

**Neighborhood Energy Forum at Brooklyn College
organized by Sustainable Flatbush**

Saturday, 20 March 2010

SAVING ENERGY IN COOP APARTMENT BUILDINGS

[Report by Lois Sturm, Neighborhood Energy Network]

Sustainable Flatbush Executive Director Anne Pope shared the answers from her 5-year search on how to reduce her coop's energy use.

Wendy Fleischer, NYSERDA community partner at Pratt, pointed out that the stimulus bill tripled the money for weatherization. We have to pursue the low-hanging fruit for energy reductions – replacing lightbulbs.

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Lucas Falk, Associate Project Manager, NYSERDA Multi-Family Program

July 1 will roll out multifamily program, which will cover NYC apartment buildings.

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Andy Padian
Vice President for Energy Initiatives
Community Preservation Corporation

This year's recipient of the Distinguished Service Award of Northeast Sustainable Energy Association.

“Green is the stuff you do in buildings, not the stuff you put on them”.

TIPS:

1. **Finance energy retrofits** when you refinance mortgage.
2. Find **holes** and seal holes. Andy showed the roofs of Stuyvesant Town, where 500 vents leak a lot of heat.
3. **Hallway lights.** IT IS NOT A REQUIREMENT FOR HALLWAY OR STAIR LIGHTS TO BE ON 24/7 at full blast. Lights dimmable to 2 foot candles can save 88% on the electricity bill.
4. **Hot water.** 40% of the heat in our buildings is used for hot water. The average multi-family building pays more for water than electricity, so low-flow showerheads and low-flow sink aerators are essential.
 - (a) 1.75 gallon/minute showerhead \$6
 - (b) .7 gallon/minute sink aerator \$1 available in plumbing supply store Niagara Earth, NJ company - pays for itself in 55 minutes of sink use
5. **Fix leaks.** A leaky toilet can cost \$12,000/year.
6. Why do we **water sidewalks**? It's expensive, and it leads to ice in winter.

Jonathan Flothow of Steam Balancing Company

Boilers and steam balancing

Don't replace the boiler. That is the first thing everyone thinks of doing (especially people selling boilers). If that is all you do, chances are you won't save much energy.

If you replace a boiler, get a boiler that is the right size. Most boilers are too big. Big boilers burn more fuel. Proper size is determined by the number of radiators.

An on-off boiler is very inefficient. Better to have one that varies low, high, low.

Boiler should never turn off under steam pressure.

Header piping should be installed "as specified by the manufacturer".

Buried pipes end up damaged. They also serve as electrical ground for building.

Steam systems typically inefficient. They were set up for coal, not liquid fuel (oil or gas).

Radiators are one or two-pipe. Fixing a two-pipe system is a capital expense and can improve a lot. A one-pipe system is cheaper and easier to fix, but does not offer as much benefit.

Getting air out before circulating steam is crucial – important to have a good valve. With coal, a system was on all day. With oil, system is often on and off, so it crucial to get the air out. Biggest vent should be on the top floor. Gorton #1 or 2 vent. Vent pipes quickly, radiators slowly.

If system properly balanced, can operate under 1 psi steam. System must be balanced for thermostats to work. Thermostatic radiator valve will only work if system set up correctly.

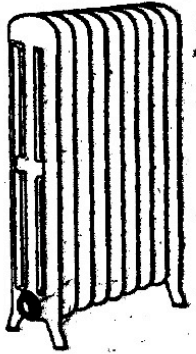
Want pure gas, not wet steam, from boiler to prevent corrosion. Usually water in steel boilers is chemically treated to prevent corrosion. Instead of using chemicals, you can use one, two or three anode bars in the boiler and replace them once a year. Made by Neurochem.

Skim oil off water.

Fresh oxygenated water kills pipes.

It's okay to reduce the boiler output. It dries the steam, makes boiler run more efficiently.

Heat control usually depends on outside temperature. Why not INSIDE temperature? 3 companies make monitors that measure inside temperature, by averaging temperatures from several apartments. US Energy, OAS, and Pepco.



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