

EXECUTIVE SUMMARY

HOW TO CALCULATE AND PRESENT DEEP RETROFIT VALUE

A GUIDE FOR INVESTORS



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Energy efficiency building retrofits in the United States and around the world are attractive investments, but receive far less attention and capital than they deserve. This is in part due to a narrow definition of their value, typically focused on energy cost savings alone, and in part due to confusion and uncertainty about how to calculate, present, and justify such value as part of a retrofit capital request. This guide addresses this confusion and uncertainty, providing practical guidance to enable real estate investors to incorporate all the benefits of efficiency retrofits into their decision making.

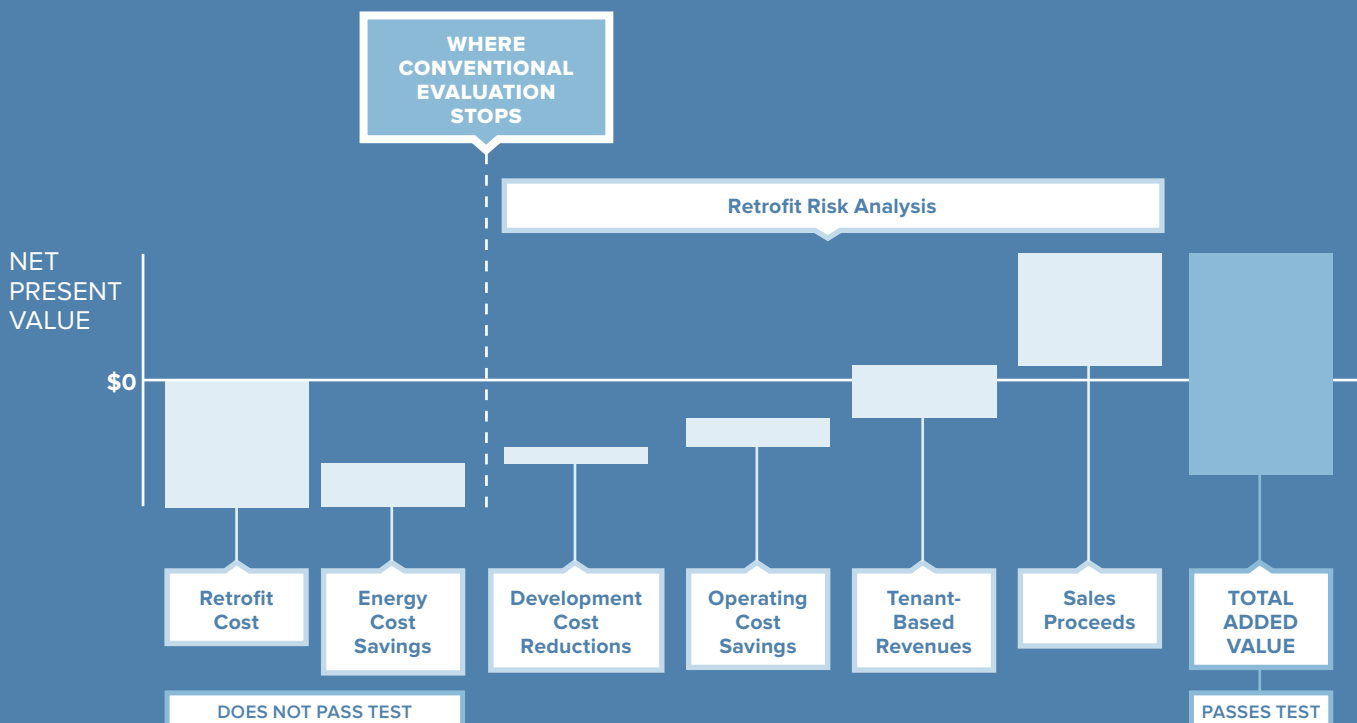
Real estate investors have an opportunity to earn higher returns from their properties by implementing certain types of efficiency investments known as deep energy retrofits. Deep energy retrofits employ an integrated array of energy efficiency measures, often as part of a multi-year or portfolio-level plan, to reduce energy consumption by 30 percent or more compared to the pre-retrofit energy use while

achieving superior sustainability performance.

These types of retrofits reduce operating costs and are able to improve the satisfaction and health of occupants. Further, the improved energy performance that deep retrofits deliver plays a critical role for tenant companies in increasing sustainability leadership, reputation, and risk management.

FIGURE ES1

WHY DEEP RETROFIT VALUE MATTERS



Source: Sample Deep Retrofit Value Report



The purpose of this practice guide is to enable real estate investors to tap into these tenant values through higher rents, occupancy, and tenant retention. These revenue benefits supplement lower operating costs to improve overall net operating income and property sales prices.

Deep retrofit value matters because it can completely change the outcomes of retrofit decision making (Figure ES1). A deep retrofit that has a negative net present value considering only the energy cost savings can actually be a lucrative investment. This practice guide enables the preparation of a well-reasoned and supported deep retrofit value (DRV) report to be presented as part of a retrofit capital request. A DRV report may take the form of a series of slides to senior decision makers, or be presented in detail with full supporting documentation and financial models to due diligence analysts. While it takes some cost and time to develop the report, this is a small price to pay to make more informed decisions about energy efficiency investments.

The practice guide defines and provides clear guidance for identifying, calculating, and presenting the following elements of deep retrofit value:

VALUE ELEMENT 1 RETROFIT DEVELOPMENT COSTS:

These costs represent the initial capital investment against which future cost savings and other benefits are measured. Many retrofit projects have little cost premium if timed with other capital improvement projects.

VALUE ELEMENT 2 NON-ENERGY OPERATING COSTS:

Deep retrofits can reduce operating costs associated with maintenance costs, insurance costs, and occupant churn rate. They can also

increase a building's occupied space through equipment downsizing and better occupant use of space.

VALUE ELEMENT 3 RETROFIT RISK ANALYSIS:

Retrofit risk analysis helps maximize value from the other elements. The identification and evaluation of these risks enables action to mitigate and accurately price them.

VALUE ELEMENT 4 TENANT-BASED REVENUES:

Tenant-based revenues from deep retrofits are generated when building owners are able to monetize enhanced demand resulting from a deep retrofit by increasing rents, occupancies, absorption, and tenant retention.

VALUE ELEMENT 5 SALES REVENUES:

Sales revenue premiums from deep retrofits result from higher net operating income (due to expense savings and increased tenant revenues), increased investor demand (which can lower cap and discount rates), and risk reduction (which further contributes to cap and discount rate reduction).