

# Identifying Areas Where Distributed Resources are a Viable Alternative to Electrical System Upgrades

**NYSERDA Project:  
Project Team:**

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**Project Period:**

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# Project Need, Objectives and Deliverables

- Need
  - Partially attributable to PSC Order 01-5
  - Also based on long-term view that DR has a role in T&D
- Objectives
  - Identify key factors that make DR a competitive alternative to T&D investments
  - Perform statewide review of New York to identify areas where factors are prominent
- Deliverables include confidential reports to utility participants and public report to NYSERDA

# Preliminary Findings

- DR solely to support utility distribution system may be difficult to justify economically
  - While pilot allows for utility to own some units, to date none have pursued this option
  - Payment from utility may be \$5-100/kW annually for 3 to 5 years
  - Difficult to pay off DR investment solely with utility payment, initial project analysis confirmed this
  - Backup DG costs \$300-500/kW, continuous (natural gas) DG can be \$450-800/kW

# Preliminary Findings (Continued)

- Siting at customer facility may be compatible with utility need
  - Hours of operation to support grid may be lengthy but overlap with some customer's operations
  - Customer can use output to displace purchases or sell output to utility
  - CHP applications could be feasible due to near baseload type operation (to support grid)
  - Customer may have options for reducing standby charges
  - Utility payment would improve customer return on investment

# DR Versus T&D: Feasibility Challenges

- DR rarely matches grid reliability (requires redundancy or other options)
- Utility compensation for revenue loss?
- Either of these can be factored into utility evaluation of bids

# Factors that Create Disincentives to Participate in Pilot

- Utility payment and T&D upgrade cost unknown
- Utilities reserve right to install DR or cancel RFPs
- Limited number of opportunities (2 - 4 RFPs per utility per year)
- Customers served by upgrade either unknown or contact information may be difficult to obtain
- “Rules of the game” are confusing (i.e. use of output, contractual terms, etc.)