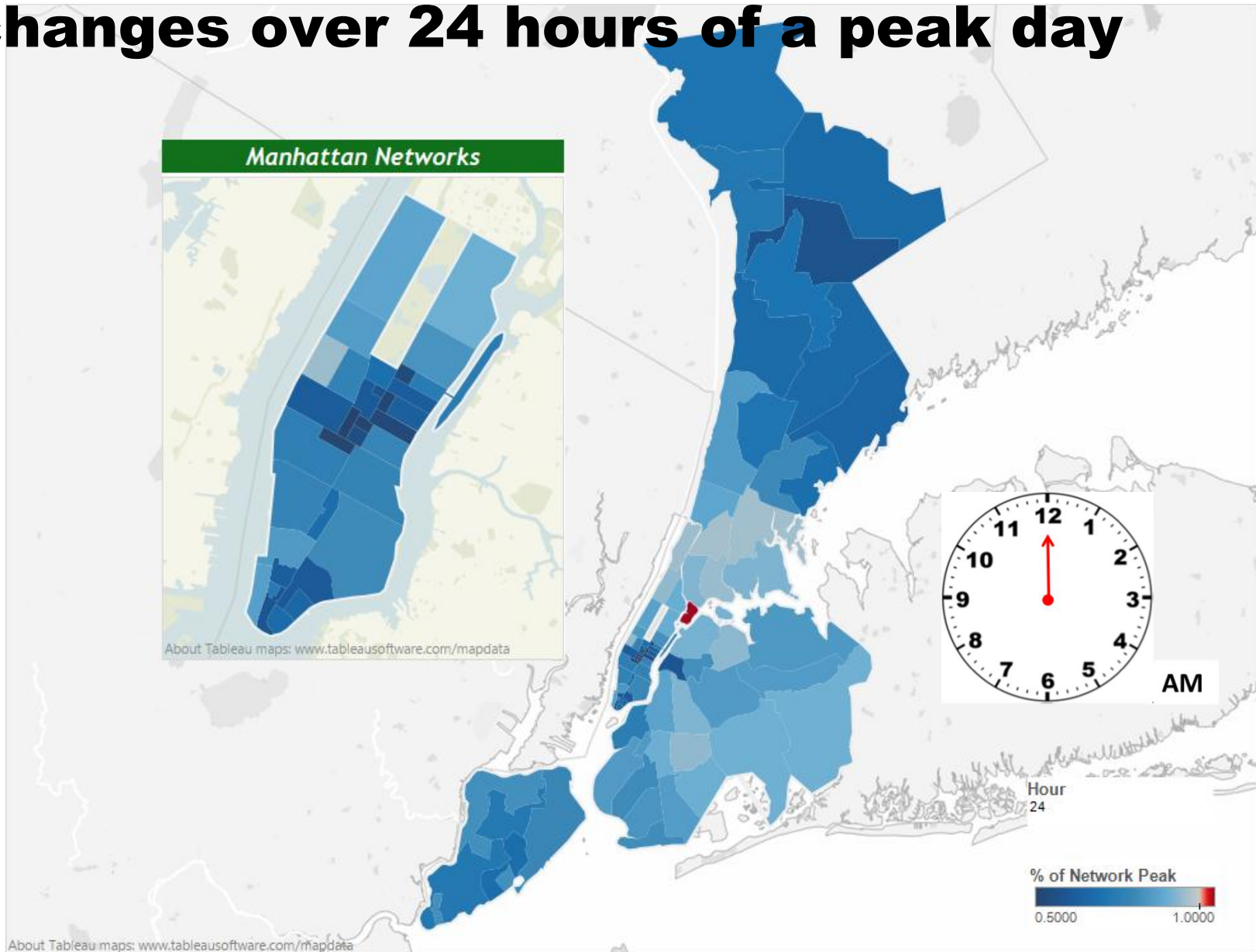
# Infrastructure build deferrals via system-wide programs and targeted DSM



In this illustrative example, accounting for DSM in the forecast defers build two years. Add'l targeted DSM pushes build two more years.



# Animated illustration of network load changes over 24 hours of a peak day





# Brooklyn Queens Demand Management (BQDM) Program Overview

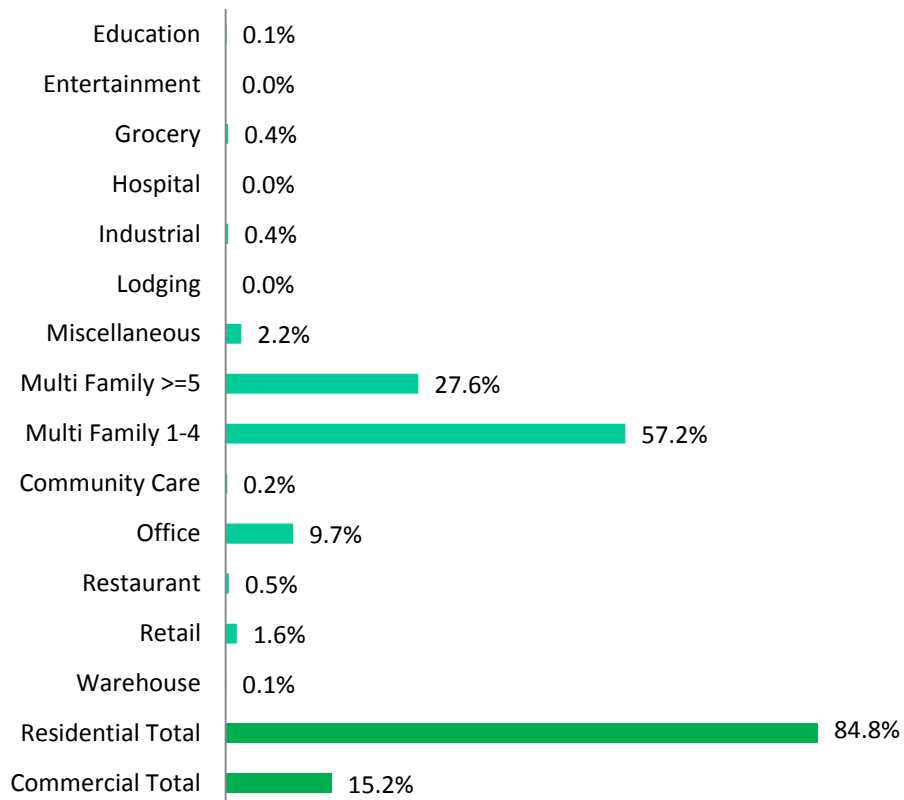
- Subtransmission feeders serving two networks in Brooklyn and one network in Queens overloaded
- Company developed multi-faceted solution to address forecasted overloads including:
  - Traditional utility solutions (e.g. load transfers)
  - Non-traditional customer and utility solutions (BQDM)
- BQDM filing on July 15, Order received on December 12
  - Commission approved \$200m
    - Customer Sided 41 MW (\$150m) and Utility Sided 11 MW (\$50m)
    - Expenditures treated as 10 year capital assets with regulated return
    - Includes a 100 basis points bonus incentive per 3 performance metrics

# BQDM Networks

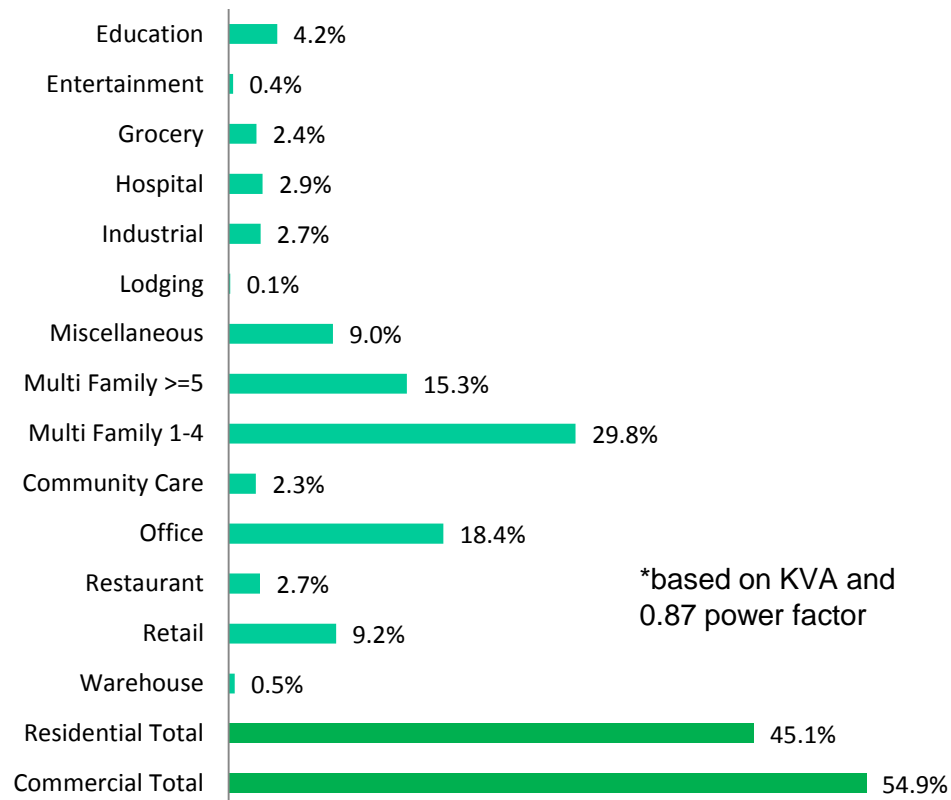


# Background: BQDM Area Demographics

## BQDM Area Account Counts



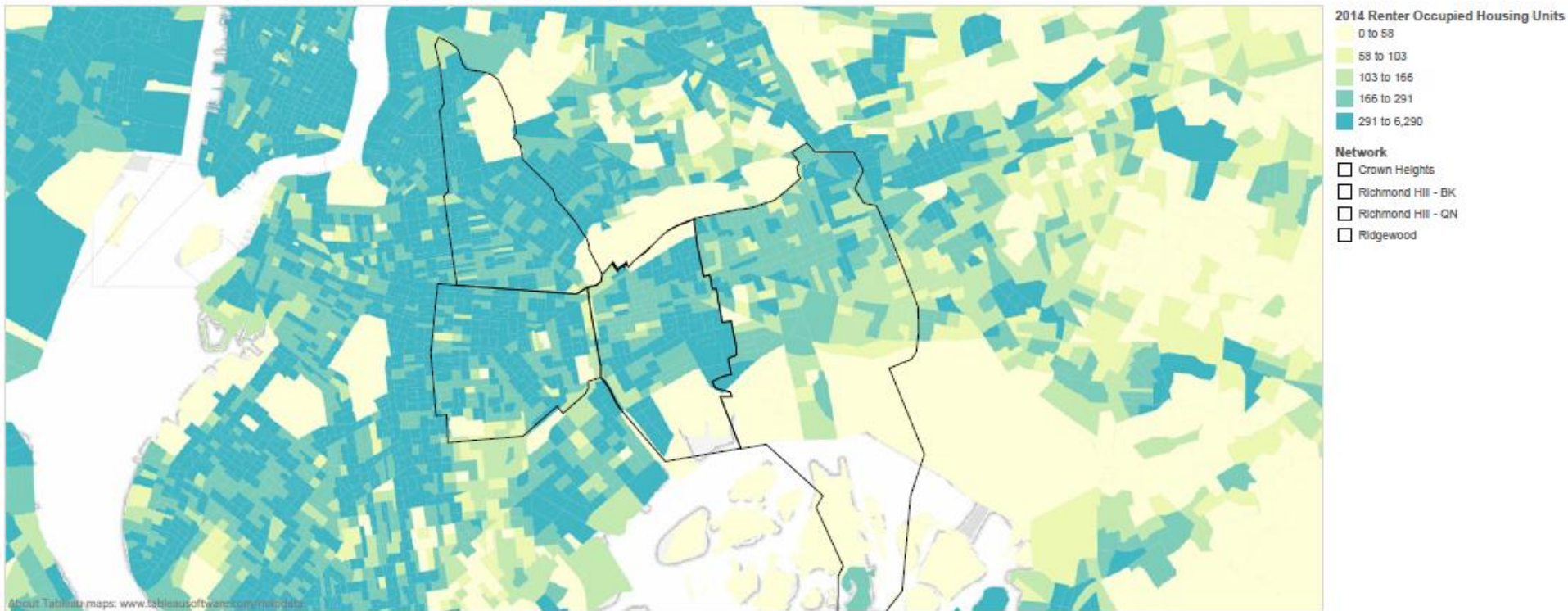
## BQDM Area High Demand\*



# Background: Brownsville Load Area Demographics

## 2014 Renter Occupied Housing Units

Brownsville Load Area Demographics - 2014 Renter Occupied Housing Units

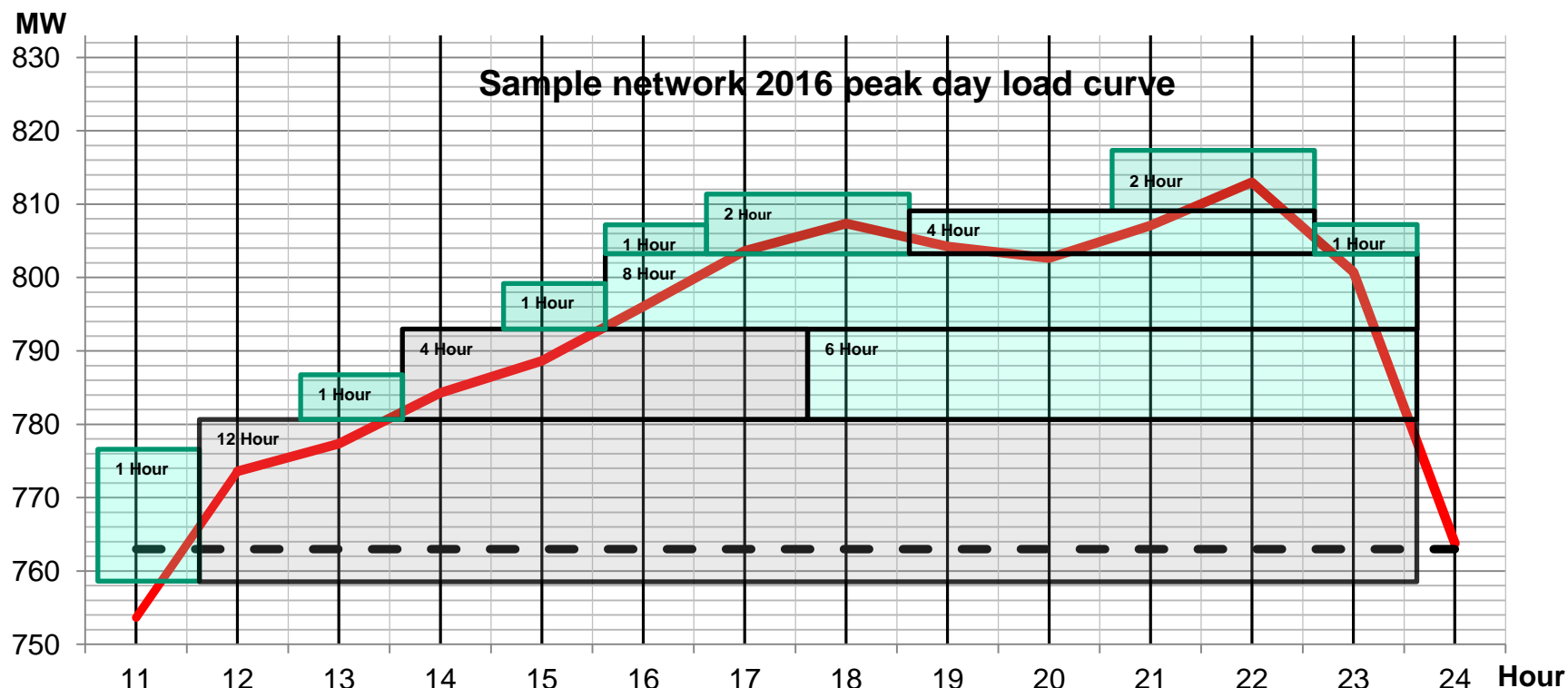


# Demand-side Resource Portfolio

## Illustrative Only

Effective MW of resources calculated based on

- Technology, customer, and load curve characteristics
- Demand reduction duration



# BQDM Outreach and Engagement

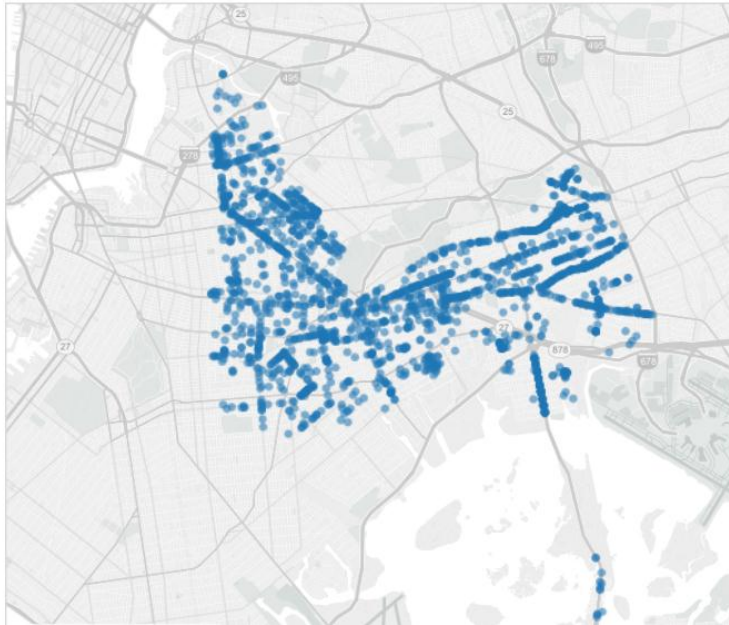
- Reached out to community
  - Community actors and boards, Borough presidents, Elected officials
  - New York City Housing Authority
  - NYC Department of Citywide Administrative Services
- Engaged third party actors
  - Broad Request for Information (RFI) for potential solutions
  - Received 78 responses providing some good solutions
  - Continued openness to new load relief opportunities
- Many conversations with customers large and small



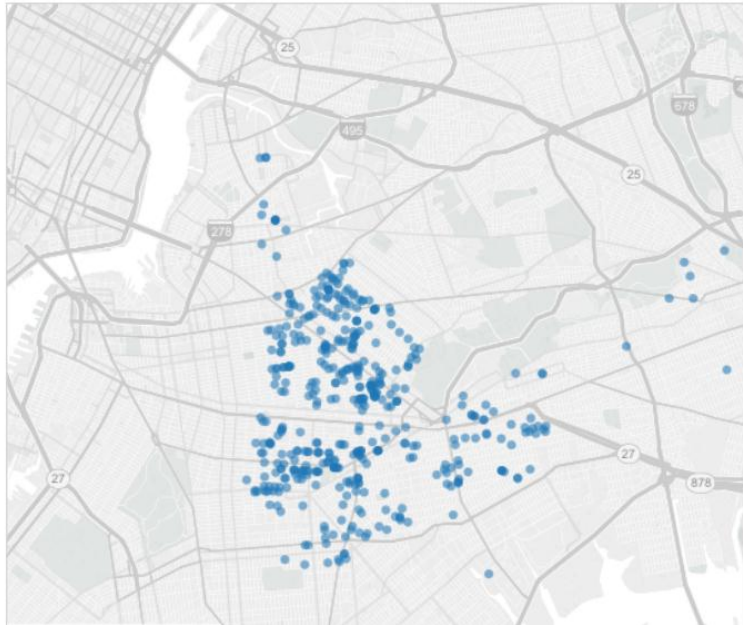
# Small Business and Multi-family Program

- Targeted existing small business and multi-family program
  - Adjusted existing 70% incentive to 100% incentive for small businesses
  - Provided incentives to landlords in addition to tenants in multi-family units
  - Reached 3,400 customers, ~12.5 MW; installed 2,300 locations, ~8.3 MW

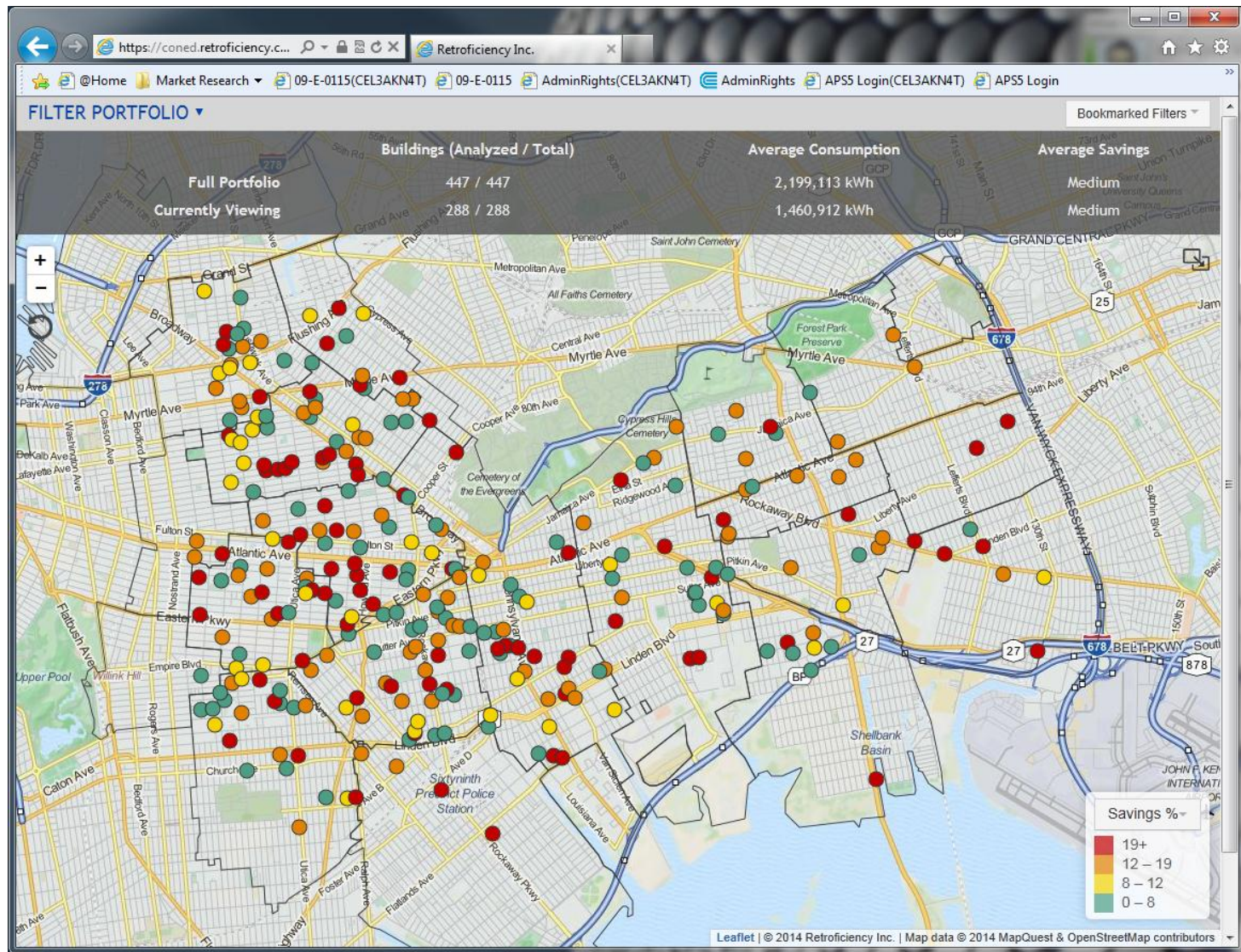
Small Business



Multifamily



# Retroficiency Screen Shots (BQDM customers)



# BQDM Next Steps

- RFI selections and purchasing
- Evaluate progress against checkpoints (on-going)
- Stakeholder engagement (on-going)
- Continue Small Business EE program targeting
- Continue Multi-family EE program targeting
- Dispatch strategy for dynamic resources