



NYC Buildings Ditch Steam Radiators for Heat Pumps

VRF Solutions is modernizing New York’s aging heating systems with high performance heat pumps to meet the city’s ambitious decarbonization goals and Local Law 97 regulations

Anyone who has been to New York City in the dead of winter has noticed something strange: Why are there so many open windows?

What most people don’t realize is that the majority of New York City’s buildings use out-of-date, noisy, and fuel-guzzling steam radiator heating systems that cause apartments to reach uncomfortably high temperatures.

Despite buildings accounting for two-thirds of the city’s total greenhouse gas emissions, one might ask why the city allows these inefficiencies to exist, especially when alternative systems exist that could readily solve the climate issues and provide a much better indoor environment for the residents.

“Occupants will do anything to get comfortable, including opening the window to let excess heat escape their apartment,” says Joe Novella, Chief Building Scientist at VRF Solutions. “Not only is New York City’s existing infrastructure carbon-based, but most of the energy is wasted. This is costly to both the environment and the building owner.”

Effective in 2024, Local Law 97 (part of the NYC Climate Mobilization Act) aims to aggressively reduce the carbon emissions of buildings over 25,000 sq. ft. by 40%, with a long-term goal of an 80% deduction by 2050. Building owners who miss these targets will be subject to substantial carbon penalties approaching hundreds of thousands of dollars per year.

Electric heat pumps are a game changer for decarbonizing buildings. In addition to complying with LL 97, they also offer a wide range of benefits, including:

- Individual temperature control for improved occupant comfort
- Enhanced indoor air quality
- Reduced carbon emissions
- Lower operational and maintenance costs
- Increased property resale values

A co-op at 350-354 West 12th Street in West Village recently completed a full retrofit of its heating, air conditioning, and domestic hot water infrastructure. The project was executed by VRF Solutions, a design-build mechanical contracting firm specializing in decarbonization with

high-performance heat pump systems.

"These are classic West Village buildings, built in 1865, and feature coveted architectural details like separate entrances and six-over-six window frames that are not energy efficient, but lovely to look at," said VRF Solutions President Tom Esposito. "With this heat pump upgrade, each residence has control of its own heating, and air-conditioning, and the building will meet critical environmental standards to avoid carbon penalties from the city."

The 42-unit co-op completed the work in under a year, thanks to VRF Solutions' comprehensive design-build service, which managed all engineering, permit expediting, procurement, contracting, and commissioning work.

In the time it took other co-ops to conduct a preliminary study on how to approach a project like this, VRF Solutions delivered the finished product.

"Because we handle all the work in-house, our ability to value-engineer and execute is typically half the time and less expensive versus the conventional approach, which requires the coordination of numerous consultants, construction management, and subcontractors," said Joe Novella.

VRF Solutions is a leading design-build decarbonization firm incorporating the latest building science, holistic design, and world class technologies. By right-sizing their mechanical systems, VRF Solutions typically saves clients over 30% in installation and energy costs.

As a top recognized high performance mechanical contractor, many renowned consultants in the city, including Bright Power, Steven Winter Associates, and BlocPower, rely on VRF Solutions for their expertise and high-quality work.

About VRF Solutions, LLC

VRF Solutions is a Manhattan-based innovative design-build contracting firm specializing in high-performance electric heat pumps, indoor air quality, and domestic hot water systems in the Tri-State Area. The company handles the entire process in-house, completing projects quickly and for a fraction of the cost. Learn more at <https://www.vrf-solutions.com> or call us at (833)-873-4822 to discuss your heating and cooling needs and proactive strategy toward LL 97 compliance.