

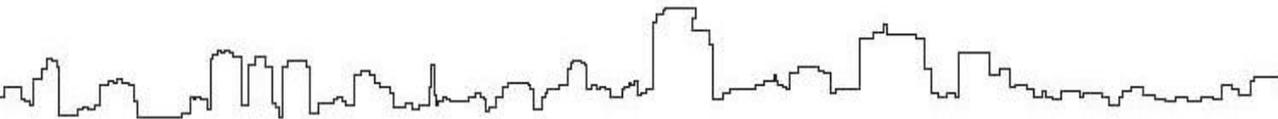
# Green Retrofit Initiative

**Elizabeth Glynn**  
**Eric Gardner**

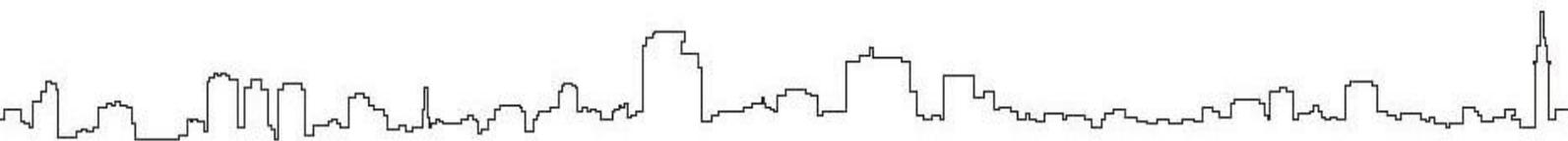
[eglynn@lisc.org](mailto:eglynn@lisc.org)

[gardner@newecology.org](mailto:gardner@newecology.org)

[MAGreenRetrofit.org](http://MAGreenRetrofit.org)

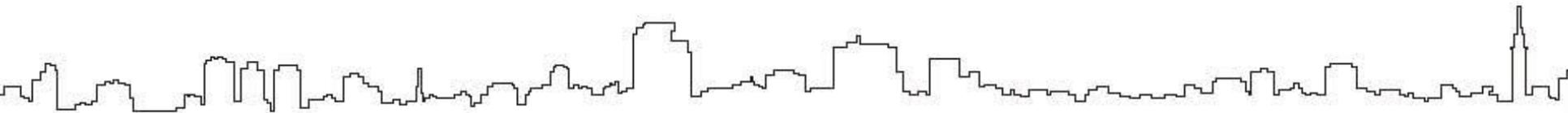


# Who's here?



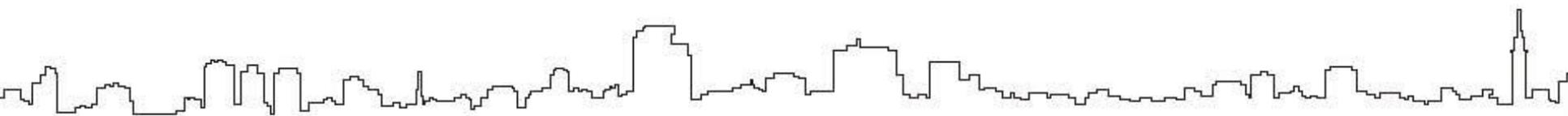
# What Kinds of Buildings?

- small to large, wood and masonry, scattered site and centrally located – each building is unique



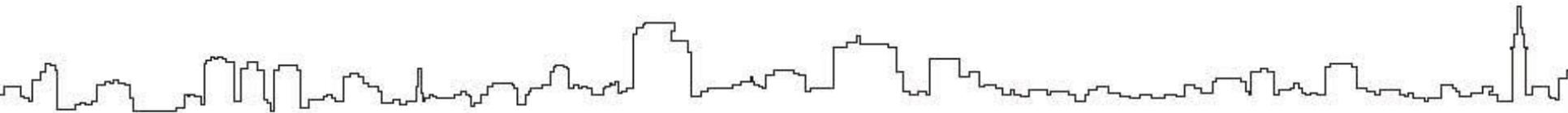
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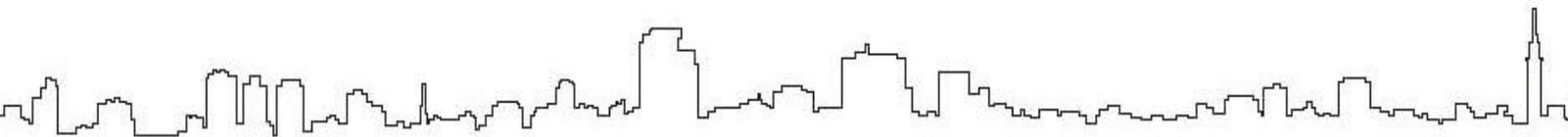
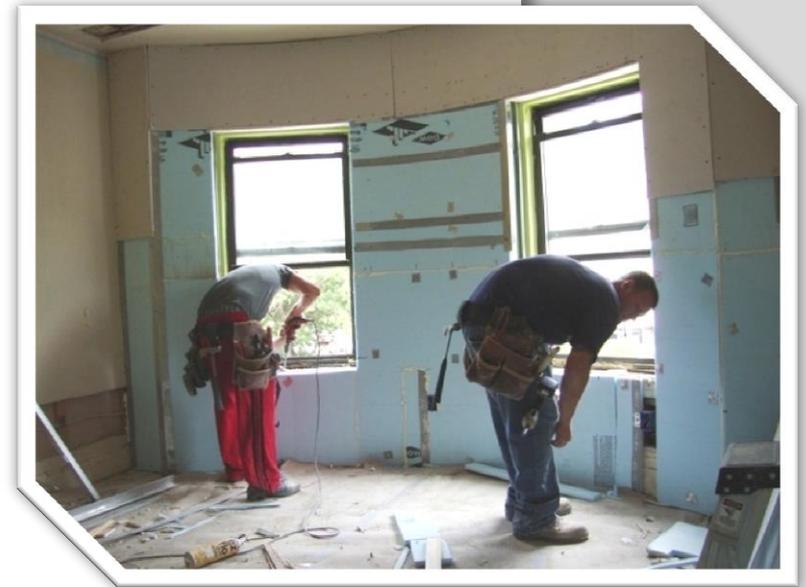
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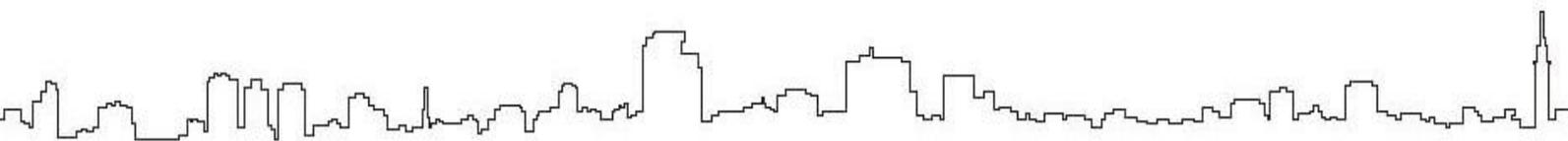
# Green Retrofit Initiative

- energy efficiency is never an emergency
- technology is continually evolving and changing
- funding options/programs are constantly changing
- owners can't specialize an FTE for efficiency unless they own several thousand units
- MF housing owners need specialized help



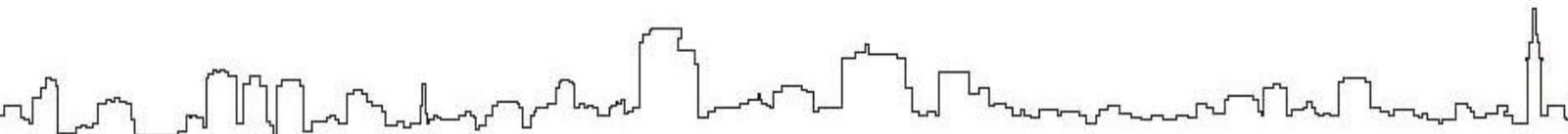
# Technical Assistance

- We can help you to:
  - benchmark
  - develop priorities and action plans
  - implement retrofits (from finding funding to construction management)
  - train operations & maintenance team
  - post-retrofit performance



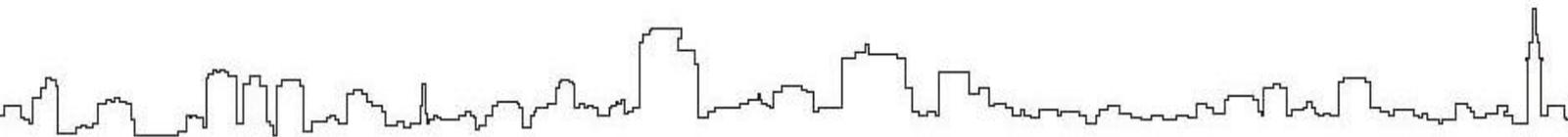
# Mass Green Retrofit Initiative

- expanded to cover all owners of affordable, multifamily housing statewide
- aggressively seek worst performing properties through outreach and benchmarking
- currently free to owners through two primary funders:
  - HUD Energy Innovation Award
  - Barr Foundation



# Green & Healthy Management

- developed with CDC and management staff
- practical, workable measures
- no new processes
- clearly articulate tasks to achieve goals
- pre-emptive upgrades rather than emergency





# Green & Healthy Property Management A Guide for Multifamily Buildings

February 2013



## Green Cleaning

**Goal** Maintain properties cost-effectively using green cleaning products that minimize the use of harmful or toxic chemicals. Ensure property management staff and vendors use green cleaning products.

**Key Actions**  
**Property Owner**  
Require staff, Property Manager, vendors and contractors to use green cleaning products that meet third party certification unless such products are not available or cost-effective. Acceptable green certifications include: GreenSeal, U.S. EPA Design for the Environment (DfE), and Eco Logo.

**Property Manager**  
1. **Require all vendors (cleaning, other rehab contractors) to use green certified cleaning products** unless the product is not available. If vendors cannot identify an available cost-effective cleaning product that is GreenSeal or Eco Logo Certified, or DfE approved for a particular use, the vendor shall evaluate if that specific product is needed. If the product is critical the vendor shall provide the Property Manager a written request to justify the use of a non-third party certified cleaning product and obtain written authorization. Such authorization is not required during emergency cleaning activities.

2. **Encourage the use of:** dilution control systems (to reduce packaging waste and supplies), Microfiber wipes and mops, HEPA filtration vacuums, Green Seal certified or Forest Stewardship Council (FSC) certified paper products.

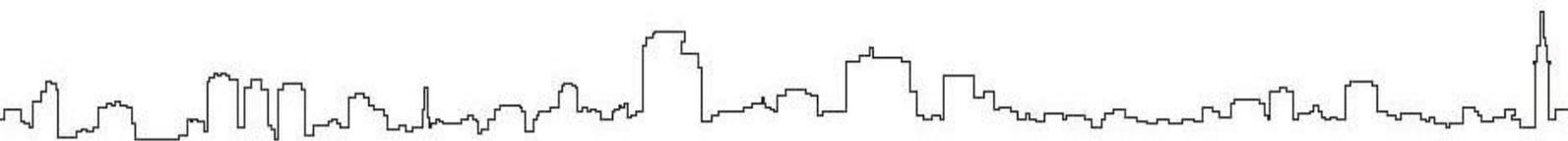
**Tracking** Annually review Green Cleaning progress.

**Resources**  
Design for the Environment (DfE) – [www.epa.gov/dfe](http://www.epa.gov/dfe)  
Eco Logo – [www.ecologo.org/en/](http://www.ecologo.org/en/)  
GreenSeal – [www.greenseal.org](http://www.greenseal.org)  
New York State Green Cleaning Program – [www.greencleaning.ny.gov](http://www.greencleaning.ny.gov)

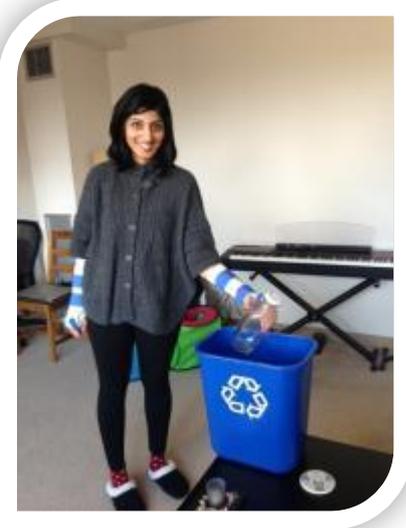
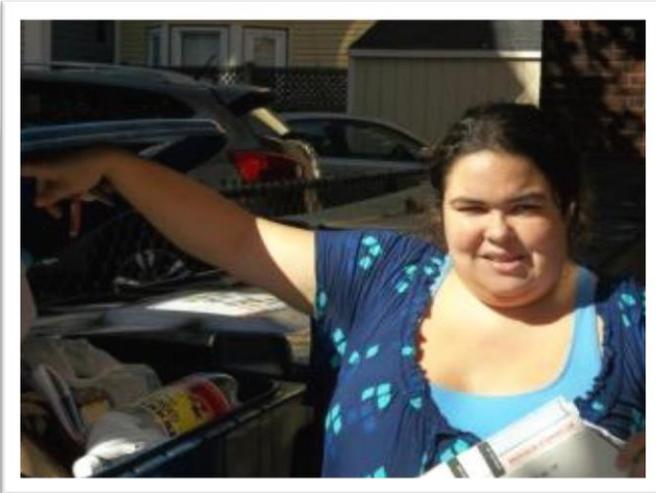
# Oak Terrace Smoke Free Pilot



- **84%** say smoke bothers them
- **16%** allow smoking in some places of their house; **84%** do not
- **97%** of households support a smoke-free housing policy



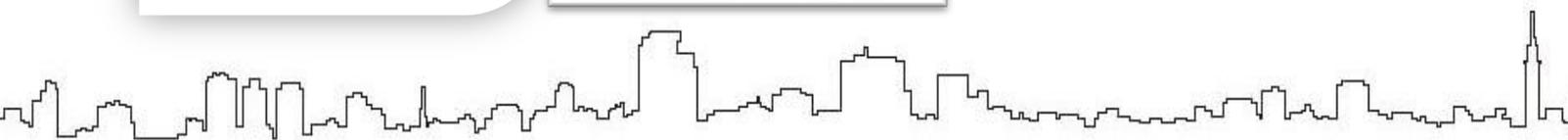
# Catch Residents "green-handed"



**N** NEW  
ECOLOGY  
INC.  
**E**  
**I** Community-Based  
Sustainable  
Development

**LISC**  
*Helping neighbors  
build communities*

**wegowise**



# Benchmarking Targets

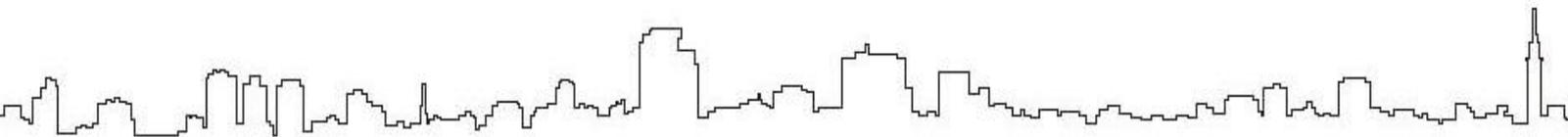
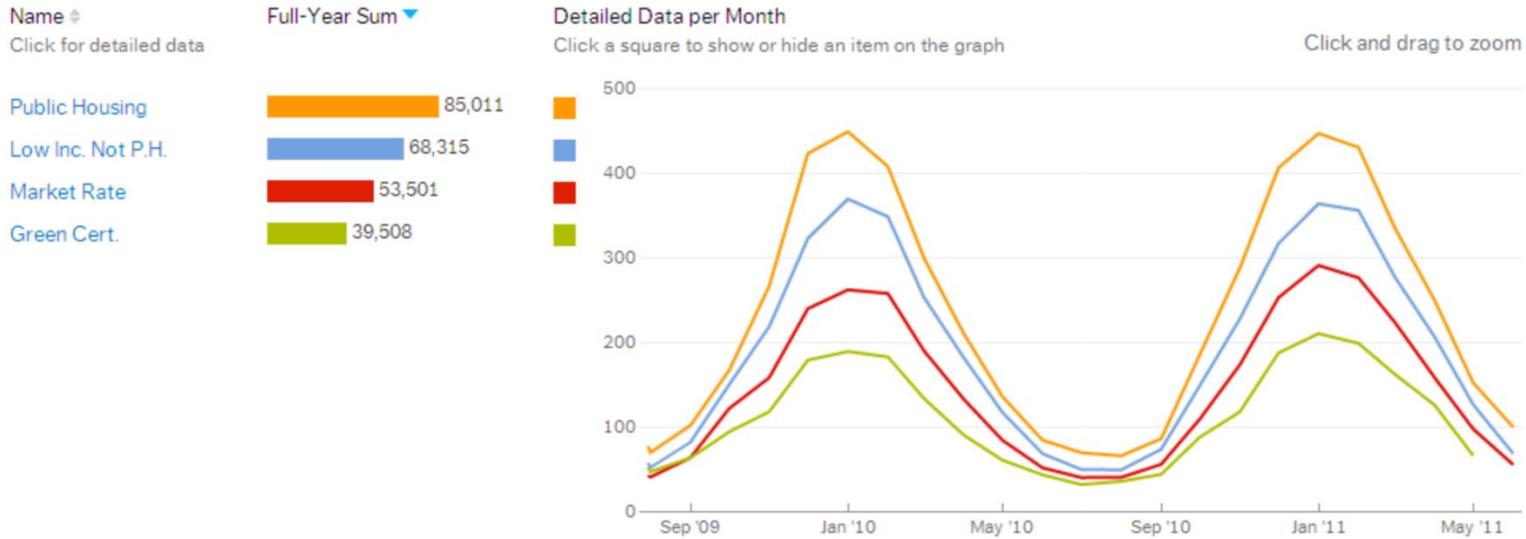
## Housing Authorities

Custom Reports » Housing Authorities

[View Report](#)
[Edit Report](#)
[Delete Report](#)

Natural gas use in Btu per square foot

[Show Raw Data](#)
[Add Benchmark](#)
[Bookmark This Report](#)



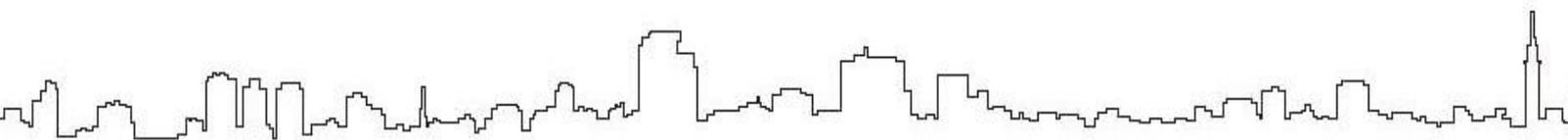
# Case study: Boiler Replacement



## Brighton Allston 1387 Commonwealth Ave

Brighton Allston Apartments is 60-unit multi-family rental property including 2 sites, renovated in 1997. The 1387 Commonwealth Ave. site is one of the sites.

<b>#Unit Number</b>	20
<b>#Total Bedroom</b>	36
<b>Built Year</b>	1920
<b>Stories</b>	5



# Case Study: Boiler Replacement

Summary View | View Data | **Building Upgrades** | View Characteristics

Effect of Boiler Upgrade (October 1, 2010)

[Back to list of all upgrades](#)

Heating energy in Btu per square foot (conditioned)

Raw Data | Bookmark | Download

Date Range

Full-Year Sum

Detailed Data per Month (Deselect All)

Click a square to show or hide an item on the graph

Click & drag to zoom in

Oct 10 - Sep 11

4.08

Oct 09 - Sep 10

6.51

**Before:** (2) 180,000 BTU Burnham gas boilers

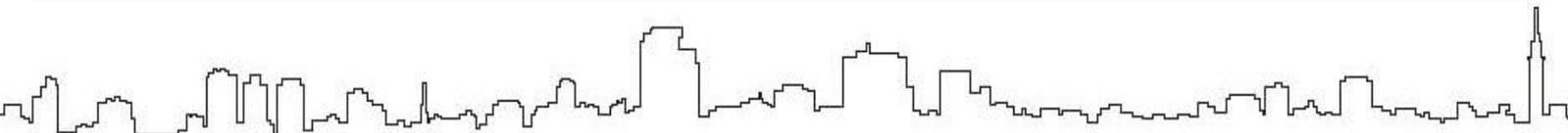
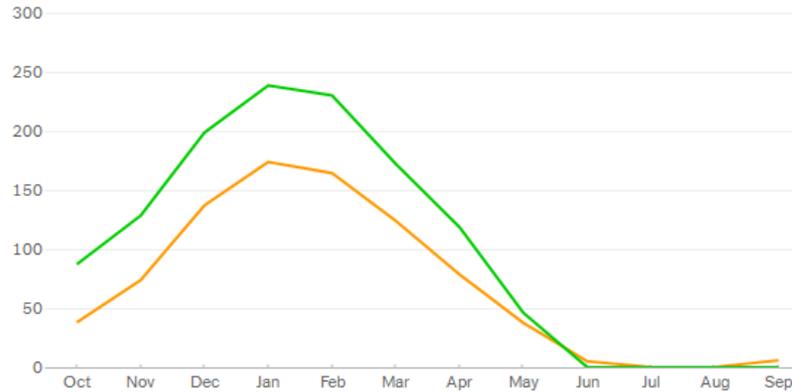
**After:** (2) 660 lochinvar knights gas boiler; 120 gallon storage tank for DHW

**Cost:** \$64,000.00

**Expected Savings:** 20%

**Actual Savings:** 37% (2 Btu / conditioned sqft / HDD)

Categories



# Shared Energy Management

- Opportunity for cost-effective, technical and financial resources necessary to drive energy reductions
- Makes a significant impact on the financial bottom-line of providers of affordable housing
- Important part of providing healthy, comfortable, and affordable housing for underserved populations
- Assists in preserving affordable housing by stabilizing potentially volatile energy costs

