Above and beyond Local Law 84: Gearing up for Local Law 87

Chris Cayten

By now most N.Y.C. building owners have completed the Energy Benchmarking process and submitted their buildings' scores to the city to comply with Local Law 84. N.Y.C. even extended the deadline for submission from May 1st to August 1st to give building owners more time to complete the process, which can be confusing and time-consuming. For those building owners out there who have not complied yet, there is still time. Go to www.nyc.gov/GGBP to get started.

Most building owners who have completed the benchmarking process have the same two questions: 1.What does this score mean? and 2. How can I raise it before it is made public? Answer #1 - The score is a 1-100 percentile ranking of the building's energy efficiency compared to a nationwide pool of similar buildings and is normalized for weather. Benchmark Scores for non-residential buildings will be posted online in 2012, and residential buildings in 2013.

Answering question #2 is more difficult, but the city has made the decision on where to start easier by requiring owners of buildings over 50,000 s/f to file an Energy Efficiency Report (EER) with the city to comply with Local Law 87. To complete the Energy Efficiency Report, a building owner must complete an ASHRAE Level 2 Energy Audit and Retro-Commissioning (RCx) of the building's base mechanical systems including HVAC, hot water, vertical transportation, lighting and building envelope. The audit and RCx identify potential Energy Conservation Measures (ECMs) that may be implemented by building owners to reduce energy consumption and save money. Local Law 87 requires that the Audit and RCx be performed every 10 years. The filing deadline for each building in N.Y.C. is based on the building's block number, but all buildings are eligible to perform the work now and file the EER in 2013 to take advantage of simpler filing requirements and available NYSERDA funding. Currently, the New York State Energy Research and Development Authority (NYSERDA) is offering a 50% rebate on the cost of ASHRAE Level 2 Energy Audits and Retro-Commissioning. This can mean big savings for building owners who perform work now to be filed in 2013.

Performing energy audits and retro-commissioning and implementing ECMs are the best way to improve a building's Energy Star Score, but scores do not improve overnight. Implemented measures take a few months to increase a building's score, so if you want to improve your building's score before it is published in 2012 and want to take advantage of the current 50% NYSERDA rebate you need to begin the Audit and RCx right away.

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Trust but verify: MBCx enhances sustainability

Timothy Angerame

The application of LEED certification in property development has taken off dramatically in recent years, driven by the desire to create a differential advantage in a competitive real estate market and the need to keep operating expenses in check. LEED certified buildings often are said to have the ability to save water and use less electricity while improving occupant comfort and well-being through improved indoor air quality.

This may well be true, though it has been difficult to verify and there are no stipulations in place to ensure that a LEED certified building operates in an energy-efficient manner once it is occupied.

It is common knowledge that buildings rarely perform as intended. Even LEED Gold buildings will experience equipment variables that result in diminished energy efficiency. The reasons why buildings typically do not perform as planned might include poor control of chilled water distribution to air handlers, unnecessary chiller operation, or poor VAV zone control. That's why monitoring-based commissioning (MBCx) is beginning to emerge as an important new approach to keep buildings operating at maximum energy-efficiency.

MBCx incorporates three components: permanent energy information systems and diagnostic tools at the whole-building and sub-system level; retro-commissioning based on the data this generates; and on going commissioning that ensures efficient building operations and measurement-based savings accounting.

Requiring minimal capital investment, a comprehensive MBCx program can bring about substantial and consistent energy savings. For example, utiliVisor provides a web-based, networked solution, built on open standards, that works in real time and defined timeframe increments to collect and format data, monitor operations and equipment errors, and deliver oversight via web-based alerts and alarms. Based on the data it provides, engineers are able to track performance and remedy any malfunctions that would otherwise create operational inefficiencies. The ability to optimize the complete energy system results in lower energy costs.

A recent study prepared for the California Energy Commission by Lawrence Berkeley National Laboratory stated: "On a portfolio basis we find MBCx to be a highly cost-effective means of obtaining significant portfolio/program-level energy savings across a variety of building types." For building owners and managers who have made a significant investment in sustainable practices and LEED certification, MBCx offers a viable way to protect that investment over the life cycle of a building. It is an important risk-management strategy leading to verifiable and durable energy demand reductions for any property.

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