

Commercial Building Audit



Building 2 story, 38,000 sqft building constructed in 1970 with an addition built in 1985.

Occupancy 5 tenants utilizing 90% of the space, one of whom occupies 40%, the tenants pay their respective portions of utility costs.

The Audit Through three site visits IBEA collected all pertinent data about the building shell, heating and cooling systems, domestic hot water production, and the lighting system. The data was then modeled and compared with multiple design solutions and presented to the building owner. The owner then selected a set of solutions for further analysis, strategy development, and financial modeling for return on investment.

The Findings IBEA reported that close to 30% of energy expenditures could be saved. While the cost of implementing the energy conservation measures was over \$100,000, with current market incentives and low interest rates actual savings of \$15,000/year can be achieved during the loan repayment period of seven years.

Energy Conservation Measure	Projected Annual Savings
Lighting:	
Replace Lamps & Ballasts	
Install New Lighting Controls	\$13,900/year
Hot Water Heaters:	
Replace with Natural Gas units, insulate hot water piping	\$1,100/year
Insulation/Air Sealing:	
Install rigid foam board at interior masonry walls	\$14,800/year

The Breakdown Immediate results are cash flow positive at \$15,000 per year including debt service on loan to implement the energy conservation measures. This equals a \$30,000 savings in operating costs before debt service. (Assuming a conservative 5% annual increase in energy costs).

The Challenge The main challenge was designing an implementation plan with all utility payments passing through to the tenants.

The Solution Include tenants in the process from day one. Pass along the amortization of the cost of energy improvement.