Program Description

The Public Service Enterprise Group (PSEG) Long Island (LI) Distributed Generation (DG) Rebate Program offers post-installation rebates to qualifying combined heat and power (CHP) systems. Reimbursement can be up to $2 million or 70% of project cost (whichever is less). In 2016, PSEG-LI created the DG Rebate under its Custom Commercial Efficiency Program. There are no size limits for CHP, but systems over 50 kW must be black-start capable, and all systems must meet an annual average CHP efficiency of 60% or above. Efficiency is verified after installation, prior to the award, and program users must submit their monthly performance data to PSEG-LI for 24 months.

Because PSEG-LI customers do not pay the system benefits charge that funds New York State Energy Research and Development Authority (NYSERDA) CHP programs, they are not eligible for NYSERDA CHP incentives. With the introduction of the DG Rebate Program, end users on Long Island are now able to offset some of their initial capital cost for investment in high-efficiency, resilient CHP systems.

Program Development

In 2016, PSEG-LI added the DG Rebate Program to its Custom and Whole Building Energy Efficiency portfolio. The utility recognized the efficiency benefits of CHP and sought to expand its adoption in the PSEG-LI service territory to meet overall efficiency goals. Because of the late 2016 introduction of the program and the requirement of feasibility studies for applications, the first projects were not approved until 2017.

In 2017, the program incorporated several updates. The minimum project size was set to 50 kW, repowered systems could be considered only on a case-by-case basis, and the incentives for most system sizes were reduced. In 2018, CHP project applications increased significantly, so much so that the program budget had to be re-evaluated and raised.

For 2019, PSEG-LI expanded the program again to allow CHP systems under 50 kW. To promote resilience, the utility is encouraging customers to deploy systems that are “black-start capable”—able to start and run during a grid outage to continue providing electricity and heat to the site. A CHP system under 50 kW with black-start capability can now receive the full rebate level, and those without the capability will receive a rebate at two-thirds of the full amount.

Quick Facts

LOCATION: Long Island, New York
MARKET SECTOR: Commercial
Program Type: Rebate
Geography: PSEG-LI territory only
Program Start: 2016

Sachem East High School, which has 375 kW of the Sachem School District CHP project total of 1 MW
SOURCE: SACHEM SCHOOL DISTRICT

1 Sachem School District CHP Case Study: https://www.ecgengineers.com/projects/sachem-school-district-ny-phase-iii/
Program Requirements

- Rebates are for new systems. Replacements for existing systems that have not run in over 12 months may also qualify, subject to a case-by-case review.
- Systems must use natural gas, propane, or biogas as fuel. Other fuels must be approved by PSEG-LI on a case-by-case basis.
- Systems over 50 kW must have black-start capability. Systems under 50 kW without black-start capability will receive a reduced incentive.
- The total annual CHP system efficiency must be 60% higher heating value (HHV).
- Qualifying systems must have final interconnection approval from PSEG-LI.
- To ensure good multi-year performance, systems must have, at minimum, a five-year warranty or service agreement.
- The fuel supplier must provide a preliminary determination that the system will have sufficient gas or fuel supply for five years.
- NOx emissions must be below 1.6 lbs/MWh at all times of operation.
- Customers must provide two years of monthly CHP system performance data to PSEG-LI once the system has been commissioned. PSEG-LI will also perform measurement and verification of the system once.

Program Outcomes

Rebate Levels

- Under 50 kW, without black-start: $960/kW
- Up to 100 kW, with black-start: $1,440/kW
- 100 kW to 1200 kW: $(1,480 – half of system size)/kw
- 1,200 kW to 3,000 kW: $1.2 million flat rebate
- Over 3 MW: $400/kW
- Absorption chillers: $750/ton

The 2019 DG Rebate Program provides incentives for efficient CHP systems across all sizes.\(^3\) Because PSEG-LI does not pay the system benefits charge used to fund NYSERDA, its CHP program is independent of NYSERDA’s CHP program.

The CHP projects that were approved through 2017 will provide PSEG-LI with 11 GWh of energy savings.\(^4\) With the increased program budget in 2018 and expanded system eligibility in 2019, PSEG-LI anticipates even more savings from CHP projects in the future.

Lessons To Share

- CHP can provide energy efficiency that is beneficial to both consumers and utilities.
- CHP project development takes time, so utilities must plan and implement programs several years before demand reduction or other grid services will be needed.
- Proper categorization of CHP energy efficiency benefits is paramount to valuing these benefits to utilities. The other New York utilities classify CHP as providing source energy efficiency, not end-use energy efficiency. This prevents the other utilities from incorporating CHP incentives in their energy efficiency portfolios.

For More Information

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More CHP Policy and Program Profiles:
betterbuildingsinitiative.energy.gov/chp

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\(^3\) PSEG-LI Distributed Generation Rebates:
https://www.psegliny.com/businessandcontractorservices/businessandcommercialsavings/businessandcommercialrebates

\(^4\) Energy Efficiency and Renewable Energy Portfolios: Volume II – Program Guidance Document:
https://www.psegliny.com/aboutpseglongisland/legalandregulatory/-/media/D0B169FF6D7A494CAD80B0079B7D78A4.ashx