



# Connecting the Dots

## Wasted energy everywhere

Commercial buildings in this country continue to waste a third of the energy they consume, because, all too often, worthwhile energy initiatives fail to capture the senior management attention and capital they deserve. One of my favorite mentors, a quirky and successful entrepreneur with a flair for colorful expressions, summed it up, "Don't expect to see turnips grow if you plant M&Ms!" She could have just as easily warned, "Don't expect to see energy costs under control if efficiency doesn't grab senior management's attention!"

The U.S. Environmental Protection Agency (EPA) has found that Energy Star-labeled office buildings using commercially available technologies and related best practices use 35% less energy than an average building. Other studies show that simply commissioning a building's systems to operate properly can reduce energy use by 5 to 15%. Energy prices have been on the rise for the last half dozen years; still, demand for energy is outstripping capacity. This year utilities and other agencies will offer more than \$1.5 billion to support energy efficiency and renewable energy, with more programs on the way.

Fortunately, some organizations have taken their commitment to energy efficiency seriously, with proven results. They benchmark their buildings' energy performance monthly. They commission both new and existing buildings to make sure that energy-related systems are operating efficiently and maintained properly. They develop documentation that describes each building system, and they use those materials to train their engineering staff. They use continuous monitoring to ensure that savings persist.

As a result, the energy performance of their buildings' ranks at the top end of the scale. Their operating profits are higher, their

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employees are more productive, and they enjoy higher rates of tenant satisfaction and retention. Perhaps most important, they provide an example of what is possible when organizations focus attention and capital on proactively managing their energy use.

It all comes down to priorities: How significant is the energy line item to senior management? Even in income-producing office buildings, where energy typically comprises 30% of operating expenses, energy efficiency probably won't get the attention it deserves if the landlord assumes that utility costs (and savings) are simply passed-through to the tenants. Energy efficiency won't happen if the organization doesn't make it a priority.

Experience shows that having a knowledgeable and motivated internal champion is the key to most successful energy-efficiency initiatives. It could be the chief financial officer (CFO) who realizes that embracing sustainable building practices would lower life-cycle costs, improve employee productivity, or give an income property a competitive advantage in attracting tenants.

Or it could be a detail-oriented property manager who notices that a model lease form allows the owner to assess tenants for any capital costs that lower operating expenses. It could even be a forward-thinking energy manager who realizes that reversing a half dozen years of increases

in corporate energy costs would be a fast track to performance bonuses and career advancement.

The most successful internal champions are great at "connecting the dots," an especially daunting task considering the pace of change in the energy industry these days. For example, the accounting department may report that the company's electricity costs are 9% higher than last year. The energy champion steps back and calculates that over the last three years, his company's energy costs have actually risen by 35%. The champion also notes that every time a state price cap expires, facilities in those states become vulnerable to additional increases.

Assembling those data points—and emphasizing how they impact senior management's goals and objectives—increases the chances of making energy a top priority. It's certainly a more compelling approach than simply citing the 9% increase in energy costs over last year. And, unfortunately, sometimes it takes a 35% increase in energy costs for the CFO to approve a campaign to reduce energy use by the same percentage.

Energy managers should leverage important price and incentive trends as they compete for their fair share of management bandwidth and capital. Electricity, oil, and natural gas prices have all risen sharply in recent years. A project that didn't meet the corporate hurdle rate last year might very well exceed it this year. At the same time, rebates and incentives are surging as utilities across the country react to capacity constraints and ratepayer backlash. The more utilities that offer programs, the higher the probability that a project will be located in a rebate-friendly area.

The Energy Policy Act of 2005 features new tax deductions and credits to help make energy efficiency and renewable energy more



affordable. Pursuing energy efficiency that exceeds code increases eligibility for these tax benefits while lowering life-cycle costs.

Global warming and other environmental issues continue to dominate the press. Sustainable building practices and renewables are increasingly associated with good corporate stewardship.

Energy performance benchmarking is now the norm. Last year more than 2,500 buildings totaling 482 million square feet received the Energy Star label. For a senior manager who erroneously thinks that company buildings are already energy-efficient benchmarking can be a real wake-up call. Retro-commissioning, retrofits, and demand reduction are converging. Buildings configured and operated accordingly should enjoy dramatically lower energy costs going forward.

Indeed, the most forward-thinking organizations are fundamentally changing the way buildings are operated, yielding benefits that go far beyond saving energy. Thomas Properties Group, for example, actually switched to daytime janitorial service for the Cal/EPA headquarters building in Sacramento, the nation's first high-rise building to achieve the LEED Platinum certification. Having the house-keeping staff in the building during the day instead of at night has

reduced not only energy costs, but also janitorial complaints, theft reports, and injury claims.

Understanding the financial impacts of these converging trends can help get projects approved, especially for cutting-edge technologies. In certain states, for example, the combination of sharply higher utility rates, generous rebates, tax benefits, and renewable energy credits now makes building-integrated photovoltaic (BIPV) roofing more attractive than conventional roofing on a life-cycle cost basis.

Showcasing trends such as these can help energy managers reframe energy efficiency so that it captures the attention of senior management. Without that focus, even the most worthwhile energy initiatives will continue to languish unapproved. *e&pm*

**About the Author:** Bringing the perspective that comes with over 20 years in commercial real estate and 12 years in energy efficiency, **Mark Jewell**, founder and President of RealWinWin ([mjewell@realwinwin.com](mailto:mjewell@realwinwin.com)), is a national expert on the role of energy-efficiency economics in commercial real estate.

**REPRINTS OF THIS ARTICLE** are available by contacting Jill DeVries at [devries@bnpmedia.com](mailto:devries@bnpmedia.com) or at 248-244-1726.