

Heat Recovery Program

Overview



\$12 MILLION in funding available

Eligibility

- All existing buildings in NYS that contribute to the System Benefit Charge including Multifamily, Commercial, Industrial, and Institutional Buildings
- Project Teams must include a building owner and an engineering consultant

Ready to get started?

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Heat-Recovery](https://nyscrda.ny.gov/Heat-Recovery)



Harnessing wasted heat to fuel building decarbonization

Recovering wasted heat energy that building owners have already paid for – and repurposing it directly at point of use or storing it for later – represents a promising approach to large building decarbonization. Buildings account for around one-third of New York’s greenhouse gas emissions and waste heat through processes such as ventilation, cooling, and wastewater systems.

Heat recovery recycles wasted thermal energy to reduce a building’s energy consumption and carbon footprint. By capturing and repurposing rejected energy, heat recovery solutions help building owners reduce operating costs and lower carbon emissions.

NYSERDA aims to advance solutions that can significantly improve thermal efficiency and support planning activities to accelerate a pipeline of successful heat recovery retrofits.

What is Heat Recovery?

The process by which a building owner, manager or consultant identifies rejected thermal energy and develops a project to capture it and redirect it or store it for use within the building or elsewhere. Examples include energy recovery ventilators, condenser water heat recovery, wastewater heat pumps, and thermal storage.

For Building Owners

Heat Recovery Project Development

Provides up to 75% cost-share and up to 100% for projects serving affordable housing for two activities:

1

OPPORTUNITY ASSESSMENT

- Document current operations and define heat recovery opportunity
- Up to \$40,000

2

PROJECT DESIGN

- Develop schematic designs for technically and economically viable heat recovery projects
- Up to \$80,000



NYSERDA

For Solution Providers

Heat Recovery Solutions

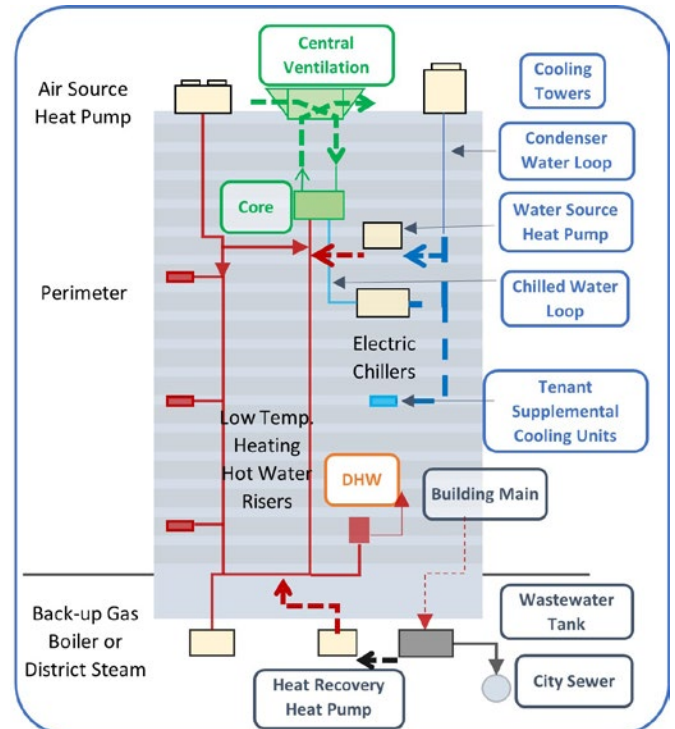
Promotes the adoption of heat recovery products that are innovative and efficient solutions for existing commercial, institutional, industrial, and/or multifamily buildings. Working with NYSERDA will help qualified solution providers access the New York market, receive support for technology transfer, and participate in exchanges with key market stakeholders.

Applicants will be subject to:

- 1) NYSERDA's technical review to validate their efficacy and that their development has reached a Technology Readiness Level of 6 or greater and
- 2) a market acceptance review by a scoring committee of owners and operators of the targeted building types, practicing engineers, architects and industry experts.

Common Heat Recovery Opportunities

- **Buildings with multiple use-types** are great candidates for heat recovery, with simultaneous heating and cooling loads. E.g. a first floor supermarket with a year-long cooling load can provide rejected heat for Domestic Hot Water (DHW) production for the apartments above.
- **Buildings with 100% outdoor air ventilation** have a huge heat recovery opportunity using exhaust ventilation to temper incoming fresh air. The fresh air and exhaust ventilation infrastructure must be close together for this option. Heat Recovery Ventilators (HRV) or Energy Recovery Ventilators (ERV) are great additions to ventilation systems.
- **Buildings on district steam** should consider steam return condensate heat recovery to, for example, pre-heat DHW (in New York City, steam return condensate must be quenched before being released into the sewer line).
- **Buildings with fossil fuel burning equipment can consider heat recovery from flue gases** (a condensing boiler already does that).
- **Commercial buildings with year-long cooling loads for data centers or commercial office space** can reuse that heat for other purposes.
- **Residential Buildings**
 - Heat recovery for DHW production or preheating DHW are great savings opportunities in residential buildings, especially if the building has a **linked space heating and DHW boiler**. This existing condition should yield higher savings since the boiler would not need to be run during the summer just for DHW.
 - Wastewater heat recovery from the building sewage line for residential buildings (before it is dumped into the city main sewer) is another great heat recovery opportunity using heat pump technology. **Space constraints might be of concern to access the sewage lines** and install the sewage storage tank that is usually required.



To learn more visit nysERDA.ny.gov/Heat-Recovery or email heatrecovery@nysERDA.ny.gov.