

NYSERDA INCENTIVE PROGRAMS

Heat Recovery Project Development

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With the introduction of the Inflation Reduction Act (IRA) of 2022, there has been an increased focus on large scale energy efficiency projects. Local utilities, including Con Edison and NYSERDA have also initiated some very generous incentive programs. In this article, we discuss NYSERDA's new Heat Recovery Project Development and show how NYC commercial and multifamily buildings may benefit from it.

[\(For previous articles, click here\).](#)

There are a wide variety of energy efficiency measures that may qualify for NYSERDA funding under the Heat Recovery Project Development (HRPD) program. NYSERDA provides 4 main types of measures:

- Waste Heat Source
- Heat Transfer Technology
- Transfer Medium
- Heat Sink

Essentially, the program is designed to include any kind of measure that reuses waste heat before it leaves the building.

WHAT KIND OF PROJECTS DOES THAT INCLUDE?

The program is designed very broadly, to allow many types of projects to qualify. Here are a few examples that may appeal to a wide range of buildings:

Energy Recovery Ventilation (ERV) – Use the exhaust airstream to preheat/precool outdoor air ventilation. Applicable to a wide range of buildings.

Refrigeration Heat Recovery – Walk in commercial refrigerators can offer a consistent 24/7 heat rejection source that can be recovered to serve as a heat source for water source heat pumps (WSHP) supporting domestic hot water loads in the same kitchen and/or the rest of the building.

VRF with Heat Recovery – A versatile and highly efficient HVAC system that tries to balance heating and cooling loads while minimizing the use of compressor energy. Applicable to single floor HVAC systems with larger floorplates or to spaces that have year-round cooling needs (data centers, commercial kitchens, etc.).

Steam Condensate Waste Heat Recovery – Use waste condensate to preheat DHW or space heating systems. Applicable to many buildings using Con Ed steam.

Thermal Storage – A broad category of strategies that use ice storage, phase change material (PCM) and other methods to generate heating or cooling energy to be stored and discharged at a later time.

WHAT DOES THE INCENTIVE COVER?

Typically, Con Ed incentives target construction projects, while NYSERDA incentives target preliminary and schematic studies. The HRPD is broadly designed and offers 2 types of incentives:

Category 1: Heat Recovery Opportunity Assessment

NYSERDA is offering a 75% cost share (up to \$40,000) to subsidize an initial analysis and report to determine if a project is feasible and financially viable. Energy modeling is common for this type of study ([click here for more details](#))

Category 2: Heat Recovery Project Design

Once the initial study is done and the Owner decides to proceed with the engineering design, NYSERDA will fund 75%, up to \$80,000 of the cost of drawings, from schematic all the way to construction documents.

A project must be submitted via an approved NYSERDA Flextech Provider.

Sample Project #1

A 700,000 SF commercial building is looking to reduce fossil fuel consumption by eliminating Con Ed steam space heating and replace it with a combination of ground and air source heat pumps. They are considering installing phase change material tanks to store heat that is produced when the heating plant is not fully required for immediate space heating loads. This would allow the building to reduce the proposed heat pump plant size. An energy modeling study can determine the optimal combination of heat pumps and PCM tanks. NYSERDA would fund up to \$40,000 of the study fees under category 1.

Sample Project #2

An 80,000 SF retail store operates an HVAC system independent of the upper floors of the building. There is a band of louvers along the storefront for them to use for air source AC units. Together with their MEP engineers, they have opted for an air source VRF system to serve the space. An ERV will be included in order to pre-treat the ventilation loads, as well as heat recovery capability, due to the large floor plate and year-round cooling needs. Given the complexity of the system, the design fees to produce design drawings may be higher than a traditional fit out. Under category #2, NYSERDA would fund up to \$80,000 of the fees to pay for detailed schematic drawings, all the way through 100% construction documents.

DOES YOUR BUILDING QUALIFY?

This program is open for almost any commercial, institutional or multifamily building that pays into the System Benefits Charge (SBC) on their utility bill.

As a NYSERDA Flextech Provider, RDE is qualified and ready to help on both of these tasks. We are the energy engineering and sustainability group within RDA, one of the largest and best-known MEP Consulting Engineering Firms in NYC. Please reach out to find out how we can help you secure funding to prepare your building for the future.



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