The Value of Macro Level Performance Metrics

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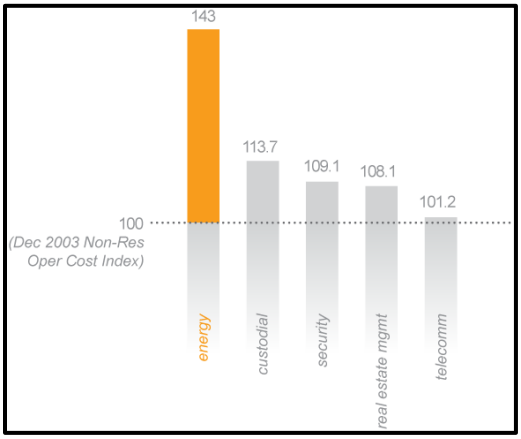
We know about the opportunity to save energy in our existing buildings. We have heard about how using real time energy use data can help save energy. I'd like to talk to you about how using macro level energy and water use and expense data will help the owners and managers of existing buildings find, track, and prove savings.

The ultimate decision driver for building owners is expense and profit. Minimizing the expenses required to operate a building will drive increased profits for the individual or company who uses that building to do business.



Energy is the single largest operating expense for buildings, and has grown 33% faster than other operating expenses since 2003 (Whitestone Research/DOE). The 5 million existing commercial buildings in the United States spend $200 billion per year on energy expense, yet only 5% currently track and manage their energy use and expense. Why is this? The data is complex and not easy to obtain, organize and track, much less translate it to derive insights that lead to actions to reduce expense.

Macro level performance metrics use data already available for all existing buildings – utility bills. Utility data is the simplest common denominator across all buildings for cost, use and carbon intelligence. Plus, utility data is the basis for the EPA's national benchmark – Energy Star.

However, while this data is readily available at no additional cost to building owners, it is complex, hard to navigate, and most people don't understand their utility bill. The average building is supplied energy and water by at least two to three separate utility companies who report use and expense differently. If an owner tracks use and expense from their utility bills, over 1,000 data entries need to be made in one year to record and normalize the data for just one building. For one building, or a portfolio of many buildings, this is a cumbersome, daunting task that typically does not get done. When it is done manually or internally it is hard to maintain accuracy and usability of the information.

Real time energy use data can also be a good way to track energy use in buildings, but has some wrinkles that limit its applicability to many buildings:

- Less than 5% of existing buildings have a building automation system with real time monitoring
- The cost is high for the 90% of existing buildings that are under 25,000 square feet in size

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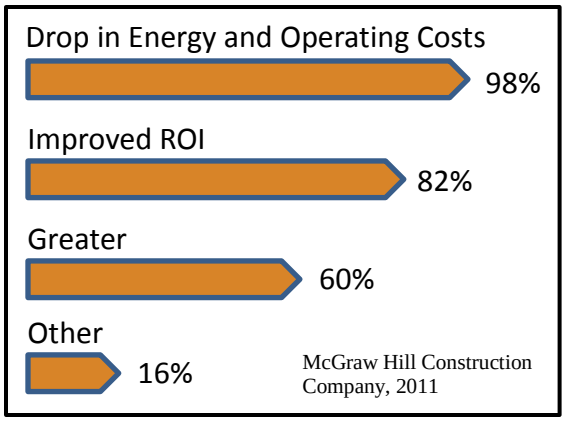
- It requires a full-time engineer
- It doesn't reconcile energy and water expense to budget dollars
- Many real estate portfolios have tens or hundreds of buildings – where should the owner start in terms of implementing real time monitoring given the cost?
- Financial decision makers want dollar metrics they can justify

Benchmarking and understanding energy use with utility data can cost only pennies per square foot, compared to real time monitoring costs of up to $0.50 per square foot or installation of a building automation system at a cost range of a little under $1.00 up to almost $5.00 per square foot. For owners with multiple buildings in their portfolios, it is more cost effective to first understand their buildings' energy use and expense using lower cost utility data benchmarking and analysis.

A 2011 survey of companies by McGraw-Hill Construction found that 78% were planning energy efficiency upgrades to their buildings in the next two years, driven by the goals of a drop in energy and operating costs and improved ROI.



Macro level performance metrics, provided using utility data, are a cost effective and smart first step that will enable building owners and managers to answer four key business questions about their buildings:

1. How are my buildings doing?
2. Is my energy and water use getting better or worse?
3. Where are my opportunities for savings?
4. Have my past energy and water improvements paid off?

This macro level analysis helps building owners and managers understand where deeper, more specific analysis is needed – and is the first step to engage the help of mechanical systems contractors, consultants, and real time energy monitoring. It is critical to understand the macro trends so solutions can be selected and implemented to return the greatest savings.

EnergyPrint would be happy to help you with using your utility data to develop macro level performance metrics for your building(s). Please visit www.energyprint.com, or call us today at 1-866-259-6869.

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