

BEING GREEN IS NOT A SPECTATOR SPORT

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Energy Investment Systems

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Council of New York Cooperatives and Condominiums Annual Conference

Today's Workshop



- New Incentive Programs
- Sustainability Opportunities
- Priority Issues
- Practical Approaches

Speakers



- Rebecca Craft – Director of Energy Efficiency

Con Edison

- Michael T. Colgrove – Director of Energy Programs

NYSERDA-NYC Office

- Isabelle B. Silverman – Attorney

Environmental Defense Fund

- Lewis M. Kwit – President

Energy Investment Systems

Structure



- Introduction
- NYSERDA Programs and Opportunities
 - ▣ Q & A
- Con Edison Programs and Opportunities
 - ▣ Q & A
- Environmental Defense Fund – Activities of Interest
- Energy Investment Systems – What Now?
 - ▣ Q & A

Sustainability is Not a Spectator Sport



- A vision for today
- Doing our best with what's available
- Enhanced livability and property values
- Sticks and Carrots
- Inaction is not an option

Sustainability

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

The Bruntland Report

United Nations 2007



Living



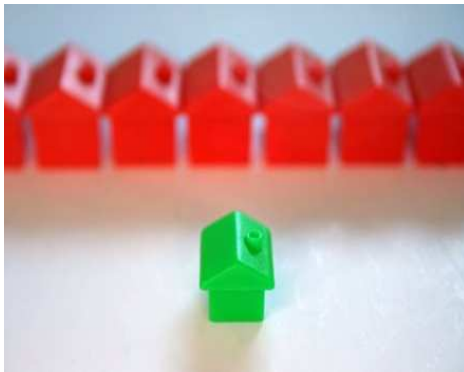
- People spend 80% to 90% of their time indoors
- We spend more time at home than ever before
- Our homes, perhaps more than anything else, define who we are – our style, interests, accomplishments, and abilities

“Homes have the ability to express and embody an understanding of ourselves and our relationship to the world around us. They express who we are, who we want to be, and how we will be remembered.”

-Lori Ryker, *Off the Grid Homes*



Simple Economics



- In the 10 years from 1999 to 2008 building operating expenses at a top Manhattan cooperative – excluding oil costs – **increased 56%**
- During this same period the cost of oil (used for space heating and hot water) **increased 315%**



What Cooperatives Can Do Now

A Path to Sustainability

Who we are



- Energy Investment Systems (EIS) is an award winning consulting firm specializing in developing and implementing sustainability programs for multifamily buildings
- EIS was incorporated in 1984 and has over 25 years of experience in the energy industry
- EIS is a NYSERDA partner
- Our Sustainability Audit is a novel way to assess building opportunities

Livability

“...there is no sustainability without livability; the two are inextricably linked.”

-Strategy+Business “Reinventing the City to Combat Climate Change”



Green roof and view from The Solaire, Battery Park

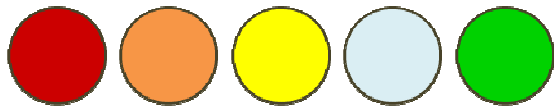
Public Areas and Infrastructure

- Defines cooperative shareholders collectively
- A consciousness of sustainability enhances property value, social responsibility, and environmental quality



Color Gradation Index

Developed with support of Rudd Realty



- Ranges from wasteful to sustainable practices













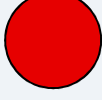



Source: The National Geographic

Photograph by Tanya Turner

- Verified by City experts
- Developed exclusively by Energy Investment Systems, Inc.
- A continuing “work in progress”
- Patterned after thermographic imaging

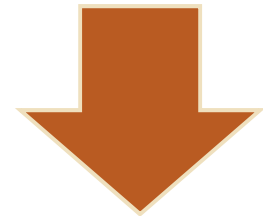
Typical Color Gradation Ratings for a Landmark Building

From the least sustainable level 1 represented by the color red (think “danger”), it progresses through orange, yellow and aqua to a bright green level 5 to signify today’s highest standards of energy efficient, environmentally benign practice.

	Existing Condition	Post Improvement
Heating System/Hot Water		
Window		
Roof		
Electric Service		
Elevator		
Lights		
Electric Motors		

Convert from Oil to Natural Gas

- ❑ Natural gas is produced domestically.
- ❑ Gas prices are 50 cents lower than the oil-per-gallon equivalent.
- ❑ Natural gas has a lower carbon footprint and lower levels of other pollutants than #6 oil.
- ❑ Doesn't emit soot



Hi-Tech Windows Enhance Livability

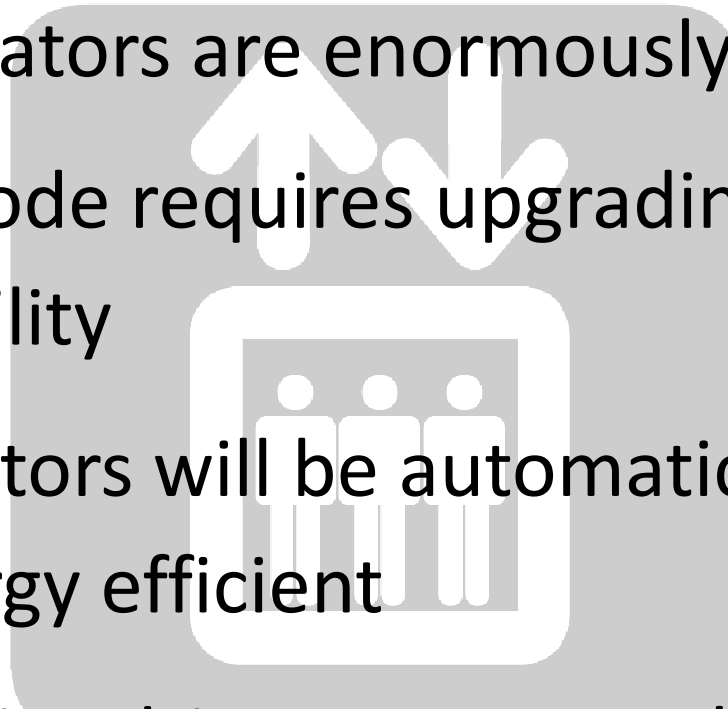
- Attenuate outdoor noise
- Reduce condensation
- Eliminate drafts
- Maintain heat and air conditioning
- Ease operation



In a study by the Municipal Arts Society, 56% of Manhattan residents said their neighborhood was noisy.

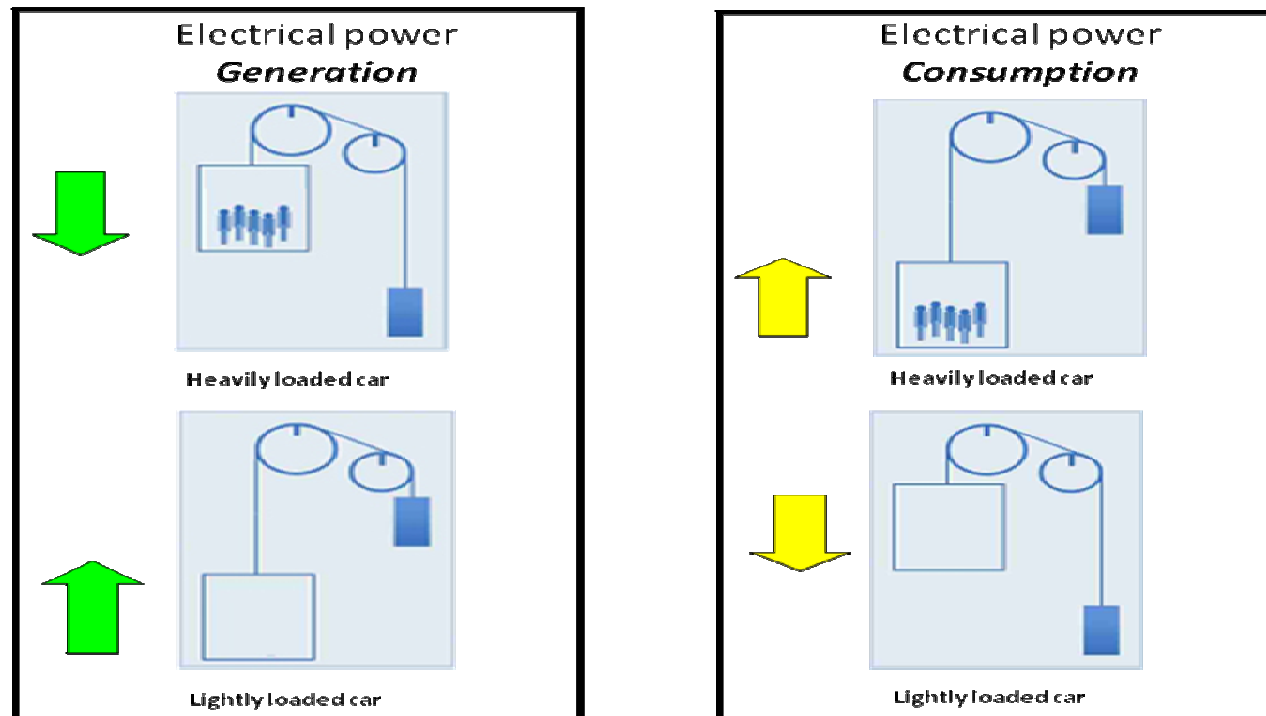
Elevator Opportunities

- Many elevators are enormously wasteful
- Elevator code requires upgrading for safety and reliability
- New elevators will be automatic, safer, and more energy efficient
- Regenerative drives generate electricity
- We call this “Capturing Gravity”



Capturing Gravity

*EIS is promoting this technology to the New York State Public Service Commission as a renewable resource.
The PSC responded to comments submitted by EIS below:*



Energy Investment Systems, Inc. submitted comments urging the inclusion of new technologies to capture useful energy from the gravitational force of downward traveling elevators. We do not have enough information on this proposal to address it at this time, but will not preclude future consideration.

Other Opportunities to Save Energy and Money

- Electric submetering

Bulk purchasing and curtailment

- Replacement lighting

LED and CFLs

- New motors

Premium efficiency

- White Albedo roof

Reduce temperature and energy cost

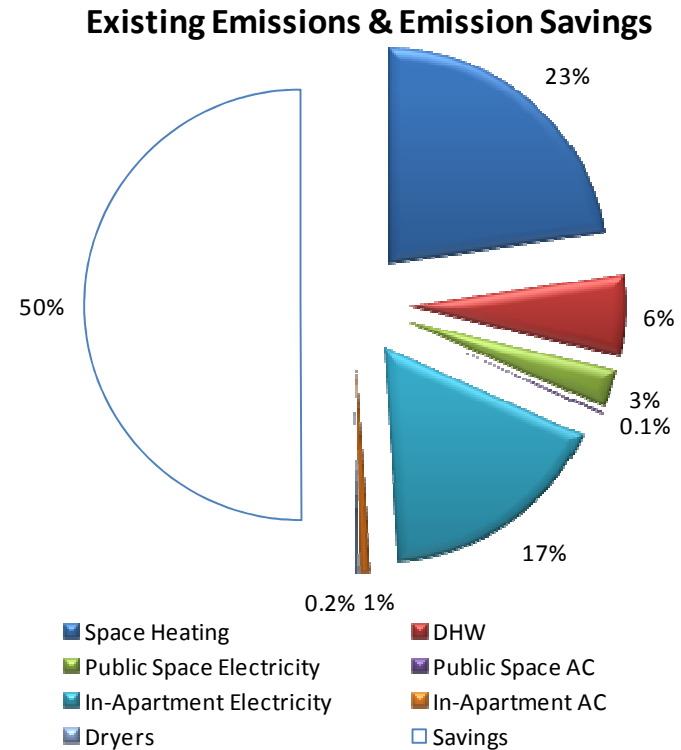
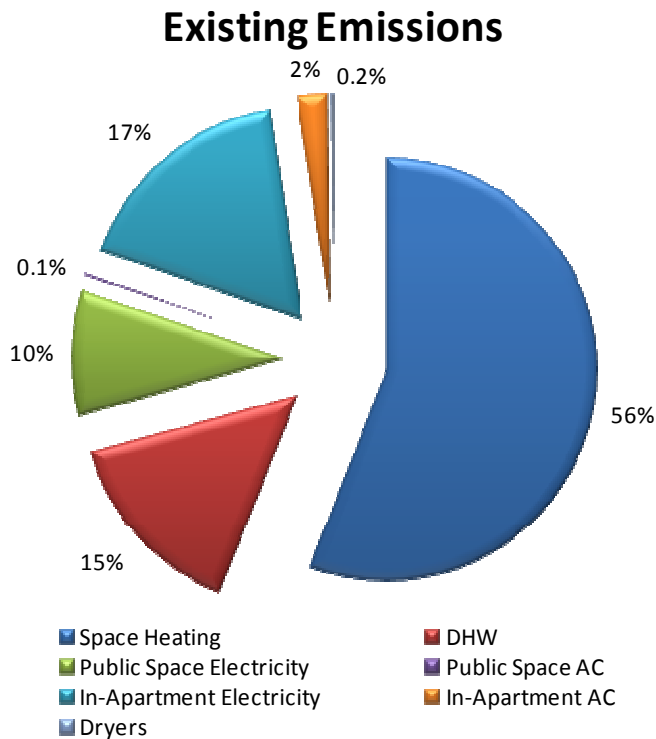


Electricity Submetering

- ❑ Reduce rate by 25% by purchasing power in bulk (if direct metered)
- ❑ Participate in competitive pricing
- ❑ Earn money through curtailment
- ❑ Introduce “when” into electricity pricing



Carbon Footprint



The Environmental Protection Agency (EPA) defines a carbon footprint as “the amount of greenhouse gases (GHG) that are emitted into the atmosphere each year by an entity such as a person, household, building, organization, or company. It is usually measured in units of carbon dioxide equivalents.”

Enhancing Livability with Sustainability



- Sustainable design is accelerating
- Greater customer choices are now available
- Green lighting products, ceiling fans, appliances, and furniture are becoming more available
- Sustainable homes reflect sophistication, environmental awareness, and social responsibility

Sustainable Style

Delta Touch2 0 Faucet

- Reduces water waste through simple touch technology

Philips Eco TV

- 42 inch LCD screen automatically adjusts display to light conditions in room
- Power save mode uses about as much energy as a 100 watt light bulb
- EnergyStar label



Benefits of Sustainability Program Implementation



- Enhanced comfort and livability
- Reduced energy costs and hedge against inflation
- Long term reliability and optimal performance
- Obtain status as sustainability leader
- Enhance property values

Pathway to Sustainability Nirvana



- Form a sustainability committee
- Obtain and review energy cost and usage data
- Identify priorities and wish list improvements
- Select a NYSERDA Partner
- Craft an energy efficiency program – Don't be afraid to take time!
- Establish implementation program.
- Review financing options
- Act – Don't wait! “He who hesitates is lost.”

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