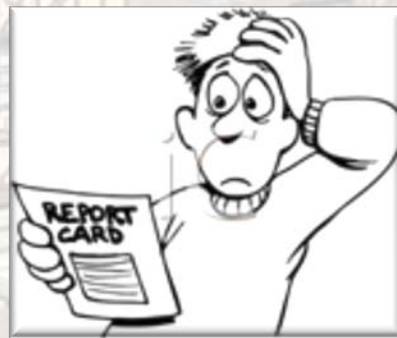




School's in Session: It's Time for Your Building to Become More Energy Smart!





Today's Speakers



Sadie McKeown,
SVP, Director of the
Green Financing
Initiative, CPC



Andrew Giglio,
Benchmarking
Specialist &
Mortgage Officer,
CPC



Hilary Beber, LEED
AP, Policy Analyst
NYC Mayor's Office
of Long-Term
Planning and
Sustainability



**F.L. Andrew
Padian,** VP
Energy Initiatives,
CPC



Today's Agenda:

- What is Benchmarking?
- How did I do? How did others do?
- CPC benchmarked me: What are my grades?
- Is my building a big or little user?
- How can I become a little user?
- Should I get off #6 oil?
- How do I pay for all of this?



The Community Preservation Corporation (CPC)

- Non-profit 501 c(3) mortgage finance company
- Founded in 1974 by NY clearinghouse banks
- Sponsored by more than 70 banks and insurance companies in NY and NJ
- CPC Mission:
 - Provide an economic platform of investment to spur recovery in distressed communities
 - Develop and enhance public/private partnerships



Question 1: What is Benchmarking?

- An accounting of all of your energy usage
- All energy sources are expressed in Btu's
- British Thermal Units
- Total energy usage per square foot
- Required by NYC Local Law 84 for all buildings larger than 50,000 square feet



NYC Local Law 84 - Benchmarking

- REQUIREMENTS
 - Use EPA online Energy Star Portfolio Manager to:
 - Input building data, occupants and operating hours
 - Report monthly energy consumption
 - Water consumption is automatically reported by DEP
- SCHEDULE
 - Annually submit benchmarking information to the City by **May 1, 2011** and **every May 1st** thereafter



NYC Local Law 84 - Benchmarking

Public Reporting

- Annual benchmarks will be posted publicly on a NYC website starting:
 - Sept. 1, 2011 – City Buildings
 - Sept. 1, 2012 – Non-residential Buildings
 - Sept. 1, 2013 – Residential Buildings



Question 2: How did we do?

- Average buildings were average users
- Typical of NYC multifamily buildings
- NYS multifamily buildings use lots of energy
- It was hard to get data from owners and managers
- Most had never looked at this data



Question 3: Why Did CPC Do a Different Rating?

- Separating Heating Usage, Hot Water Usage, Common Electric + Water Usage
- Again, buildings are all over the map
- CPC wanted to give you more accurate guidance for where your energy waste was
- An attempt to bring specific areas of waste to your attention



CPC Benchmarked 161 Buildings

- Usage was within the norm, some outliers
- In general, typically larger units



Question 4: Am I a Big or Little User?

- Again, you're all over the map
- Big users in water and hot water
- Some buildings big heating users
- Some buildings overall very good



Water Usage

- Just water in gallons
- Our average benchmarked building used 127 gals/apt/day
- City average is 175
- Our highest 259 gallons per day (610 ft²)
- That means \$966/apartment for water
- About a penny a gallon



Just Gas or Oil to Make Hot Water (Not Heat)

- Average building used about $\frac{1}{2}$ gallon of #2 oil per apt./day to make hot water
- About 30% less than typical NYC building
- Our highest used 1.15 gallons #2 oil per apartment per day (59% above City average)



Oil/Gas to heat buildings

- Typically 60% of fuel used in buildings
- Our average benchmarked building used $\frac{3}{4}$ gallon #2 oil/ft² for heat
- Right around city average, slightly lower
- Worst case benchmark was 1gal #2/ft²
- Worst we saw last year was twice that



Common Area Electricity Usage

- Again, all over the map
- Total usage in Kilowatt hours (kwh)/total ft²
- Only indicator we have at this time, until we can break out common area ft²
- Average 1.8; low .03; high 7.2 kwh/ft²
- Mostly an indicator of common space + lighting levels



Question 5: How do I go from a big to little user?

- This is the reason for breaking out heating, hot water, water, and common area electric
- There is a series of steps for each type of energy waste



High Water Usage?

- Leaks
- Toilets
- Showerheads
- Sink aerators
- Inefficient Washing Machines
- Weird individual building stuff



High Hot Water Heating Usage?

- All the stuff from the previous slide
- And your water is way too hot going upstairs
- You make water in your heating boiler rather than a separate system
- Your hot water heater is old and inefficient



High Heating Usage

- Your boiler is old, inefficient, and beat up
- Your controls are old and need to be upgraded
- Your buildings are leaky, particularly in basement, hallways, common areas, and roof
- Your building is overheated or out of balance, so.....
- Your tenants use the windows to regulate the heat



High Electric Usage

- Lighting: On when not needed, inefficient, or both
- Fire stair lighting on all day
- Outdoor lighting on all day or too long
- Unique things to your building that need closer analysis



Speaking of closer analysis.....

- Those buildings that were required to benchmark will soon be required to get full energy audits
- Local Law 87 (LL87) requires buildings to start completing audits by end of 2013
- Can be expensive if you don't shop around, but an overall objective energy analysis of your building worth \$\$\$\$\$



Question 6: Should I get off of #6 oil?

- For many reasons, YES!
- Dirty, inefficient, high maintenance
- Required to get off it in phases
- Most buildings can easily convert to #4, phase in #2
- Get gas if it is available
- Stay convertible though, at least dual fuel



Question 7, How do I pay for this?

- First, quantify the fix – how much will it cost?
- Sources of payment:
 - Cash flow from the building
 - Building reserve account
 - Stand alone financing
 - Supplemental financing to existing first mortgage
 - Refinance the property and wrap in at a low rate over a long term
 - Incentive: NYSERDA, Utilities, Weatherization



The CPC Green Initiative

- First Mortgage Financing
- Construction and permanent financing
 - Target Market - occupied multifamily properties
 - Benchmark the buildings
 - Identify the retrofit work scope
 - Finance the work with loan proceeds
 - Monitor the retrofits and measure the savings
- Create a “One Stop Shop” for retrofit financing
 - Fold in the public incentives
 - Make retrofit part of the standard mortgage process



The CPC Green Initiative

- Supplemental Mortgage Financing
- Loans in our existing portfolio
- Collect usage data – benchmark the building
- Identify the work scope
- Originate a co-first mortgage and amortize it over the remaining first mortgage term
- Close the new money and advance for the retrofit
- Adjust the monthly payment to include new debt
- Monitor the work and measure the savings



Incentives

- NYSERDA
- Utilities
- Weatherization Assistance Program
- City Programs, 8A, PLP, J-51
- Federal, State and City Tax incentives

131 residential units

- 46% reduction in gas usage
- 21% reduction in water usage





Some Lessons/Takeaways

- Read your Scorekeeping Card
- Look at where your building waste is
- Address low/no cost ways to reduce waste
- Put together a package of wish list items
- Include energy and water in your next refinance
- Get off of # 6 oil
- Refinance using CPC's Green Financing Initiative



Thank you.

QUESTIONS?