

Utilities Manager: Challenge The “Rear-View Mirror” Approach To Energy Management

Written by Christopher Russell, Principal, South River Facility Management
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We're all familiar with the monthly budget review meeting. This is when the general manager sits down with department heads to compare the latest month's financial results to the organization's operating budget. A common, well-intentioned business habit, it also has the potential to be quite damaging. That's because the actual-to-budget review process focuses on the past at the expense of the future. Much like trying to steer a car by looking in the rear-view mirror, it is a big reason why organizations often fail to take meaningful control of their energy costs.

While the organization as a whole attempts to make money, department directors are primarily concerned with spending money for materials, labor, utilities, support services and the like. The monthly budget review is a discussion of variances—*particularly those instances where spending is on a pace to exhaust funds before the end of the fiscal year*. Top management provides annual performance incentives that focus on this year's budget outcomes, not those of future years. Thus, a preoccupation with this year's budget may be at the expense of potential savings that can accrue for years to come.

While history typically provides useful insight, it also can obscure future potential. Consider the following “rear-view mirror” approach to moving forward.

Let's say a facility has yet to adopt energy-efficient technologies, behaviors and procedures. This means that it habitually buys more energy than is actually needed, because waste is built into its operations. The budget account for energy, then, is inflated to accommodate these inefficiencies. For example, energy losses add up to about 40% of the total energy delivered to U.S. manufacturing facilities as a whole. Stated differently, the typical manufacturing facility must inflate its energy procurement budget by a factor approaching two-thirds to account for energy that is both used and wasted.

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A possible solution

Break down annual energy expenses into two separate line items. One represents the value of energy that actually will be applied to perform useful work. The second line item represents energy that will be wasted. How do you allocate energy expenditures into these categories? The answer is to conduct an energy audit that thoroughly evaluates energy inputs, uses, losses and potential consumption improvements. While industry averages are generally helpful, the most reliable indication of any single facility’s energy flow depends on a proper energy audit—*the more thorough the better*

. Without distinguishing between energy applied and energy wasted, department directors often conclude that they “don’t have the money for energy improvements.”

The account for energy waste (a budget artifact directly related to past performance) is, in reality, an account from which energy improvements should be budgeted. The energy waste line item also brings attention and urgency to the issue at each and every monthly budget review.

Managers can use the “energy waste” account to either MAKE energy savings or BUY energy that ends up being wasted. Dollars from the “energy waste” account are devoted to energy improvement projects when the cost to save a unit of energy is less than its purchase price per unit. This is one line item that actually forces managers to look forward, and not in the rear-view mirror, when planning energy consumption. **UM**

Updated weekly, Christopher Russell’s energy management blog can be found at <http://energy.pathfinder.blogspot.com>