Energy Efficiency's Effect on Building Valuation

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Did you know that energy use is many times the largest single line item on an expense statement, according to Schneider Electric?

Because of its potential impact, reducing energy use not only helps lower operating expenses, but it can also increase commercial building valuation. As energy efficiency increases, so can a building's asset value. By saving energy, net operating income increases (thanks to higher rents, improved occupancy rates, and lower operating expenses). According to the Institute of Building Efficiency, green buildings experience an average net operating income that's 5.9% higher than a traditional building.

According to the U.S. Department of Energy (DOE), commercial buildings waste an average 30% of the energy being paid for. The latest figures, which were published in 2007, estimate that to be $60.7 billion. In an example from U.S. DOE, $60.7 billion of wasted energy expenses represent $750 billion in asset value at an 8% capitalization rate. In a 200,000-square-foot office building with energy costs of $2 per square foot, a 10% reduction translates to $40,000 in additional net operating income. With the 8% capitalization rate referenced earlier, that new net operating income becomes a building valuation increase of $500,000.

Another example of increased building valuation as a result of green upgrades: As part of the Better Building Case Competition, college students worked with Cassidy Turley to develop real-world energy-efficiency solutions for commercial buildings. As a case study, the team implemented energy upgrades on a 12-story, 300,000-square-foot facility built in New York City in 1963. These upgrades save up to 5,204 MMBtu per year (or $520,000 annually). Most of the upgrades also had a payback period of less than five years. The energy conservation measures, along with LEED certification, provided a projected 12% jump in building valuation for the owner. An increased valuation is part of why the building owners agreed to spend money on green upgrades; they looked beyond ROI and saw potential to increase their building's asset value.

Lighting accounts for the second or even the largest electrical energy load in most commercial and public buildings. Today's latest generation of smart lighting control solutions have both lowered the cost of acquisition of such and on-going operations and maintenance costs. Such solutions now enable wider adoption offering building owners, developers, managers and users to achieve significant energy savings, according to the lighting industry such as the Lighting Controls Association, independent market research such as IMS Research and detailed analysis by Lawrence Berkeley National Laboratory and posted by GSA.

Then there is the issue of parasitic power consumption. This is the hidden electrical power consumed by the control systems components, such as LED drivers, Fluorescent ballasts, sensors, switches, room controllers etc. even when they are OFF and nothing is happening in the space being controlled. The Carbon Trust and others highlight this issue click here and see page 18, other web research talks about total parasitic power consumption in buildings of being as much as 10% of total electrical load. The latest low power wireless devices based upon wireless technology such as EnOcean enables self-powered batteryless devices such as switches and sensors to be deployed helping to reduce this parasitic power as well as maintenance costs.
Some of the most recent smart building control solutions including intelligent lighting not only allow individual light fixture communication and control but also require much less hardware between the light fixture and the user/owner reducing parasitic power consumption.

There are many financial incentives and opportunities to fund such solutions in part or sometimes entirely according to David Deshotels, CEO, Cost Segregation Services Inc, what David describes as "pulling Dollars out of a buildings fabric the owner never realized were there".

If you're facing an upcoming commercial property valuation, it can help to explain some of the benefits of a sustainable building to appraisers. Real Property Analytics says the field of appraising green buildings is still relatively new, and providing hard data to appraisers can prove helpful. It's also important that appraisers understand which characteristics of green buildings accrue to the tenant vs. the building owner.

After making green upgrades, in particular with regards adding lighting controls irrespective of the type of light fitting i.e., from LED to Fluorescent, have you had your building's asset value appraised? What were your experiences and what were the results? Let us know by clicking here.