

## Simple technology, so many benefits



**Sherry  
Rivera**

There is a great deal of talk about energy efficiency, retrofiting, retro-commissioning, Local Law 87 and a myriad of terms people are bandying around. It can be overwhelming. I have selected one simple thing you can do without having a consultant or having to replace such things as your boiler or HVAC system which results in a number of positive outcomes. This requires no replacement of existing equipment that is otherwise functioning well.

Your HVAC system is probably not operating at its initial specified “as built” performance level, meaning it is not doing the job you installed it to do the way it is supposed to. Thus the operation of this unit is costing you more than necessary. It is a large part of the building’s energy usage so you are not only paying a lot for your electricity but are wasting it as well. The DOE says, “The HVAC system accounts for 40-60% of the energy used in U.S. commercial and residential buildings. This represents an opportunity for energy savings using proven technologies and design concepts.” Your HVAC is not doing these things because it is old or has some years on it. Its performance does not need to degrade with time. You simply need to be aware of what is slowing it down and what it needs to perk it up.

That is the secret. An air handler’s cooling coil is a dark and moist area making it a perfect place for mold to grow and accumulate creating a thick layer on the coil almost as if the fins of the coil have a sweater on them. Therefore they do not get as cold as they should and the path of the cold air is impeded. The thicker the “sweater” the harder the fan blowing the air through the system has to work using more electricity, and the longer your air handler cycles are to achieve the desired temperature. If you could get rid of that “sweater” with the disgusting mold and dirt clinging to the fins, the fans would not have to work as hard, and the cycles of the handler would be shortened all contributing to a reduction of electricity required to run that system.

A simple properly sized installation of good UV lamps will accomplish this. They are placed on the downstream side of the coil. Within months the system will be operating close to or at its initial efficiency rating. There are added bonuses as well. If you were cleaning your coils now, you will no longer have the expense of the manpower, chemicals, and downtime of this process. The mold will be eliminated and none of the spores can break off and pass through the ducts to the air stream where you and the occupants of the building were having a daily dose of mold spores. This will no longer be possible. Employees with allergies, asthma and other respiratory ailments may be relieved of symptoms with the elimination of this “sweater.” The air quality in the building will be improved as many of the viruses and other pathogens that get recirculated through the air handler will also be incapacitated by the UV dose.

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## Time to focus on LL 87 compliance – again



**George  
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It’s year two in the Local Law 87 cycle and it’s time for “covered buildings” on blocks ending with the number “4” to focus on getting started with their energy audits and retro-commissioning requirements. There are some “lessons learned” from covered buildings that unknowingly failed to comply last year and were unpleasantly surprised to receive \$3,000 fines. These are buildings located on block numbers ending in a “3” and failed to have their energy audits and retro-commissioning reports filed in 2013. Those “2013” buildings that failed to file, must

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now have their audits and retro-commissioning reports completed and filed as soon as possible and pay their \$3,000 fines. For “2013” buildings that did not file in 2013 and then do not file in 2014, they will be faced with their initial \$3,000 fine, plus an additional \$5,000 fine and will still need to file their LL 87 reports to meet compliance requirements. DOB has indicated that they will take a hard line regarding any “failure-to-file” excuses.

Local Law 87 requires periodic energy audits and retro-commissioning for virtually all buildings in New York City that are 50,000 s/f or larger – “covered buildings.” This requirement includes all types of buildings, including commercial, residential and not-for-profit – such as churches and schools. City-owned buildings must comply as well. The timing for “covered buildings” to have their energy audits and retro-commissioning completed and filed is based on the ending number of the block on which each building is located. Covered buildings located on blocks ending in the number “3” were required to file in 2013, buildings on blocks ending in “4” are required to file in 2014, “5” in 2015 and so on.

Note that LL 87 isn’t all about fines and fees. There are some very positive aspects, cash positive aspects, to LL 87 compliance that can result in the reduction of energy related costs. These cost savings will generally offset the costs of compliance. The LL 87 audit reports will contain a detailed schedule of suggested energy saving measures, that when implemented, will translate into reduced expenses. Savings from reduced expenses are not a “one time” cost reduction. These savings continue year after year and can represent significant dollars. Additionally, there is funding available from Con Ed and NYSERDA to help offset upfront costs of implementation. Focus now on your LL 87 compliance, but be sure to make it cash positive.

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