



New Year's resolution: Sustainable performance and green bldg. operation

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Another year is almost over, and the Superstorm Sandy experience we all shared will have made it all the more memorable. As a community, we now have a new awareness for systems, operations, electrical and heating loads. Building on that momentum and renewed insight, we have a variety of local laws and mandates to comply with that revolve around energy awareness, greenhouse gas emissions and efficiency. These regulations (Local law 43, 84, 87, 88, etc.) and their impacts will continue for years to come. Building benchmarking and public disclosure of this data will provide awareness of building operations and make them visible to all via the Internet with a click of a mouse.

We can look at these mandates from a "compliance only" perspective, or we might say what we can do to make our buildings operate more efficiently into the future. The opportunity to meet these compliance requirements and reduce our energy consumption costs and improve the indoor/outdoor environments simultaneously is possible if we take a holistic approach.

This all starts with data, analysis, actionable info and feedback. Across the city, there are many clean tech startup companies building "cloud" platforms that utilize building information from numerous public databases viewable in a web browser. One example is HonestBuildings.com, who have at least 780,000 buildings across the U.S. in its database. Type in your address and, in an instant, you might be surprised what is known by everyone about your building.

One of the most tedious and time-consuming steps is collecting utility data. Looking at our utility bills on an annual basis won't be enough to allow our buildings to approach and continue to operate more efficiently. We will need to do that on a monthly, daily, hourly and minute-by-minute basis. This typically will require new, costly, metering systems operating parallel to utility company meters installed by building owners. It would be a better solution if our utility companies provided this data to us via the Internet, and would allow simultaneous knowledge of the status of the entire grid down to the street and building level.

Continuous feedback with weather corrections can tell us if we are doing better or worse with a simple dial showing how we are approaching our sustainable goals. They will also be able to tell us how similar buildings are performing currently, identify incentives, and track the results of operations and maintenance or energy efficiency/renewable energy projects. With more available data and documented, verified, results, more money will be made available for this work from the financial markets.

Welcome to 2013, the year when "cloud based" sustainable high performance buildings finally takes off.

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