NEW YORK–NEW JERSEY

CHP TECHNICAL ASSISTANCE PARTNERSHIPS

PROGRAM PROFILE

Con Edison Brooklyn–Queens Demand Management Program

Program Description

Quick Facts

Location: New York
Market Sector: All
Policy Type: Incentive program
Geography: Specific distribution network in Brooklyn and Queens boroughs
Program Start: 2014

The Brooklyn–Queens Demand Management Program (BQDM) is an innovative non-wires alternative (NWA) program enabled by New York's Reforming the Energy Vision (REV) initiative. BQDM and other NWA projects aim to incentivize energy efficiency, distributed energy resources (DERs), and other customer-side demand reduction measures, with the ultimate goal of lessening the need for utility transmission or distribution upgrades. According to the New York Public Service Commission, "While BQDM is groundbreaking from the standpoint of system planning and operations, it also demonstrates the new direction in ratemaking established here. Recognizing that the utility is displacing capital investment with operating expenses, and thus foregoing the growth of its rate base, the Commission authorized a return on total program expenditures, as well as performance incentives tied to the achievement of goals that will produce customer savings."[1]

BQDM utilized the NWA framework to defer a $1.2 billion substation upgrade in a densely populated area on the border of Brooklyn and Queens in New York City. Con Edison included incentives for combined heat and power (CHP) in the BQDM portfolio of DER measures, offering to double the NYSERDA (New York State Energy Research and Development Authority) CHP incentives for projects that provide peak demand reduction in that particular area.

Program Development

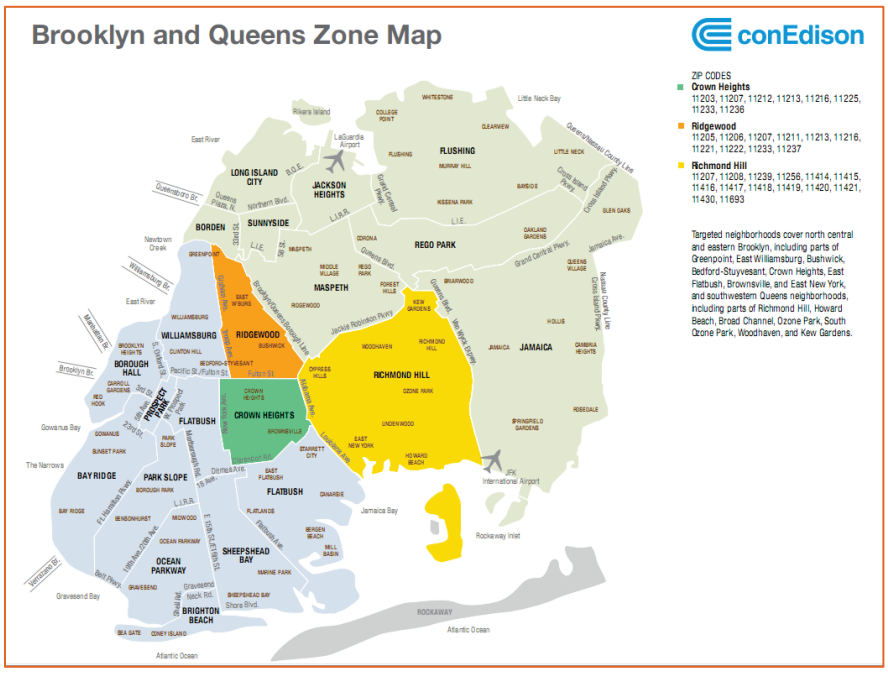
In 2014, the New York Public Service Commission approved the REV framework for utility ratemaking and revenue recovery. The REV framework is intended to change the utility business model from one of expanding infrastructure and central generation to a "platform" model, in which revenue comes from performance and is agnostic between distributed generation and large central plants. This framework encourages utilities to promote distributed generation and allows them to incorporate the benefits of DER into their business models.

One of the first tools for utilities looking to transform their business models was authorization to conduct NWA projects. Utilities were permitted to capitalize investment in CHP, as well as energy efficiency, solar, and other DERs that relieve grid constraints and avoid more costly infrastructure investment. DERs and demand-side management are often much more nimble and cost-effective than large utility grid investments. Allowing utilities to profit from investments in strategically sited CHP encourages utilities to collaborate with end users in identifying and developing CHP projects that improve utility operations and save all ratepayers significant amounts of money.

The first approved project to use the NWA framework was Con Edison's BQDM. This region on the border of Brooklyn and Queens was experiencing rapid load growth, and addressing the need through traditional means would have required a $1.2 billion substation upgrade. Con Edison agreed to test the thesis that CHP, energy efficiency, and demand-side reductions could allow Con Edison to mitigate peak load growth enough to avoid the substation upgrade.

As BQDM took shape in 2015, Con Edison consulted with the Northeast CHP Technical Assistance Partnership (TAP). From fall 2015 through March 2016, the TAP met several times with Con Edison and NYSERDA as they fashioned their targeted

[1] *Order Adopting a Ratemaking and Utility Revenue Model Policy Framework – New York Public Service Commission 2016*



The BQDM area

IMAGE COURTESY OF CONSOLIDATED EDISON, INC.

CHP incentive program, with the TAP providing education and outreach services. Recognizing that CHP can provide significant localized and time-sensitive demand reduction, Con Edison set incentives for CHP that matched those offered by NYSERDA. This doubled the potential award, offering qualifying CHP projects an incentive of $1,800 per peak-hour kilowatt of load reduction provided to the grid, up to 100 percent of the project costs.[2]

Program Outcomes

As of 2018, BQDM had contracted 52 MW of demand reductions and NWAs, including 3 MW of CHP.[3] There are 16 CHP installations ranging from 70 kW to 1.2 MW; they comprise facilities in the multifamily housing, affordable housing, hospital, manufacturing, and commercial sectors. This includes DO & CO New York Catering, a commercial catering facility that serves JFK Airport, and the Remeeder Houses, which consist of 260 low-income rental units across four buildings.

In 2019 and beyond, Con Edison is continuing CHP incentives, providing the full maximum of $1,800 per kilowatt even after NYSERDA incentives come to an end. Con Edison is seeking further demand reduction in BQDM and expanding to its second NWA area, which contains two networks adjacent to the BQDM area. A fundamental outcome of this policy has been demonstrated success in improving the utility grid's capacity utilization through acquisition of targeted cost-effective CHP, DERs, and customer-side demand reduction measures.

Lessons To Share

BQDM represents a compelling case study in jointly advantageous collaboration and cooperation between the utility and CHP market stakeholders and end users. The program provides hard evidence that valuing and compensating CHP's locational and time-based grid benefits results in greater grid productivity, improved operations, and lower costs. States across the nation are transitioning toward a much more distributed energy system. This program provides empirical evidence to substantiate the benefits of investing in CHP and other forms of DER as dynamic assets serving the grid. Offering utilities and qualifying end-use CHP customers the incentives to site and operate in the most valuable grid locations leads to more nimble, sustainable, and cost-effective energy investments.

- CHP systems that provide peak reduction in constrained locations provide substantial value to utilities.
- Behind-the-meter CHP systems are critical components of a portfolio of DER measures that can offset large investments in grid infrastructure, benefit the utility, improve grid performance, and lower costs for all customers.
- New incentive structures, such as the NWA approach, can lead end users to make DER investments that operate at the right time and grid locations that maximize benefits for all parties.

For More Information

U.S. DOE NEW YORK–NEW JERSEY CHP TECHNICAL ASSISTANCE PARTNERSHIP (CHP TAP)
www.nynjchptap.org

Date produced: June 2019

[2] *Brooklyn Queens Demand Management Program Implementation and Outreach plan January 29, 2018, p. 22*
[3] *BQDM Quarterly Expenditures & Program Report Q4 – 2018 – Con Edison, 2019*