



Boston LISC

Green Retrofit Initiative

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BostonLISC.org



Local Initiatives Support Corp.

- national organization with community focus
- LISC mobilizes corporate, government and philanthropic support to provide local community development organizations with:
 - loans, grants and equity investments
 - local, statewide and national policy support
 - technical and management assistance



Boston LISC

- affordable housing lending
- Resilient Communities/Resilient Families – comprehensive, place-based community development initiative
- lending and TA for equitable transit-oriented development
- capacity building for community development
- Financial Opportunity Centers
- Community Safety Initiative
- Green Retrofit Initiative





Green Retrofit Initiative

- Barr Foundation grant and collaboration
- builds CDC Capacity
 - grants for staff time or 3rd party assistance
 - community of practice
 - predevelopment “green” recoverable grants
- Technical Assistance
 - benchmarking
 - engineering, green expertise – New Ecology, Inc.
 - green & healthy management
 - others as needed (specialized green engineering, legal, etc.)

Green Retrofit Initiative

- retrofit funding and financing exists
- owners of small portfolios can't use an FTE for efficiency
- energy efficiency is never an emergency
- funders/financers don't want to create programs without a pipeline
- we help owners connect to funding
- we help develop a pipeline of potential energy efficiency projects

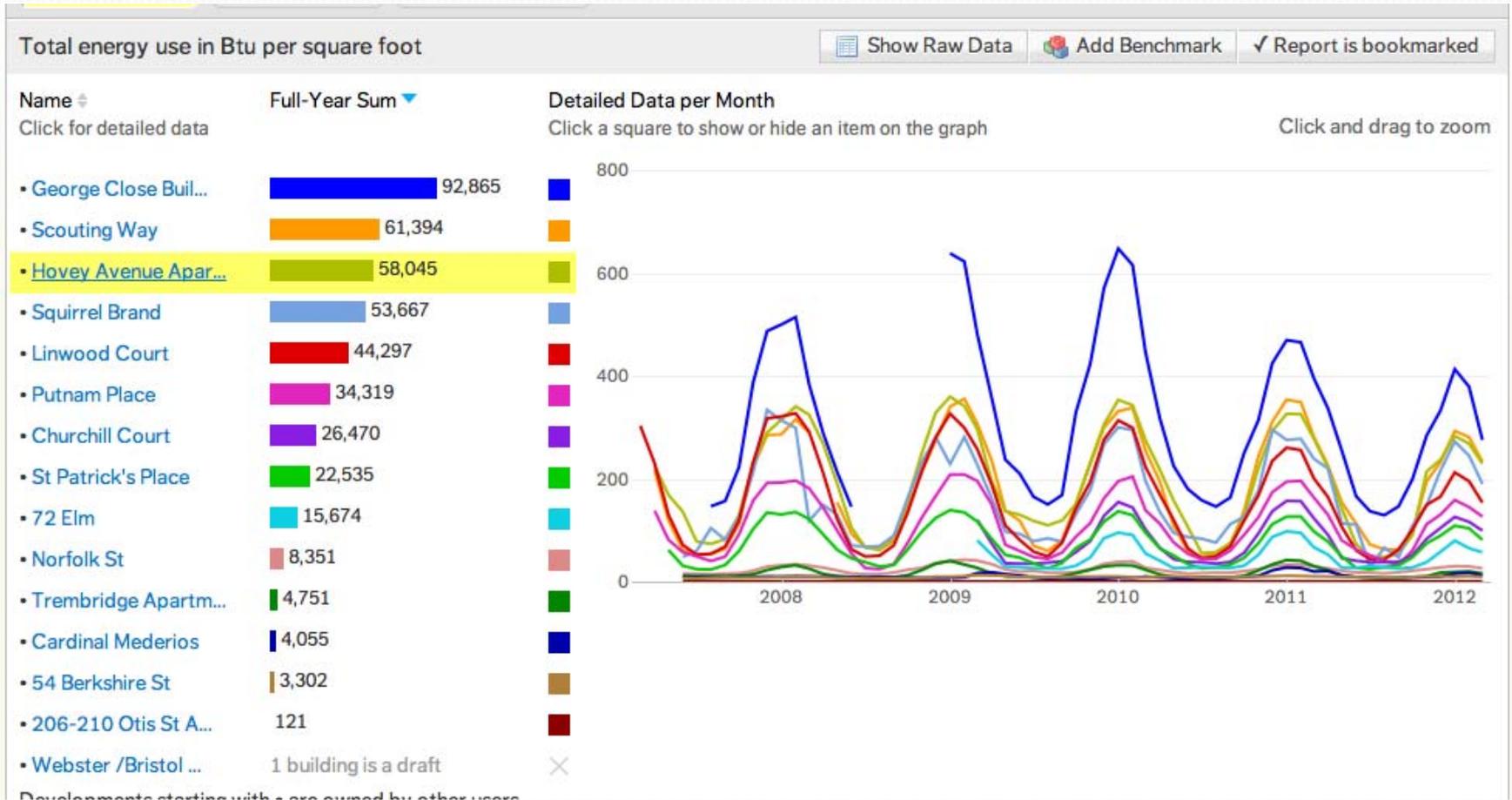


Tasks for Energy Managers

- benchmark properties
- apply for free services and funding (utilities)
- match retrofits to existing funding
- develop long-range retrofit plans
- track progress



Identify Energy Hogs



Not Just Retrofits...

- network meetings – topic of interest, lots of discussion
- green & healthy property management
- “green” CNA providers
- smoke-free
- policy advocacy on key funding issues
- bostonlisc.org



Who's Involved?

- 11 Community Development Corporations
 - 5,740 units in total
 - 140 properties
 - 540 buildings
- CDC staff – asset managers, project managers, RE directors
- New Ecology “energy managers”
- LISC staff
- Barr Foundation



Accomplishments 2010-2011

- 5,000 + units benchmarked
- 2,020 units retrofitted (34 properties)
- \$4MM + leveraged (construction costs)
 - \$1.5 MM from multifamily utility program
 - \$650,000 private grants (LISC and others)
 - \$450,000 owner contributions and reserves
 - \$700,000 local funding (City of Boston)
 - \$250,000 gov't renewable pilot programs





Post-Retrofit Data

- 41 buildings (818 units) with full year post-retro data
- Average targeted energy savings of 19%
 - Low 1%
 - air seal and pipe insulation
 - window replacements
 - High 52%
 - boiler replacement (no other measures)



Boiler Change-out

Effect of Boiler Upgrade (October 1, 2010)

[← Back to the list of all building upgrades](#)

Heating energy in Btu per square foot (conditioned)

[Show Raw Data](#)

[Bookmark This Report](#)

Name	Full-Year Sum	Detailed Data per Month
Oct 09 - Sep 10	9.0	Click a square to show or hide an item on the graph
Oct 10 - Sep 11	4.28	Click and drag to zoom

Description of Upgrade

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

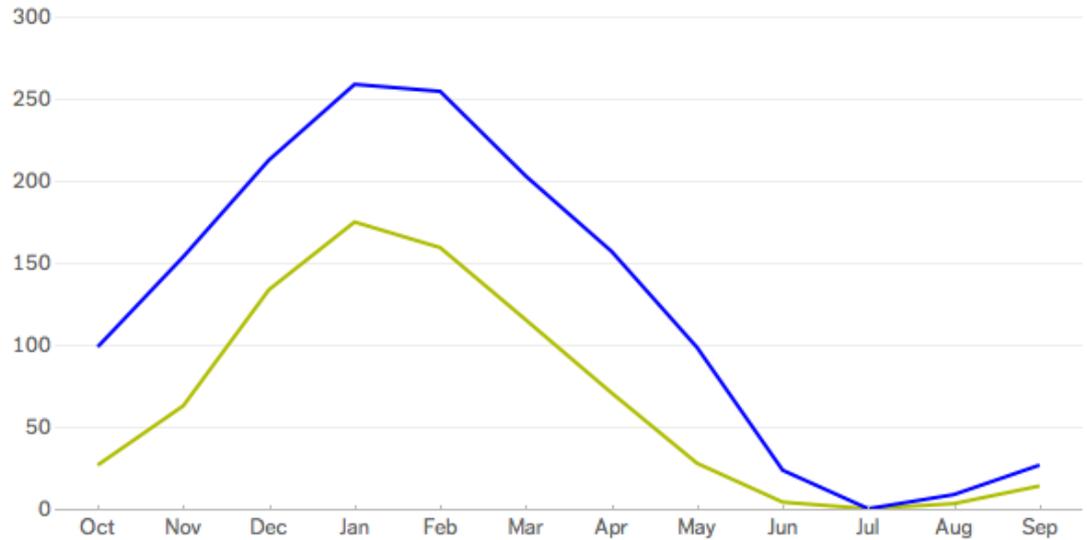
After: (2) 660 lochinvar knights gas boiler; 120 gallon storage tank for DHW

Cost: \$64,000.00

Annual Savings

Expected: 20%

Actual: 52% (5 Btu per square foot (conditioned))



Water Retrofit

[View Data](#)

[Building Upgrades](#)

Effect of Water Retrofit (August 1, 2010)

[← Back to the list of all building upgrades](#)

Water consumption in Gallons per bedroom

[Show Raw Data](#)

[Bookmark This Report](#)

Name ↕

Full-Year Sum ▼

Detailed Data per Month

Click for detailed data

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

Click and drag to zoom

Aug 09 - Jul 10

13,745

■

Aug 10 - Jul 11

7,826

■

Description of Upgrade

Before: older toilets

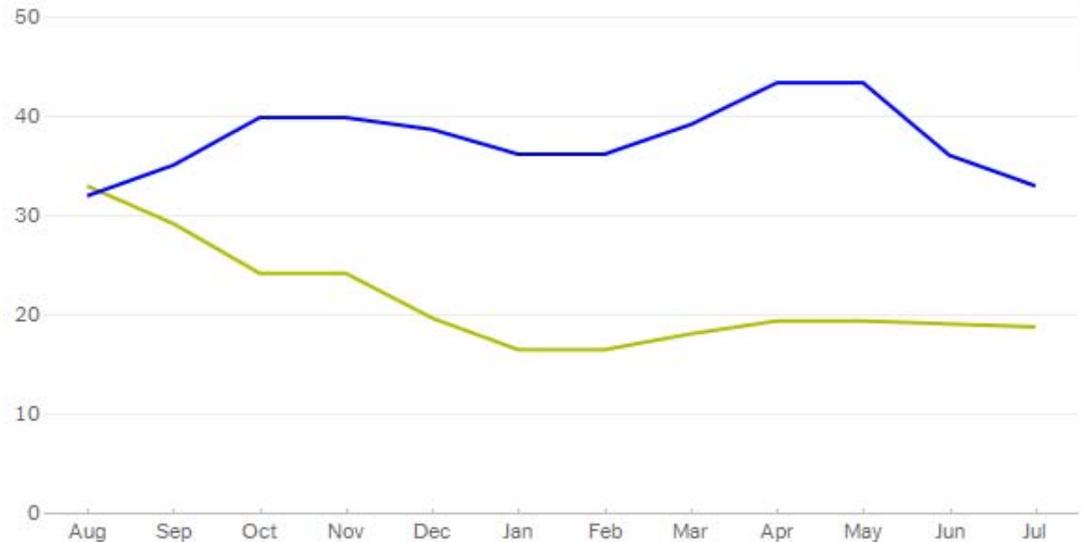
After: 1.28 gpf; aerators; showerheads

Cost: \$750.00

Annual Savings

Expected: 15%

Actual: 43% (5,919 Gallons per bedroom)



Electrical Retrofit

[View Data](#)

[Building Upgrades](#)

Effect of Lighting Upgrade (February 1, 2010)

[← Back to the list of all building upgrades](#)

Electricity use in kWh per square foot

[Show Raw Data](#)

[★ Bookmark This Report](#)

Name

Full-Year Sum

Detailed Data per Month

Click for detailed data

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

Click and drag to zoom

Feb 09 - Jan 10

0.842

Feb 10 - Jan 11

0.736

0.004

0.003

0.002

0.001

0

Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan

Description of Upgrade

Before: older lighting

After: motion sensor

Cost: \$0.00

Annual Savings

Expected: unknown

Actual: 13% (0 kWh per square foot)



Future Retrofit Initiative

- Partner with New Ecology, Inc.
- HUD Energy Innovation Fund - Applied Research
- Barr Foundation grant for match funding
- expand statewide
- all owners of affordable housing (for-profit, too!)
- focus on best practices from 2010-2011

Future Retrofit Initiative

- benchmark 10,000 units (at least!)
- retrofit 2,700 units – average 20% energy savings
- leverage \$7MM in construction costs



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Future Retrofit Initiative

- benchmark utility use and identify energy hogs
- conduct energy assessments
- propose recommended conservation strategies
- work with owners to match funding sources to the recommendations
- manage installation of retrofits
- monitor post-completion building performance
- host periodic retrofit peer-group network meetings
- green operations and management training

LISC-Winn ESCO

- HUD Energy Innovation Fund for finance demo
- open market ESCO model
 - guaranteed savings performance contracts
 - loan capital + credit enhancement
 - energy savings insurance
- Services Model & Lease Model
 - \$9MM lending capital
 - \$7.5MM credit enhancement
- qualified vendor network
- demonstration program for NY-CT-MA

More Info:



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