

HOW CAN

REDUCE CARBON EMISSIONS BY 30% AND ENTER NYSERDA'S MPP?

Convert from heavy heating oil to a cleaner fuel and upgrade your building's heating system:

Requires converting No. 6 heavy heating oil to No. 2 oil or natural gas under New York City Law LL43/10, which will result in significant reduction in emissions. Any alteration of a Boiler Room requires the owner to bring the boiler, oil tank and all associated equipment and controls up to current building code specifications.

Major projects like replacing a boiler and minor measures like insulating pipes can drastically reduce emissions 5-15% while making your building more comfortable.



Fig. 1 - The boiler room will be brought up to current Code requirements, including insulating all pipes greater than 3" in diameter.



Fig. 2 - The building uses one 1998 Rockmills boiler to heat both buildings.



Fig. 3 - Connecting the boiler to the other building through a window may not comply with NYC DOB Code.



Fig. 4 - Whether the building switches to No. 2 oil or natural gas. it will have to change the burner.



Fig. 7 - The oil tank must be brought up to current NYC DOB Code.



Fig. 5 - Upgrading the Heat Timer system can save energy and reduce carbon emissions by 5 - 15%.



Fig. 8 - Clean and pressure test the tank before introducing No. 2 oil, which acts as a solvent and lead to leaks.



Fig. 6 - Insulating hot water and steam pipes will save energy and reduce carbon emissions.



Fig. 9 - Insulating water and steam pipes and sealing holes in walls will reduce heat loss and carbon emissions.



Weatherize your building:

Installing better insulation, sealing leaks, or replacing windows will cut emissions 3 to 10% by preventing your building from losing heat.



Fig. 10 - Consider replacing windows or sealing them to reduce heat loss.



Fig. 13 - Seal through-the-wall air conditioning sleeves. Insulate unused sleeves.





Fig. 19 - Replace window to reduce



Fig. 11 - Seal through-the-wall A/C sleeves. Insulate unused sleeves.



Fig. 14 - Replace garage window to reduce heat loss from DHW pipes overhead.



Fig. 17 - Weatherize exterior doors.



Fig. 20 - Insulate & seal A/C sleeves.



Fig. 12 - Seal exterior wall penetrations to reduce heat loss.



Fig. 15 - Weatherize exterior doors to reduce heat loss.



Fig. 18 - Radiator in foyer wastes heat.



Fig. 21 - Weatherize exterior doors.

5



stack effect.

Improve Operations and Maintenance:

Tuning up your building's systems and conducting building staff training can significantly reduce your building's emissions with little of no capital cost.

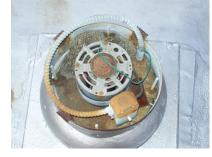


Fig. 22 - This roof top exhaust fan for kitchens and bathrooms was not functioning and had a wasp's nest inside it.



Fig. 23 - Test for adequate air flow in air vents in halls and apartments.



Fig. 24 - Test for adequate air flow in air vents in halls and apartments.



Fig. 25 - Insulate hot water and steam pipes in garage.



Fig. 28 - Reposition dryer air vents through the wall and seal all penetrations. The above throughthe-window method causes heat loss.



Fig. 26 - Eliminate water leaks in garage.



Fig. 29 - Insulate all hot water and steam pipes.



Fig. 27 - Test for adequate air flow in air vents in halls and apartments.



Fig. 30 - Insulate all hot water and steam pipes.



energy efficiency retrofit consulting for multifamily and commercial buildings

Upgrade common area lighting:

Upgrading to energy efficient lighting and installing sensors to shut off lights when no one is in a room or when there is plenty of daylight will cut emissions 15 to 30% and often pay for themselves in two years or less



Fig. 31 - Lighting levels might be reduced during intense daylight.



Fig. 32 - Install sensor to avoid having outdoor light on 24/7.





Fig. 33 - Hall light is on when there is sufficient daylight to light the area.

Fig. 34 - Consider LEDs to further reduce lighting electrical consumption. Consider lowering lighting levels where acceptable.

NYSERDA Multifamily Performance Program - Financing at about half the market rate

Financing for multifamily energy upgrades is more affordable through Green Jobs - Green NY, which advances 50 percent of the principal borrowed directly to your lender at an interest rate of 0%, effectively reducing the cost of your loan (up to \$1 million) to about half the market rate. Green Jobs - Green NY can contribute up to \$5,000 per unit or up to \$500,000 per project. For example, a market rate loan at 6% could be at 3% if you were accepted into the Multifamily Performance Program.

| Existing Buildings - Maximum Incentives | | | | Additional Performance Payment | |
|---|--------------------------------|-------------------------------|--------------------------------|--------------------------------|-------------------------------|
| Project Type | Firm Gas (per unit) | Non-Firm Gas (per unit) | 100 Belmont & 101 DLT | Tier P | erformance Payment (per unit) |
| | | | | Tier #1 - 20%-22% | \$150 |
| Affordable | \$1,000 | \$800 | | Tier #2 - 23%-25% | \$200 |
| Market Rate | \$700 (with gas conversion) | \$500 (with No. 2 oil) | \$78,400 or \$56,000 | Tier #3 - 26%-28% | \$250 |
| | | | 100,000 | Tier #4 - 29%+ | \$300 |