



The Benefits of Energy Efficiency in Commercial Office Space

Case Study – The Impact of Energy Efficient Building Upgrades on NOI

Energy Efficient Building Upgrades - Good for Buyers and Sellers!

A recently completed Energy Efficiency project in a 25 Story Office building located in downtown Philadelphia reduced annual operating costs by \$208,000. The Energy Efficient Measures (ECM) included LED lighting, free-cooling, premium efficiency motors for the condenser and hot water heating pumps with variable frequency drives and Retro-commissioning of the HVAC systems.

The NOI Improvement table shows the affect these real savings would have on NOI and the “Cap” rate against typical market Rents, OpEx Costs and a hypothetical property value of \$33,600,000.

Project Metrics		NOI Improvement	Pre- ECM	Post-ECM
Total Project Cost:	\$622,000	Rent SF:	\$23.00	\$23.00
Utility Company Rebate:	\$156,400	OpEx SF:	\$(11.00)	(10.14)
Net Project Cost:	\$465,600	NOI SF:	\$12.00	\$12.86
Annual Energy Savings:	\$208,000	Annual NOI:	\$2,880,000	3,086,400
Annual Energy Savings SF:	\$0.86	Return on Equity:	8.57%	9.02%
Investment Recapture Period:	2.4 yrs.			

Value Enhancement

An Owner of a \$33,600,000 property making these improvements at a Cap rate of 8.57 would see the value of the property increased to \$36,008,000 due to the improved NOI. This is a 7.2% valuation enhancement or an ≈ \$3,000,000 value growth with an ≈ \$500,000 investment in CapEx!

Investment Enhancement

A buyer of a \$33,600,000 property would realize an increase in their unlevered Rate of Return of .60% in net dollars by installing similar Energy Efficient building upgrades.



The Benefits of Energy Efficiency in Industrial and Manufacturing Buildings

Case Study – The Impact of Energy Efficient Building Upgrades on NOI

Energy Efficient Building Upgrades - Good for Buyers and Sellers!

A recently completed Energy Efficiency project in a 105,000 Sq. Ft. manufacturing plant located in Northeast Philadelphia reduced annual operating costs by \$42,000. The Energy Efficient Measures (ECM) included a complete LED lighting upgrade. At the customer's request for better productivity, quality control and worker safety the light levels were increased 30 to 300%!

The NOI Improvement table shows the affect these real savings would have on NOI and the “Cap” rate against typical market Rents, OpEx Costs and a hypothetical property value of \$3,675,000.

Project Metrics		NOI Improvement	Pre- ECM	Post-ECM
Total Project Cost:	188,000	Rent SF:	\$5.00	\$5.00
Utility Company Rebate:	\$29,000	OpEx SF:	\$(1.85)	(1.45)
Net Project Cost:	\$159,000	NOI SF:	\$3.15	\$3.55
Annual Energy Savings:	\$42,000	Annual NOI:	\$330,750	372,750
Annual Energy Savings SF:	\$0.40	Return on Equity:	9.00%	10.14%
Investment Recapture Period:	3.7 yrs.			

Value Enhancement

An Owner of a \$3,675,000 property making these improvements at a Cap rate of 9% would see the value of the property increased to \$4,141,666 due to the improved NOI. This is a 1.14% valuation enhancement or an ≈ \$466,666 value growth with an ≈ \$159,000 investment in CapEx!

Investment Enhancement

A buyer of a \$ 3,675,000 property would realize an increase in their unlevered Rate of Return of 1.14% in net dollars by installing similar Energy Efficient building upgrades.