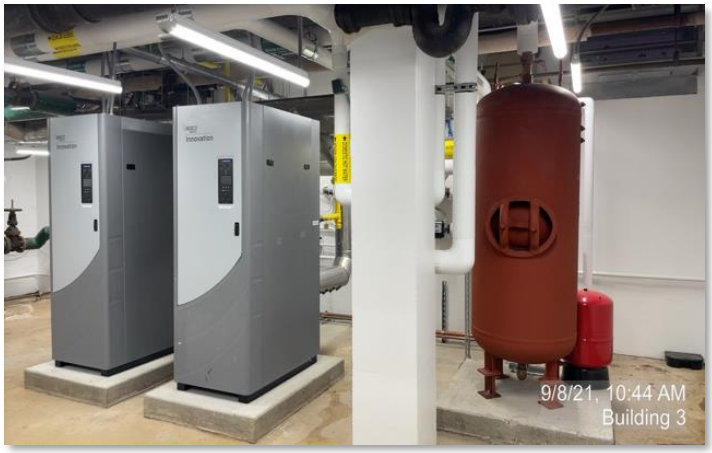
NYCHA Capital Projects Fact Sheet:
BOILER REPLACEMENT & DECOUPLING OF DOMESTIC HOT WATER

1. **Project Overview**
   - This standard scope of work includes installation of new, high-efficiency gas-fired steam boilers and decoupling of the domestic hot water (DHW) system, with no changes to equipment in residents' apartments.
   - NYCHA's typical existing baseline system is a central heating plant comprising gas-fired steam boilers that are fueled by natural gas. A central heating plant produces steam for both heating systems and domestic hot water, which is distributed to all buildings via underground and vertical distribution piping.
   - Boilers have a useful life span of 25-30 years.

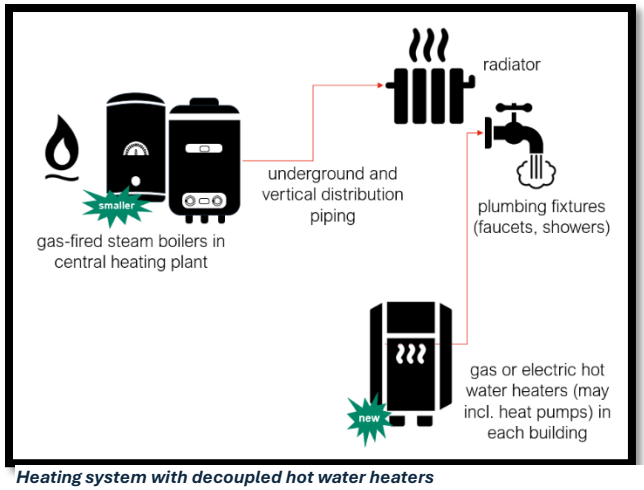
New boilers at Cypress Hills



New hot water heaters at Cypress Hills

2. **Key Terms**
   - Steam boiler: A closed vessel in which water is heated using a fuel source (like natural gas) to produce steam. This steam is then used for heating across the development and distributed by underground and vertical piping.
   - Hot water heater: Operates by heating water to a preset temperature using gas or electricity and then storing it until needed, ensuring that several hours of hot water usage are available on demand.
   - Flue: A pipe used to convey harmful boiler exhaust such as carbon monoxide outside. Typically installed on the exterior of the building.

3. **Why is this capital project needed? Why is it important?**
   - Boiler replacements ensure long term energy efficiency and reliable production of heat and hot water to residents' apartments for decades to come.
   - With decoupled hot water heaters in each building, less energy is lost in distribution.
   - Decoupled systems mean hot water supply is unaffected by potential boiler outages. Also, boilers can be serviced during warmer months



Heating system with decoupled hot water heaters

without affecting hot water supply, extending the asset's life, and improving its maintenance.

4. Scope of Work Details

- The **basic steps of boiler replacement** are as follows:
  1. Set up temporary boilers which will remain for duration of the project. Both NYCHA and the Contractor will be able to monitor the temporary units in real-time through an internet-based system.
  2. Remove boilers and associated equipment and piping.
  3. Repair and refinish the boiler room interior.
  4. Install new boiler, hot water heaters, and associated equipment and piping.
  5. Install flues on the exterior of building.

  Other steps may include replacing sump pumps in the cellar hot water Tank Rooms and repair and refinishing Tank Room interiors.

Flues at Morris Houses

5. Construction Trades & Other Roles Involved

Type	Possible Roles	
Trade	• Asbestos & Lead Handler • Bricklayer and PCC • Carpenter • Concrete Worker • Duct Cleaner • Electrician • Hoist / Rigger • Iron Worker • Laborer (including Flaggers, Demolition Workers)	• Metal Fabricator / Welder • Painter • Plasterer • Plumber • Roofer • Scaffolding Erector • Sheetmetal Worker • Steamfitter • Teamster • Waterproofer
Non-Trade	• Admin • Security • Superintendent • Supervisor	• QA Personnel • Technician • Timekeeper

6. **Typical Project Timeline**
   - The construction period is typically 18-24 months.

7. **What to Expect During Construction**
   - The contractor is required to provide 24/7 emergency repair for the **temporary boilers**. The contractor must report to the site within 2 hours of any notification of the unit malfunctioning.
   - The project will require **planned service interruptions** over construction duration (typically one day per building). A water service interruption will also occur during the temporary water heater installation. Residents will be provided with **at least 48-hour notice** before any service interruption.
   - New gas service piping will be installed to each building for new hot water heaters only. Will require **trenching** and it will not affect apartment/domestic gas service.
   - **Construction sidewalk sheds** are installed to protect residents from falling debris and are removed post-construction.
   - Walkways and parking lots may be **blocked or limited**.

8. **Mitigating Construction Impacts**
   - Access: All accessways are measured to ensure emergency vehicles can still mobilize where necessary. In excavation areas, any trenches accessible to pedestrians are sealed after work daily. Continuous inspections begin after the start of trenchwork.
   - Parking: Staging areas may interfere with development parking. Parking plans will be coordinated with Resident Leaders.
   - Environmental Safety: A site-specific NYCHA approved pest control plan is put in place once site work begins. Furthermore, a Community Air Monitoring Plan (CAMP) is implemented for all ground intrusive activities.