

Vol. 04

“Real or Fuzzy Dollars: The Portfolio Approach to Energy Management”

One of the hottest-selling consulting services available to industry is anything that improves tax performance. That’s because companies can realize a lot of tax savings with good administrative control of their own tax information. But for a variety of reasons, industry is far less interested in controlling energy costs through energy management.

Why? It’s all about perception.

Corporate managers like the idea of saving dollars with the stroke of a pen. Dollars saved this way are instant and unconditional. They think of these dollars as “real.” The bias for “real” dollars leads executives to think of fuel prices—and not consumption—as the key to energy cost control. To them, dollars from consumption efficiencies are simply too “fuzzy.”

Executives are right to conclude that the financial results of proposed energy improvements are subject to a wide variety of intervening factors. But they are wrong to dismiss energy improvements as an opportunity to perform business performance.

Think about portfolio investment theory. Most people understand the fundamental rules of investment: Don’t put all your eggs in one basket, and contribute consistently to your investment accounts. A business plan for improving energy efficiency works the same way. Active assets generate more value than dormant assets. Growth requires reinvestment of earnings. The diversification of assets will offset risk. Regular monitoring of asset performance allows investors to reallocate assets in response to changing market conditions. This digression into investment strategy is to make a point—a business plan for industrial energy management is remarkably similar to financial planning:

- Identify goals;
- Select the investments needed to reach the goals;
- Establish a blueprint and strategy for goal attainment;
- Start early, if only with small efforts;
- Maintain regular contributions over time;
- Keep track of earnings; and
- Defeat risk through reinvestment and diversification of earnings.

Here, “diversification” means expanding beyond one-time energy projects to make energy management part of standard operating procedures, bumper to bumper, throughout the organization. The financial and energy planning analogies share the same result—the growth and preservation of wealth.

Just as a stock portfolio's performance is less volatile than its individual stock components, a well-balanced energy management plan provides consistent savings. An investment advisor may recommend the purchase of Microsoft stock. But that doesn't mean an entire portfolio should be made up of that one stock. Similarly, a steam trap testing program or an insulation retrofit is each a valuable pursuit, but each one by itself does not constitute an energy management program. Energy management creates wealth when activities are prioritized and backed by goals and disciplined action plans. Activities are sequenced so savings pay for additional rounds of activity.

Energy management usually provides savings from a number of sources: (1) reduced fuel use; (2) reconciliation of errors in utility bills; (3) using consumption information to negotiate better fuel purchase contracts; and (4) reduced waste of raw materials, attributable to the enhanced precision of energy use. In addition to savings, many manufacturers enjoy the additional revenue generated from current assets when energy waste is captured and redirected back into process activities.

What financial results can a company expect from energy management? Industry surveys indicate that the average plant can reduce its energy consumption by 10 to 20 percent, largely from procedural and behavioral changes (Griffin, 2004; DOE-EERE, 2002). The cost of sustaining an energy management program (operations and maintenance costs only, omitting capital expense) is around 1 to 2 percent of total energy expenditures. Companies are doing this every day. See some case studies online at <http://www.ase.org/section/topic/industry/corporate/pathfinding/>.

Fuel purchasing mechanisms are necessary, but they are only a partial solution to rising energy expenses. Energy efficiency in the form of behaviors, procedures, and applied technologies represent the balance of savings potential. An energy management plan—like any good savings plan—relies on disciplined action to build wealth.

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