



CHP
TECHNICAL ASSISTANCE
PARTNERSHIPS

PROGRAM PROFILE

New Jersey Combined Heat and Power Grant Program

Program Description

The New Jersey Combined Heat and Power (CHP) program offers financial incentives for the installation of CHP projects that meet the program goals. The program is housed in the Commercial & Industrial, Local Government and Multifamily section of the New Jersey Board of Public Utilities' (BPU's) Office of Clean Energy program. The BPU's Office of Clean Energy supports CHP deployment to increase energy efficiency, reduce emissions, and reduce demand on the electric power grid.

To qualify, the applicant must be a New Jersey-based commercial/industrial customer paying into the Societal Benefits Fund. The CHP program is open to all CHP technologies that recover heat for useful purposes, including internal combustion engines, combustion turbines, microturbines, and fuel cells, as well as waste-heat-to-power (WHP) systems that produce power from heat or mechanical energy recovered from existing systems. All technologies receive the same incentive amount, and there is no cap on eligible system size. Natural gas, hydrogen, biogas, and mixed-fuel (e.g., natural gas and biogas) CHP equipment installed on the customer side of the utility meter is eligible for incentives. CHP or WHP projects must achieve an annual system efficiency of at least 60% (higher heating value), based on total energy input and total utilized energy output. Mechanical energy may be included in the efficiency evaluation. Equipment must be new, commercially available, permanently installed, and sized to meet all or a portion of the facility load but not to exceed 100% of the most recent historical consumption or peak demand.

Program Development



**A 300 kW Tecogen CHP system installed at the
Westin Jersey City Newport**

COURTESY OF TECOGEN, INC.

The CHP program has been running since 2005, operated by various program managers who subcontract to the BPU. Through this period, the program has been updated and improved, although the major guidelines regarding applicability and qualifications remained the same. Most recently, 2019 program changes incorporate a new 10% incentive bonus for critical facilities that install a black-start CHP system with islanding capability. The rules also move to a new CHP efficiency requirement of 60% higher heating value from 65% lower heating value to bring the CHP program metrics into alignment with other BPU energy efficiency program metrics. Other program details include:

- Incentives based on a tiered capital grant amount per kilowatt, depending on the CHP system generator size.
- An incentive cap of the lesser of 30% of total project cost or \$2 million for projects up to 1 MW and \$3 million for projects over 1 MW. The percentage of the total cost cap is raised to 40% for projects under 1 MW that incorporate cooling.

Incentive Amounts and Caps by System Size

<i>System Size</i>	<i>Incentive Amount</i>	<i>Percentage of Total Cost Cap per Project</i>	<i>Maximum Total Incentive Amount per Project</i>
≤500 kW	\$2,000 per kW	30%–40%	\$2 million
>500 kW – 1 MW	\$1,000 per kW	30%–40%	\$2 million
>1 MW – 3 MW	\$550 per kW	30%	\$3 million
>3 MW	\$350 per kW	30%	\$3 million

Source: New Jersey BPU Clean Energy Program: Combined Heat and Power

Stakeholders and Partners

The New Jersey CHP Grant Program is currently operated by TRC Companies Inc., which is subcontracted by the BPU to manage various energy efficiency programs. The BPU’s Office of Clean Energy oversees the program and underwrites the grants and operating costs with money collected by each utility through the Societal Benefits Charge, which is assessed on all ratepayers to support clean energy programs. The Office of Clean Energy holds stakeholder meetings throughout the year to review program progress and solicit suggestions or advertise changes to the program.

Summary of Program Results and Outcomes

Since 2005, the New Jersey CHP Grant Program has approved over 100 applications representing over 60 MW of CHP. Applications have been approved in all utility franchise areas throughout the state; applicants include universities, hospitals, industry, schools, retail facilities, and multifamily dwellings. Approved technologies to date include reciprocating engines, combustion turbines, microturbines, and fuel cells. While most applications have been for systems fueled by natural gas, a small number of biogas systems have also been approved. The CHP program budget is appropriated for each program year and subject to change during budget reviews.

Lessons to Share

The New Jersey CHP Grant Program has been in effect for over 10 years and, with improvements over the years, provides a template structure for other CHP programs. Basic components are as follows:

- Provides approximately 30% of the average CHP system cost, including heat recovery equipment and installation.
- Offers tiered grant amounts based on size, with grant amounts being additive as sizes increase.
- Provides a 10% bonus for adding resilience.
- Provides an increase in the grant cap amount for including cooling in project.
- Makes payments in installments, with 30% paid upon proof of equipment purchase, 50% paid upon installation and successful operation, and the final 20% paid upon acceptance of 12 months of operating data demonstrating performance meets the program goals.

Resources:

For more information, including current incentive rates, eligibility, and a program guide, visit:
<http://www.njcleanenergy.com/commercial-industrial/programs/combined-heat-power/combined-heat-power>.

For More Information

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

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Date produced: November 2019