

# LISC's Guide to Green + Healthy Multi-Family Affordable Housing

## Resources for Nonprofit Intermediaries

### Engaging Property Owners, Developers and Managers

Nonprofit intermediaries who provide support to affordable housing developers can struggle to help improve the performance of their buildings by pursuing cost-effective practices to track energy and water use, undertake energy and water saving projects, and implement health driven property management and rehab strategies to reduce asthma and obesity risks. LISC compiled key activities our offices undertook to support affordable housing owners and managers.

### Approach

#### Key Steps to Support Green and Healthy Property Management

- 1. Identify funding and resources to support green and healthy initiatives.** LISC offices have successfully secured funding for this type of work from foundations, banks, corporations, and public agencies (local, state, federal).

In approaching funders and partners, we stressed that LISC recognizes the complex factors impacting health in low-income families: low-income families suffer disproportionately from preventable health problems like asthma, toxic stress, and obesity because they live in poorly maintained housing and rising energy and water costs often strain the operating budgets, resulting in deferred maintenance and poor indoor conditions. LISC and its partners can help to create healthier living environments, preserve the quality and sustainability of affordable housing and assist housing owners and operators to find simple ways to improve their aging buildings with a focus on addressing potential health risks.

- 2. Select affordable housing owners and property managers to participate in the program.** LISC offices used a competitive process to select Community Development Corporations (CDCs) and other owners eager to work on green and healthy housing strategies. Our knowledge of owner capacity and interest informed the selection process. See sample RFPs to select green + healthy program participants from:

- [LISC Boston](#)
- [LISC NYC](#)

- 3. Identify local energy and other green building resources. Engage local Department of Health staff to provide technical support.** Each locality has its own energy funding resources, water or other green building programs, and health related resources. Affordable housing intermediaries like LISC can:

- Identify these resources and demystify how to best access funding or support
- Work with local government and nonprofit partners to provide: training; background information on the health and housing connections; and technical support to evaluate building conditions

and healthy property management practices. Potential partners include: Department of Health, asthma or healthy homes programs, local housing agencies, American Lung Association or smoke free housing coalitions and asthma coalitions.

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## NYC LISC Works Successfully with City Department of Health and Mental Hygiene

The Two Shades of Green work in NYC was a result of a productive collaboration with the City's Department of Health and Mental Hygiene (DOH). DOH and LISC NYC co-sponsored owner trainings to discuss how building conditions can increase asthma and other health risks and to recommend changes in property management and rehab priorities. DOH also played a critical role in evaluating building conditions, walking through the target properties to identify pest and moisture issues that could be addressed in upcoming renovation and ongoing property management. DOH tools such as the [Integrated Pest Management Tool Kit](#) offered owners resources to take action and modify current practices. DOH also helped to lead evaluation efforts related to pests and broader housing conditions and health risks.

To support policy changes, DOH and LISC NYC sponsored a roundtable with health and housing stakeholders to identify practical policy and programmatic recommendations. This led to added collaboration with the City's Department of Housing Preservation and Development (HPD) to require health related training for firms conducting green physical needs assessments and development teams pursuing new projects, giving them tools to incorporate healthy rehab and property management recommendations. The LISC NYC partners, with added collaboration from Enterprise Community Partners, were instrumental in spurring HPD to incorporate an assessment of potential housing related health risks into an updated NYC [Integrated Physical Needs Assessment \(IPNA\)](#) that is now required for some HPD rehab funding.

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### 4. Provide owners tools and training to benchmark energy and water use, complete Green + Healthy Asset Management Plan, and support owner projects.

Benchmarking: LISC provided owners access to the WegoWise online benchmarking tool and technical support. This step was critical to helping owners understand how their buildings are performing and identify opportunities to reduce energy and water use and costs. WegoWise provided [slides](#), [guide](#), and [primer](#) to help owners get started. Benchmarking information documenting energy use in BTU/SF/Heating Degree Day and water use in Gallons/Bedroom/Day are core ingredients to creating a Green + Healthy Asset Management Plan (GHAMP).

- [Green + Healthy Dashboard](#): LISC requested that owners complete a Green + Healthy Dashboard, shown below, to document current usage and practices around energy, water, and healthy property management. Future targets and new practices can also be recorded.

## Sample Green + Healthy Dashboard

Development	Building Address / Name	Benchmarking energy and water now	Heating Energy (BTU/SF/HDD - average last 12 months)	Heating Energy Goal (BTU/SF/HDD)	Meets Heating Energy Goal?	Water Use (Gallons/BR/Day - average last 12 months)	Water Use Goal	Meets Water Use Goal?
Dixwell Park	12, 14, 18, 20 Dixwell St	E, W	19.8	7	N	68.3	65	N

Development	Building Address / Name	Smoke Free? (Y/N)	Green Cleaning? (Y/N)	IPM? (Y/N)	VOC standards? (Y/N)	Active Design (Y/N)	Other health (Y/N)	Relevant Utility Program (applied Y/N)	Date of Last Energy Audit	Date of Last CNA	Est. Date of Next Renovation / Refi
Dixwell Park	12, 14, 18, 20 Dixwell St	N	Y	Y	N	Y	lead	Eversource Y	9/23/09	3/14/12	Fall 2017

- [Green + Healthy Template](#): A LISC template provides a framework to help owners develop a portfolio-wide plan to address energy, water and health practices or conditions. The format builds upon the Green + Healthy Dashboard to prompt owners to describe upcoming priorities and projects. The GHAMP was developed by LISC Boston, with New Ecology and Tohn Environmental Strategies. Excerpts are provided below.

## Examples of interventions

### Heating Energy Goal:

Increase to 75% by 2019 the number of gas heated residential properties that use less than 7 BTU per square foot per heating degree day (HDD). All new construction will achieve a minimum of 3 BTU/SF/HDD.

Potential actions to realize the goal:

- Define heating energy (BTU/SF/HDD) for all buildings in portfolio (see Green + Healthy Dashboard).
- Define factors that contribute to the energy consumption of each building.
- For buildings not meeting the target, identify 1) opportunities to improve performance (i.e., planned refinance/renovation, robust operating budget, utility funding), and 2) timeline for action.
- Define a schedule to audit each building and/or protocols to respond when data indicates attention is warranted to address energy consumption.

### Smoke Free Housing Goal:

50% of buildings will be smoke free by 2019.

Potential actions to realize the goal:

- Define current % of building that are smoke free (see Green + Healthy Dashboard).
- Set schedule to move target number of buildings to smoke free status by 2019.
- Explore support with local health agency or advocates.

## Technical Support for Owner Projects and Activities

A critical ingredient for success was providing owners support and access to technical resources as they undertook energy, water and health related repairs or modified management practices.

Examples include:

### 1. Identify skilled vendors.

- **Green Cleaning:** In NYC, LISC selected a green cleaning vendor to work with owners. Crown Janitorial provided training, sample products, and ongoing support to help owners adopt this new approach. (See [case study](#) and [Green Cleaning Tool Kit](#)). Selection of a preferred vendor dramatically improved adoption of green cleaning practices. Owners used grant funds to support the transition to green cleaning.
- **Energy Audits:** NYC, Boston and Detroit offices worked with experienced energy and green auditing firms to provide support to owners (New Ecology in Massachusetts, Steven Winter Associates in NYC, Elevate Energy in Detroit).
- **Water Conservation:** NYC and Boston provided owners access to experts to help to assess the cost-effectiveness of water upgrades (New Ecology and Steven Winter Associates).

**2. Provide building-specific technical support.** Our NYC effort relied on the Department of Health to walk through buildings to identify pest, moisture and other asthma triggers. DOH staff also worked with owners and managers to modify pest management practices, identify repairs to address during building renovations, and update vendor pest control contracts. LISC staff in both NYC and Boston helped owners to identify financial resources to support green and healthy upgrades and building specific repairs.

**3. Convene learning sessions.** LISC provided owner opportunities to learn about green and healthy practices in a series of workshops and meetings. See the training slides in the Tools and Resources section below. The Boston office surveyed owners to identify issues and topics that they wanted to more fully explore. Sessions addressed: smoke free housing, specific insulation challenges, and benchmarking for priority setting and to track new system performance. LISC NYC held regular meetings with owners to share experiences about their work. These sessions often prompted owners to pursue actions that they might have been hesitant to adopt prior to hearing from other owners.

**4. Implement evaluation to track changes in energy, water use and cost, and health-related practices.** The NYC Two Shades of Green initiative and our Boston Green Retrofit Initiative tracked changes in energy and water use and costs for building retrofits. LISC used the WegoWise benchmarking tool to track changes in energy and water use and costs following retrofits and/or modified maintenance practices. Evaluation reports prepared using benchmarking data are available ([LISC NYC short evaluation](#); [LISC NYC full evaluation](#); [Boston Green Retrofit Initiative Summary](#)). Examples of outputs created with benchmarking results are shown below. The NYC Two Shades of Green evaluation framework also documented changes in building conditions linked to health risks, with a focus on asthma.

### Electric Consumption Pre and Post Retrofit

