How to Achieve High Performance Buildings for Bottom Line Results

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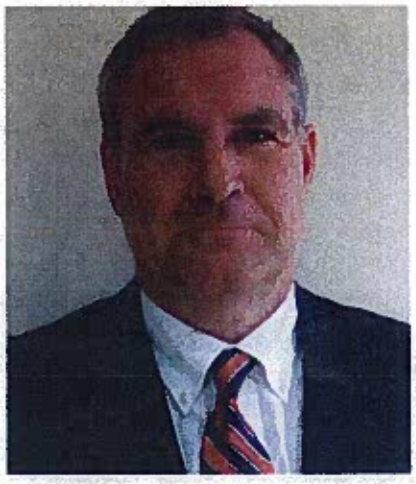

Building owners have a unique opportunity to ensure that their buildings achieve high performance and help impact the bottom line in a positive way. It is a fact that one-third of a building's energy consumption is related to the heating, ventilation and air-conditioning systems. A 10% savings of these costs could go a long way in helping your bottom line in today's economic environment.

Here's how building owners can achieve high-performance objectives to improve energy and cost efficiencies while providing a more comfortable, more productive environment for occupants.

Checklists

Typical maintenance involves going through a fixed schedule task checklist. In contrast, the high-performance approach focuses not on calendar-driven tasks but on desired high performance outcomes. This offers the opportunity to redefine building conditions and optimal performance of systems and equipment.

Specialists

To start, work with a building systems specialist to conduct a review of building and operational goals, and carry out a diagnostic or analytical evaluation that targets existing and potential trouble spots or "gaps" that could prevent companies from achieving their primary business goals. This evaluation could serve as a baseline analysis and the starting point for a continuous commissioning program, which is a regularly performed validation of system performance to assure it meets all design standards and specifications. In new buildings, this typically begins in the design phase – and ideally continues through the building's lifetime.

Audit

Conduct an energy audit to evaluate a building's HVAC load, lighting and water usage, and the building's entire baseline utility consumption. This audit will help target areas to improve performance and conserve energy.

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Evaluate

Evaluate where energy is being used, perhaps excessively, where maintenance or repairs may be necessary and where it might be necessary to consider capital investments to improve energy efficiency or performance. Also take a look at system operating schedules or scheduled building activities and look for other opportunities to cut, consolidate, use and conserve energy.

Adjust

Adjust and evaluate performance of building controls for maximum energy savings. Integrate building comfort with efficiency by coordinating lighting and HVAC systems use with building operating hours and event schedules. Doing so can reduce maintenance time and lower utility costs through monitoring and performing regular system diagnostics. Evaluate the capabilities of current unit controllers and building management system components. Often a few simple upgrades can have a significant impact on overall energy usage.

Check-ups

Conduct monthly checkups to assure high performance with clear energy consumption objectives. This can be easily done with a performance-defining outcome checklist that determines the activities required to assure sustained, design performance.

Multiple Energy Sources

Evaluate savings opportunities by heating with multiple fuel sources. Often you can realize utility savings through reduced energy rates by heating with multiple energy sources such as electric, gas, oil and propane. Flexibility in heating energy choices allows building owners to heat with the most cost-effective fuel source.

Negotiate

Negotiate competitive rates via new procurement processes. Research competitive agreements with retail power and gas marketers, also known as "ESCOs," to take advantage of post-peak energy prices. Keep the building's load demand as level as possible because lower daily peaks reduce demand, which results in more favorable pricing. In non-regulated areas, many electric utilities offer lower rates during off-peak periods, often at night. Perform a complete rate analysis on all utility meters and take advantage of diminishing non-critical loads at peak periods to prevent temporary electrical demands from creating higher annual energy bills.

Maintenance

Performance-based maintenance improves system reliability and reduces risk and owner cost by assuring a full and productive life to systems; offers the convenience of planning when work should be done; reduces unplanned downtime and productivity losses due to unexpected and costly component or equipment failure; and reduces potential negative environmental impacts, such as refrigerant or oil leaks.

With the economy in a constant spotlight and your company's bottom line under a consequent microscope, efficiently managing your building's seasonal changeover is more important to organizational business objectives than it has been in nearly a decade.

You may never have a better opportunity – or a more captive audience.
For more information, contact: Kristin Kubicki, TRANE New York – New Jersey, at phone 973-434-2136 or email: KKubicki@trane.com.

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