

Greening A Block

For Community Health and Environmental and Economic Sustainability

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Village East Towers

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Greening A Block

Greening A Block is a first-of-a-kind project to demonstrate and quantify the achievable gains in air quality, energy conservation, jobs, and dollars from concentrated, community-based energy-efficiency investments.

- 1 City Block near Con Ed 14th St. Plant
 - 40-50 Buildings
 - 400-500 Apartments
 - 10-15 Storefronts
- 12-24 Months
- \$1.5-2.0 Million

Improve Energy Efficiency

- Heating Systems
 - Tune & Upgrade
 - Air-seal buildings and windows
 - Improve comfort
- Electricity
 - Light Bulb Replacements
 - Appliance Replacements (fridge, A/C)
 - Reduce waste

Goal: 30% Energy Savings

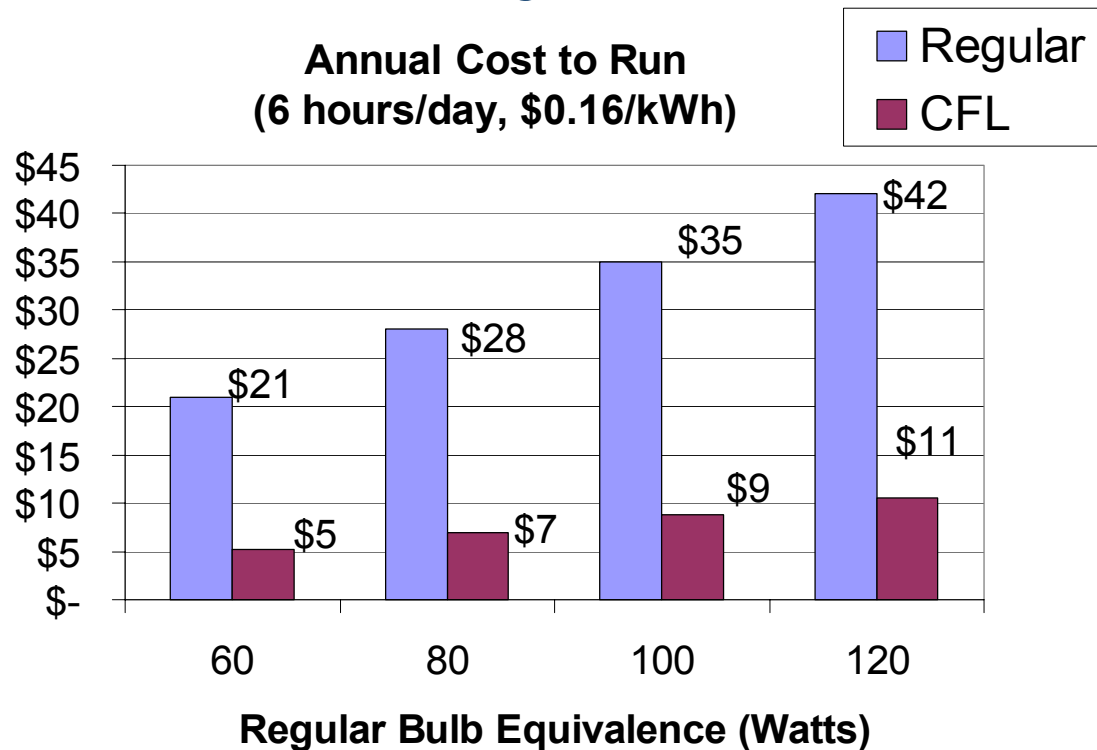
- 180,000 gallons worth of fuel oil, natural gas and electricity per year
(= 300 cars off the road)
- \$270,000 / year in fuel savings
- Savings per apt: \$700/year
(\$60/month)

(Based on fuel oil @ \$1.50/gallon, electricity @ \$0.18/kWh)

Energy Efficiency: Light Bulbs

Compact Fluorescent Lightbulbs (CFLs):

- Use $\frac{1}{4}$ the energy of conventional bulbs
- Last 5-10 times as long



A Variety of More Efficient Lighting



**14W Floodlight (R-30),
65 Watt Equivalent**



**25W Lightwiz Basic Spiral,
100 Watt Equivalent**



**14W Candela Bulb ,
60 Watt Equivalent**

Greening A Block

Energy Efficiency: Refrigerators

GE Refrigerators w/ top Freezer, ~ 18 ft³

Annual Cost to Run
(24 hours per day, \$0.16/kWh)



Energy Efficiency: Heating Systems

11 Buildings on the Lower East Side saved 34%
In fuel costs with heating system improvements

	Before Fuel Saving 1987-90	Year of Improvements 1990-91	\$\$ Savings
Average BTU/ft²/HDD	41.5	26.6	
\$/ft²/year	\$2.19	\$1.40	\$0.79
\$/building/year	\$26,863	\$17,257	\$9,606

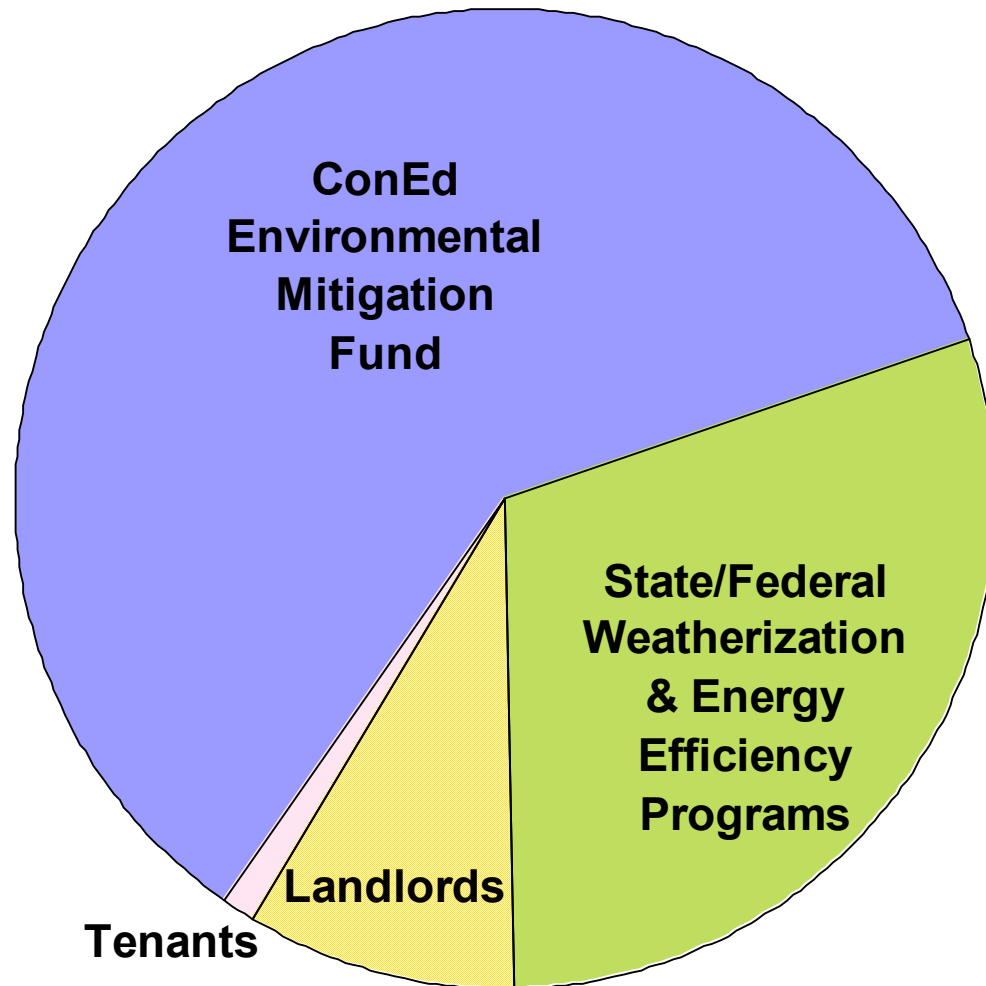
*Source: Gifford Fuel Saving, Energy Information Administration
Fuel Oil @ \$1.50/gallon, building size = 12,292 ft², HDD = 4880*

Renewable Energy Projects

We aim to do at least one demonstration of:

- Solar Panels for
 - Electricity
 - Water Heating
- Wind Turbines for
 - Electricity
- Bio-diesel for
 - Heating
- Green (Planted) Roofs and/or Street Trees

Who Pays?



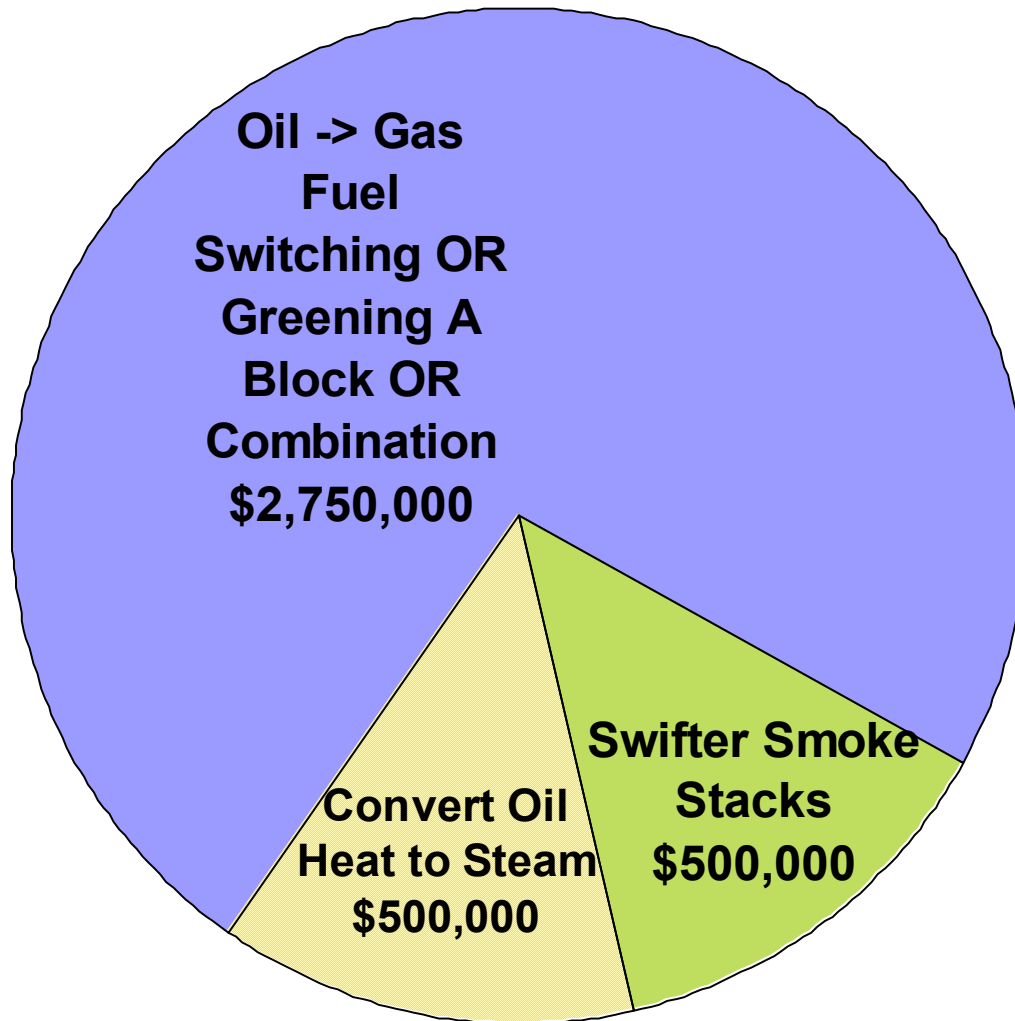
Why One Block?

- Broad sample of buildings and residents
- Representative of Lower East Side
- Economies of scale
- “Co-operative competition”
- No cherry-picking

Why CB3?

- Poor air quality
- High energy costs
- Poor heating and cooling
- Unemployment
- ConEd Plant Expansion
- A Cultural Leader in NYC

The Con Ed fund



Greening A Block

Fuel Switching vs. Greening A Block

Reduction in small particle pollution	Fuel Switch	Greening A Block
Nanograms per cubic meter of air fine particle reduction	19	220
For how long?	4-6 yrs	10-20 yrs
Asthma attacks prevented	(to be calculated)	(to be calculated)
Reduces low-lying emissions?	No	Yes

How Greening A Block benefits health

- Cleaner air
- Apartments are warmer in winter, cooler in summer
- Improved ventilation
- Savings to tenants
- Lasts longer (more years)
- Can be extended to more blocks

How Greening A Block will work

- One Project Manager will oversee
 - energy audits
 - equipment procurement
 - installation
 - monitoring
- Effort to use local labor
- Partnerships with LES / NYC agencies
- Advisory board

Job Creation

- Greening A Block direct jobs in NYC (construction, manufacturing, wholesale, retail, services): **22**
- Greening A Block indirect jobs in NYC from re-spending wages & income: **32**
- Greening A Block total jobs in NYC: **54**
- Con Ed fuel switch jobs in NYC: **0**

Next Steps

- Feasibility Study (in progress)
 - Estimate benefits
 - Clarify project structure
- Formal Project Proposal to CB3
- CB3 Community Meetings + Discussion
- CB3 allocate Con Ed funds for GAB

The Model Block

Must be

- close to Con Ed plant and its plume
- representative of LES buildings
 - building size
 - ownership
 - age and condition
 - heating fuel and system
- representative of LES people and families
 - owners vs. renters
 - children and seniors
 - ethnicity
- will be chosen as part of project

Future Blocks

- The Model Block will be the first, but hopefully not the last.
- With
 - careful management of the settlement fund
 - interest from philanthropic sources
 - and government support

success on the Model Block will enable many more blocks to be “greened” in CB3 and across the City.

GAB Supporters

- East River Environmental Coalition (EREC)
- Neighborhood Energy Network (NEN)
- Open Road
- LES energy and environmental advocates

Interest from

- CB3
- Council Member Margarita López
- Congress Member Nydia Velazquez
- State Senator Martin Connor

GAB Partnerships (mostly pending)

- Open Road
- Credit and finance institutions
- Labor
- Contractors and Hardware

Greening A Block timetable

- Sept. 2005: CB3 postpones Con Ed fuel switching
- Oct. 2005: Complete GAB feasibility study
- Nov. 2005: Community meetings
- Dec. 2005: CB3 allocates Con Ed funds to GAB
- Jan. 2006: CB3 hires project manager
- Feb. 2006: Project manager begins selecting contractors
- April 2006: Work begins – Energy Surveys first
- Dec. 2007: Work completed
- June 2008: 1st Evaluation report
- June 2009: 2nd Evaluation report

Community Board 3's Choice

- Burn up \$2.75 million in 4-6 years for a temporary air quality improvement benefit?

OR

- Kick-start a comprehensive, community-strengthening program to deliver long-term pollution reduction and increase comfort and health, with potential to improve the entire Lower East Side and all of New York City?

For More Information

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