ALTERNATE M&V MODEL

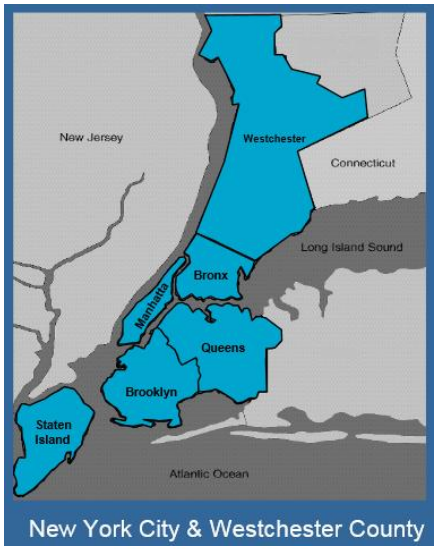
energy & resource solutions

Normalized Metered Energy Consumption Workshop

January 27, 2016

THE PROJECT DRIVER

- Demand Management Program (DMP)
  - Closing down 2 GW Indian Point nuclear plant
    - **Energy Efficiency**
      - **100 MW**
      - **2-6 pm, Jun-Sep**
- Brooklyn Queens
  - Install $200 million demand side resources in lieu of building a $1 billion substation

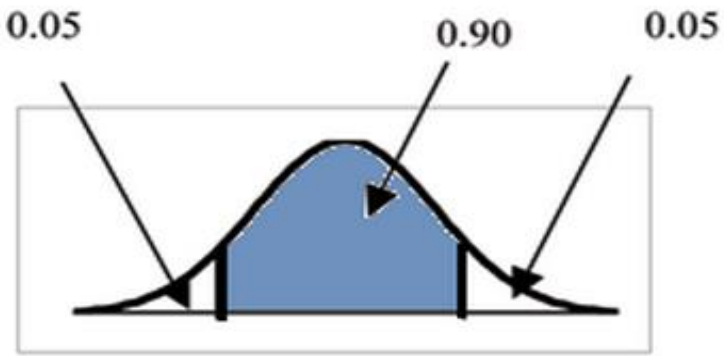


Brooklyn and Queens Zone Map

MIND THE GAP

When EE says:

- Evaluate average savings realization rate with 90/10 confidence and precision



Substation planners looking to ensure grid reliability hear:

- 10% chance of blackout?!

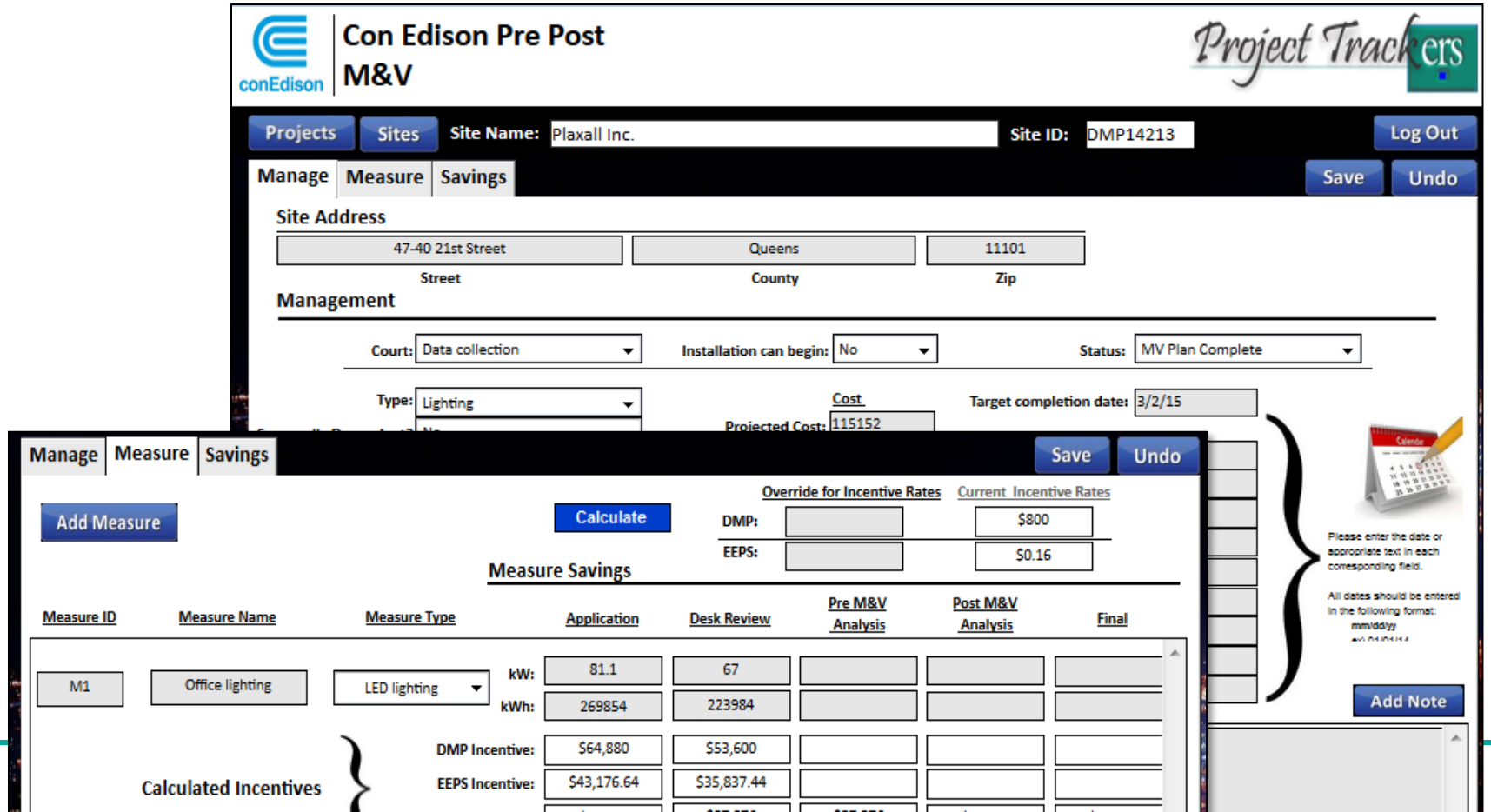
M.C.O.O.I.

DMP Large C&I Component

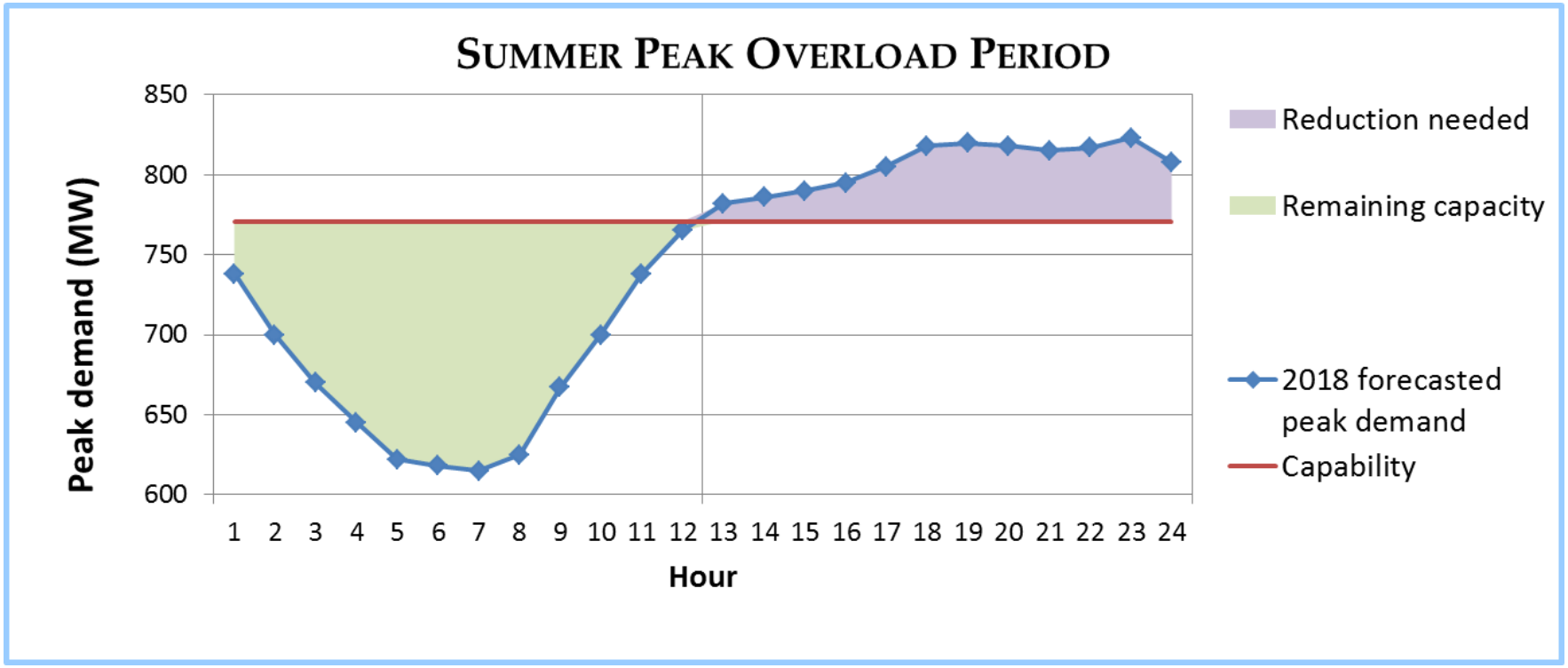
- EE component
  - About 500 C&I custom projects in the pipeline
  - Census M&V: all sites go through process although not all have pre metering (like lighting)
- Like HOPP
  - Third party implementers
  - M&V includes pre and post M&V
  - Existing conditions baseline (for demand)
- Not like HOPP
  - Measure level equipment metering, not whole building
  - Purpose of metering is peak demand impacts
    - However, effort will support traditional evaluation, although it is expected a third party independent evaluator will have to review and aggregate results
  - M&V managed by the PA

WHAT MAKES IT WORK?

- M&V process is integrated and in-step with implementation using online tools
- Standardized components
- Short turn arounds on M&V deliverables



BQDM Project Overview



- 52 MW targeted reduction from 300,000 customers
  - 12 hour overload peaking at 11PM

BQDM M&V Effort

- Different from the DMP Large C&I
  - Sample based, no site specific reporting
- Small Business – 15 MW goal
  - Mix of pre/post activities on a sample of sites
- Multifamily – 2 MW goal
  - Mix of pre/post activities on a sample of sites
  - In includes 'bag and tag'

Expanded End-Use Characterization

- Simultaneously conducting an end-use inventory and end-use metering of
  - MF: 42 common and 104 in-unit
  - SBDI: 156 sites selected by business type
  - Over 3500 meters deployed, 40,000 equipment units inventoried
- Objective
  - Representative end-use inventories (down to home media box-top counts and deli rotisserie roasters)
  - Representative peak load profiles of cooling, lighting, refrigeration, and other
  - Profiles of select other equipment
- ERS is developing a model to translate the profiles to other service areas

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