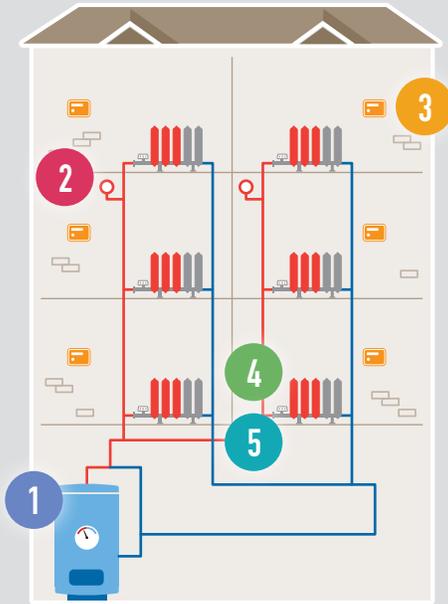


SMART STEAM HEATING UPGRADES

Most steam heating systems are decades old and haven't been updated. Outdated systems waste heat, cause apartments to be too hot or too cold, and lead to banging or hissing pipes.

There are cost-effective solutions to fix steam heating systems that can save between \$10,000 and \$30,000* a year on energy costs. The best approach is to address the system as a whole.

TWO-PIPE STEAM BUILDING

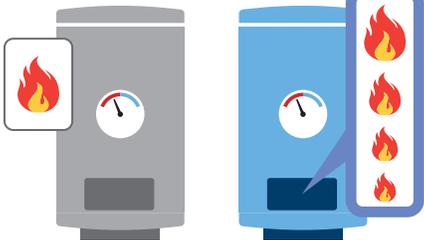


1 BOILER TUNE-UP

Enable burner modulation. Most boilers can vary their steam output to match the building's needs, but this ability is often bypassed.

BEFORE

AFTER



You can also:

- Clean and tune the boiler
- Regulate and reduce pressure for steam production
- Make sure steam is dry

READY TO GET STARTED? CONTACT US TODAY.

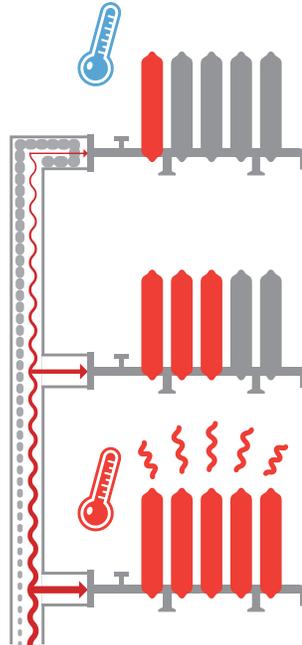
nyc.gov/RetrofitAccelerator

212.656.9202

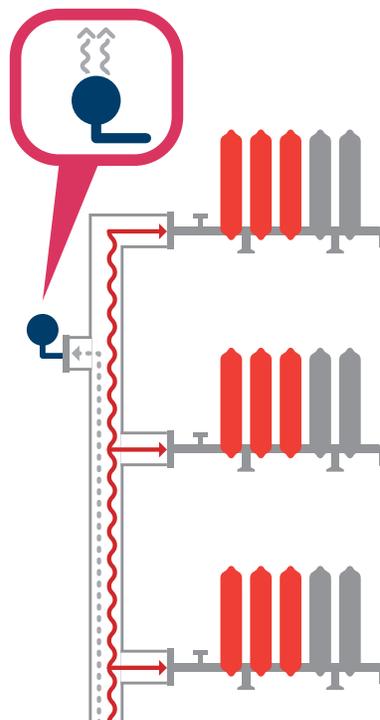
2 MASTER VENTING

Add master vents to pipes. Without master vents, air blockages in pipes prevent steam from being distributed evenly. This causes some apartments to get too hot, while others don't get enough heat. Adding vents to the tops of risers and at the ends of mains allows air out of the pipes so that steam can fill the pipes and be distributed evenly.

BEFORE



AFTER

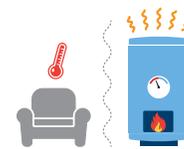


3 CONTROLS AND SENSORS

Install smart boiler controls and sensors.

Most boilers operate based on the outside air temperature, which can lead to overheating. Installing wireless temperature sensors—and boiler controls that communicate with them—allows the boiler to read temperatures inside the building instead. This means units get the right amount of heat at the right time.

BEFORE



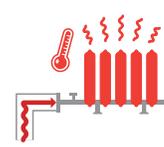
AFTER



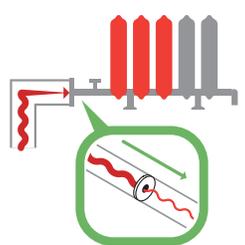
4 ORIFICE PLATES (FOR TWO-PIPE STEAM BUILDINGS ONLY)

End steam trap problems. Most radiators are too big and produce too much heat. Steam traps on radiators also break, which contributes to banging pipes. Adding orifice plates regulates steam flow and eliminates the need to repair steam traps.

BEFORE



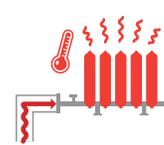
AFTER



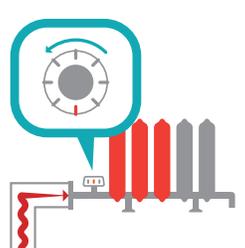
5 TRVs

Add thermostatic radiator valves (TRVs) in apartments. Without TRVs, there's no way for residents to turn down the heat when an apartment is getting too much steam. Adding TRVs enables residents to control the heat in their units.

BEFORE



AFTER



*Based on building size and heating fuel.