



# New York CHP Catalog



## Program Description

The New York State Energy Research and Development Authority (NYERDA) developed the CHP Catalog Program (PON 2568) for off-the-shelf, standardized packaged systems with multi-year warranties and a single point of accountability: the system vendor. The program, which included a catalog of NYERDA-approved, pre-engineered CHP systems with prescribed incentives, closed in 2019 after successfully delivering all program funds and contributing to CHP market transformation efforts.

The Catalog provides end users with lists of pre-approved vendors and the standard system offerings. This approach helps reduce buyer risk by affirming quality of both the vendor and the systems. It coaches end users through the entire process of “Learner” (Is CHP right for me?), “Shopper” (How do I find competent service providers?), and “Buyer” (How do I select among bids, do I buy or lease, and what are the incentives?).

Manufacturing CHP systems as replicable packages reduces design errors relative to designing systems from scratch. NYERDA developed sizing guidelines for common building types to mitigate against incorrect sizing, system

underperformance, or budget overages due to errors and corrections. Standardized packaged systems reduce uncertainty for permitting agencies and authorities, lowering soft costs and speeding project timelines. NYERDA required each CHP vendor to provide system data at three reference ambient temperatures (0°F, 59°F, and 95°F) to make systems cross-comparable between manufacturers and facilitate informed customer choice across vendors.

NYERDA also required Catalog vendors to provide a minimum five-year “bumper-to-bumper” warranty and maintenance package. The CHP vendor, serving as the “integrator” of all the system components, assumes responsibility for fixing any defect, regardless of its root cause. As a result, customers have one point of contact for settling any problem, whether issues are related to work or parts supplied by a subcontractor, vendor, or installer.

To complement the Catalog, NYERDA invested in an aggressive program of education and outreach and provided technical assistance via the DOE CHP Technical Assistance Partnership (TAP) and a private service provider. Activities included:

- Expos held in all five boroughs of New York City and several upstate New York locations
- CHP “Performance Data” webpage<sup>1</sup>
- Sector-targeted “Intro to CHP Events,” including breakfast events and site tours
- Architect and engineer training (continuing education credits)

The Catalog grew to 26 approved vendors offering 253 packaged CHP systems, transforming CHP to a standardized product in the market and driving significant growth from 2012–2019. NYERDA committed \$100 million in incentive funds through the CHP Catalog Program, with a substantial budget increase in 2018 due to its success. The program was successful in lowering average system costs over time, shrinking the time from project initiation to completion, and significantly increasing the number of realized projects over the course of the program.

### U.S. Department of Energy CHP eCatalog

Though the NYERDA CHP Catalog Program is no longer actively incentivizing new projects, it has become the basis for DOE’s Packaged Combined Heat and Power Catalog (eCatalog). The purpose is to spread the CHP market transformation achieved in New York to the rest of the nation.

For more information about DOE’s eCatalog for CHP, visit: <https://chp.ecatalog.ornl.gov/>.

<sup>1</sup> NYERDA DER Performance Data <https://der.nyserda.ny.gov/data/performance/>

## Program Development

The CHP Catalog Program was the culmination of a multi-stage evolution of state CHP incentive support. Stage 1 (2000–2008) was a demonstration program (via a request for proposals [RFP]) testing a variety of approaches in a not-yet-mature market. With the success of the RFP, NYSERDA transitioned to a performance-based incentive program (2007–2013). Systems that met operational efficiency requirements would receive up to \$900/kW in incentives. The program required data monitoring of project operation by NYSERDA for two years, with meters providing data to NYSERDA’s publicly available website.

In 2013, NYSERDA revamped the CHP program completely, shifting focus from government subsidies to establishing the conditions for a self-sustaining market transformation. In addition to providing incentives, NYSERDA sought ways for the CHP market to reduce costs and timelines. A key objective for NYSERDA was to instill customer confidence in CHP by creating more informed end users and simultaneously developing a cadre of system providers who were able to consistently deliver quality outcomes. Program incentive levels tapered over time, on a regular schedule known to the vendors, giving them time to adjust and ultimately create a successful business model without government support.

The Catalog provides a one-stop shop for potential end users, who can compare systems across the market. It instills confidence that all products in the catalog will perform as claimed and intended. Featuring pre-packaged CHP systems enables cost reduction through replicability. As more of the same systems are manufactured and installed, the rate of errors in system design or installation will decrease. The Catalog will also reduce the soft costs of permitting as permitting agencies become familiar with stock CHP systems. NYSERDA also targeted consumer confidence by having each CHP system vendor include a mandatory five-year guarantee and service contract.

## Program Outcomes through 2016

NYSERDA-backed CHP projects by size	NYSERDA-backed CHP projects by market sector
6 projects sized at 35 kW	6 projects at Assisted Living/Nursing Home
86 projects sized 36 kW to 199 kW	5 projects at Hospitals
42 projects sized 200 kW to 599 kW	9 projects at Hotels
12 projects sized 600 kW to 3,000 kW	6 projects at Industry
4 projects larger than 3,000 kW (prior to change in program rules)	19 projects at Mixed Use
	93 projects at Multifamily Residential
	12 projects in other sectors
<b>Total: 70,000 kW</b>	<b>Total: 150</b>

Source: NYSERDA’s CHP Program and NY Prize Update, May 23, 2017

The NYSERDA CHP Catalog Program successfully facilitated development of a mature market based on comparison shopping from more informed buyers, rather than a customized design-to-site process for each individual project. Over the course of the program, CHP system costs were reduced by 25% while incentives to vendors were being progressively pared back. The time to completion of CHP projects fell by 30%. This is simultaneous with the CHP market’s experiencing rapid growth, with 150 projects and 70,000 kW awarded between 2013 and 2016. System installations more than doubled from 2014 to 2017, with an even greater trajectory of growth through the end of the program in early 2019.

## For More Information

**U.S. DOE NEW YORK–NEW JERSEY CHP  
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[www.nynjchptap.org](http://www.nynjchptap.org)

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