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Although Careful Consideration Is Required, Investing in Retrofits Is a Sound Financial Decision. Here's why.

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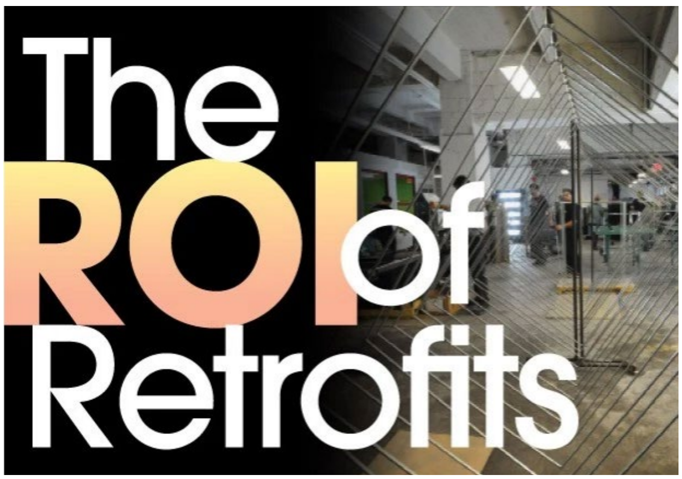

Renowned self-made billionaire Warren Buffett once said of investing, "Risk comes from not knowing what you're doing." When it comes to spending capital on building retrofits, the same rule may apply, but the opportunities are ripe for those who understand the value of upgrading their real-estate portfolio.

The projected scale of investment opportunities in energy-efficiency building retrofits globally is significant, varying between $231 billion and up to $300 billion annually by 2020, and is supported by a robust business case, according to a 2014 United Nations Environment Programme Finance Initiative (UNEP FI) report, "Commercial Buildings: Unlocking the energy efficiency retrofit investment opportunity". Building owners and property managers considering investments in retrofits to their existing building stock can do so with confidence; academic and market research indicate the business case for these financial decisions is strong.

Consider a few of the following statistics from the UNEP FI report:

Research indicates recommissioning existing buildings can result in a 16 percent median whole-building energy savings with a 1.1-year payback and a 91 percent cash-on-cash return.
Investing in a 30 percent improvement in building efficiency has an internal rate of return of 28.6 percent over a 10-year period.
A study of buildings in Singapore reveals the resulting energy savings of a sample of buildings is 17 percent post-retrofit. Similarly, private U.S. real estate firm Transwestern reports typical savings of 3 to 15 percent on the utility bills of its managed properties that have undergone energy-performance upgrades.

Buildings with the ENERGY STAR label have significantly stronger financial performance than similar unlabeled buildings: 13.5 percent higher market values, 10 percent lower utility costs, 5.9 percent higher net income per square foot, 4.8 percent higher rents and 1 percent higher occupancy rates.

As with any investment, however, there are numerous considerations to weigh, including the amount of capital available, payback threshold, scale of the retrofit, as well as tax incentives, to name a few. retrofit recently spoke to a number of industry experts to help owners, developers and facility managers navigate through these variables to make informed decisions before committing their resources to existing building upgrades.

Calculating Costs, Returns

One of the challenges of determining the return on investment of retrofits is that it varies by project, as well as by customer, as each situation is unique. However, there are relatively accurate scenarios that can project savings over time, depending on the extent of the retrofit.

According to Iain Campbell, managing director of the Rocky Mountain Institute, Boulder, Colo., there are essentially three categories of retrofits:

1. single measure (often done annually)
2. integrated but non-invasive
3. deep and custom

"I think the story's a little different for each of those," he says. "The savings fall into, the way I view it, two different categories. You've got hard-dollar savings … [where] there's potentially operating cost savings." Campbell suggests upgrading to LED fixtures that last 10 years and have significantly lower operating costs as an example.

"Then, there's capital avoidance, where you're potentially upgrading equipment with something that's more energy efficient, but what you're upgrading was getting to the end of its useful life," he says.

When the decision to replace legacy equipment needs to be made, energy advisors can help clients make sound decisions by comparing the quality of new equipment and running energy scenarios rather than just basing an investment decision on efficiency alone, explains Paul Murphy, CEM, director at ENE Systems Inc., Canton, Mass., a member of the InsideIQ Building Automation Alliance, an international alliance of independent building automation contractors.