Energy Management and Electrification Platform for Radiator Heated Buildings
This is hugely wasteful, expensive and uncomfortable.

Radiator heating is a 19th Century technology

Radiator heated buildings cater to the coldest spaces to meet statutory heating guidelines.

This dramatically overheats most of the building, leaving many residents miserably hot.

Residents are forced to open their windows to let in cold air and reduce room temperatures.
At Radiator Labs, we’re bringing radiator heat into the 21st century.

Our proprietary technology, The Cozy, is a modular insulated radiator cover that distributes heat with maximum efficiency to prevent overheating and waste.

The Cozy is simple to install and can integrate with any radiator. It does not interfere with the building’s plumbing and takes up no extra space!

How the technology works

The Cozy is an insulating enclosure that is installed over existing radiators and traps warm air inside.

When the system senses that a room needs heat, a small fan turns on to circulate warm air through the room.

When the desired temperature is reached, the fan turns off to trap heat and prevent overheating.

The result: comfortable rooms, cost savings, and reduced building emissions.
The Cozy is a solution for all types of radiators.
Our platform provides control & flexibility for building managers and tenants

01. The Cozy™
A proprietary insulated radiator cover that traps excess warm air inside

02. App
Radiator Labs finally enables tenants in radiator heated buildings to control their apartment temperature with the help of an App or manual buttons on The Cozy.

03. Analytics
Building managers get real-time data with proactive alerts and can control how heat is released into each apartment.
Our app and analytics dashboard

App for residents

Analytics dashboard for buildings
Radiator Labs provides unprecedented comfort improvements

Installing the Radiator Labs’ platform in steam buildings widens period for which indoor air temperature fall within the “comfortable” band

Radiator Labs provides room by room temperature control to individual residents for the first time in the history of radiator heated buildings
Customer results are unprecedented

25%
Average fuel savings
(independently verified)*
Smart thermostats, like Nest, get <10%

85%
Fewer maintenance calls
Lowers building operating costs and increases tenant satisfaction

95%
Fewer heating complaints
Resulting in reduced tenant turnover

*NYSERDA Report Number 18-12, May 2018, “A Focused Demonstration Project: The “Cozy” by Radiator Labs”
Building owners and customers love the Radiator Labs’ platform

"The Radiator Labs system makes tenants comfortable, saves energy, and helps with the maintenance of the building. We’ve been looking for something like this for a long time."
-- Jared Rodriguez
Realty Operations Group

"It was amazing. It was the best winter we’d ever had... and [now] we can advertise we have this new technology that other co-ops don’t.”
-- Timo Lipping
Clinton Hill Coop

Select Customers

Awards:
Regulators have validated the Radiator Labs system


- One of two energy efficiency measures for steam heat buildings recognized by the NY TRM*
- Largest savings solution in the 2019 TRM for HVAC control in the residential sector.

NYSERDA Independent Evaluation

- NYSERDA** validated 25.5% average billing savings through use of The Cozy
- Savings are 3x-4x of next best alternative for steam-heated buildings

On track to complete M&V for installations in ConEd & National Grid territories to be listed as a prescriptive energy efficiency measure

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* The Technical Resource Manual (TRM) is a standardized, fair and transparent approach to measure energy savings across New York State's energy efficiency programs.
**NYSERDA Report Number 18-12, May 2018, “A Focused Demonstration Project: The “Cozy” by Radiator Labs”
Local Law 97 Compliance Pathway

The Radiator Labs System is a qualified technology for meeting Local Law 97 emissions requirements

§ 28-321.2.2 Prescriptive energy conservation measures. By December 31, 2024, the owner of a covered building shall ensure that the following energy conservation measures have been implemented where applicable:
1. Adjusting temperature set points for heat and hot water to reflect appropriate space occupancy and facility requirements;
2. Repairing all heating system leaks;
3. Maintaining the heating system, including but not limited to ensuring that system component parts are clean and in good operating condition;
4. Installing individual temperature controls or insulated radiator enclosures with temperature controls on all radiators;
5. Insulating all pipes for heating and/or hot water;
6. Insulating the steam system condensate tank or water tank;
7. Installing indoor and outdoor heating system sensors and boiler controls to allow for proper set-points;
8. Replacing or repairing all steam traps such that all are in working order;
9. Installing or upgrading steam system master venting at the ends of mains, large horizontal pipes, and tops of risers, vertical pipes branching off a main;
10. Upgrading lighting to comply with the standards for new systems set forth in section 805 of the New York city energy conservation code and/or applicable standards referenced in such energy code on or prior to December 31, 2024. This provision is subject to exception 1 in section 28-310.3, provided that July 1, 2010 is replaced by January 1, 2020 for the purposes of this section;
11. Weatherizing and air sealing where appropriate, including windows and ductwork, with focus on whole-building insulation;
12. Installing timers on exhaust fans; and
13. Installing radiant barriers behind all radiators.
Radiator Labs provides the only solution that cost-effectively improves profitability, efficiency, and comfort

Existing steam heating retrofit alternatives are expensive, hard to install and do not address resident comfort and maintenance issues
Case Study:

RL is enabling buildings to comply with Local Law 97 goals

<table>
<thead>
<tr>
<th>GHG Emissions</th>
<th>2015 (pre-installation)</th>
<th>2017 (post-installation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHG Emissions* (metric tons/ CO2e)</td>
<td>498.2</td>
<td>401.3</td>
</tr>
<tr>
<td>GHG Emissions/ sq ft</td>
<td>0.00461</td>
<td>0.00371</td>
</tr>
<tr>
<td>2030 LL97 compliant</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

295 Clinton Street, Brooklyn

A 108,000 sq ft multi family building in Brooklyn, New York that **installed Radiator Labs in Feb 2016**.

Under Local Law 97, 295 Clinton is subject to an **emissions cap of 0.00407 metric tons/ CO2e/ sq ft starting 2030**.

With the installation of Radiator Labs, 295 Clinton is already compliant with its 2030 LL97 goal.

Varied payment options make our platform affordable for all building owners

<table>
<thead>
<tr>
<th>Upfront Payment</th>
<th>Cash/ Financed</th>
<th>Service Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$650-850/ radiator*, cost may be financed at 5-8% APR</td>
<td>No money down</td>
</tr>
<tr>
<td></td>
<td>Immediate tax savings</td>
<td>No loans, liens, or encumbrances</td>
</tr>
<tr>
<td></td>
<td>*Utility rebates would reduce final upfront cost</td>
<td></td>
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<tr>
<th>Annual Savings</th>
<th>15-40% reduction in annual gas bill (on average, 25.5%)</th>
<th>All energy savings** (net service fee) goes to the customer</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>**Guaranteed 10% savings backed by product insurance</td>
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<table>
<thead>
<tr>
<th>Payback</th>
<th>2-7 years</th>
<th>Instant</th>
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Financing for Service Model provided by the NY Green Bank and other financial partners.
Cozys in Action!
Cozys in Action (part 2)
Radiator Labs provides a pathway to low-cost electrification

Radiator Labs’ roadmap includes integrating consumer-level window heat pumps with the Cozy.

Heat pumps can replace window air conditioners, providing baseline heat for most of the winter and cooling in the summer.

Cozy-enabled radiators will provide supplemental heat when outdoor temperatures are very low, real time pricing, or demand response events call for it.
Electrification enables buildings to efficiently meet emissions caps

50% emissions reduction potential through electrification product.

Future Electrification Capabilities

- Meets 60-80% of space-heating requirements plus 100% cooling needs.
- Controllable via thermostat which bundles demand response for municipal fuels and electricity.
- Up to 80% less expensive than traditional electrification strategies, available with zero upfront cost to customers with service model.

This future proofs our offering, aligns us with long-term municipal & utility goals and will significantly drive up sales.
Let’s Get Cozy!

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