

# Sustainability Financial Impact Analysis - LCCA

**Why:** Our approach is simple: We assess buildings, identify opportunity areas and develop strategies to meet our client's sustainability goals. By taking an integrated approach to consulting and project management, we collaborate with everyone throughout the design and construction process to provide the most financially effective and environmentally responsible solutions for our clients.

**Background:** As the need for sustainable building practices becomes more apparent to business leaders, a new market has been created to move these ideas from the drawing board to reality. This need has positioned Environmental Building Strategies (EBS) at the forefront of this emerging industry, providing services to meet the demand. The current economic condition forces developers to focus on cost efficiency and asset management companies to focus on cutting operating costs of facilities within their portfolios. To supplement the marketing of intelligent sustainability decisions, EBS supports their goals with accurate financial projections. This has led to the creation of the EBS Sustainability Financial Impact

Solution Overview

Retooling/Budgeted amount				\$25,000					
Category	Start-up Cost less Immediate Rebates	Average Annual Savings	Net Present Value	Life-Cycle Analysis			Optimized solution		
				NPV (5% rate)	Payback Period	Return on Investment	Decision to proceed? (Y/N)	Start-up Cost less Immediate Rebates	Net Present Value
Management with no change									
1. Ventilation	\$ 1,000	\$17,074	\$ 14,741	1	545,224	87,574%	Y	\$0	\$0
2. Exterior Lighting	\$ 25	\$62	\$50	1	\$62	84%	Y	\$25	\$50
3. Exterior Lighting with daylighting	\$25	\$17	\$12	12	\$1,820	5,075%	Y	\$0	\$0
4. Exterior Lighting with Motion control	\$0	\$0	\$0	1	\$0	0%	N	\$0	\$0
5. Water Fixtures Replacement	\$12,000	\$4,122	\$31,230	7	\$23,207	813,207%	Y	\$2,500	\$31,210
6. Windows	\$2,800	\$491	\$1,814	1	\$7,022	147,12%	Y	\$2,800	\$4,814
7. Renewable Energy - Solar	\$77,000	\$8,782	\$12,209	1	\$2,914	106,703%	Y	\$0	\$0
8. Water Fixtures and Leaks	\$400	\$57	\$240	10	\$530	15,140%	Y	\$0	\$0
9. Insulation	\$0	\$2	\$13	11	\$2,820	8,989%	Y	\$0	\$13
10. Energy Efficiency	\$20,000	\$0	\$0	1	\$1,248	3,144%	Y	\$0	\$0
11. Energy Efficiency - Solar Panels	\$ 11,000	\$470	\$4,230	10	\$10,901	84,901%	Y	\$0	\$0
12. Waste Management	\$2,000	\$6,582	\$65,816	6	\$75,703	678,623%	Y	\$2,000	\$65,816
13. Plug Load Analysis	\$0	\$257	\$3,287	7	\$2,267	63,267%	Y	\$0	\$3,287
14. Plug Load Analysis with Load Shifting	\$1,600	\$205	\$2,022	10	\$7,145	87,815%	Y	\$0	\$0
<b>Total</b>					<b>Total</b>			<b>Total</b>	
All	\$185,876	\$32,082	\$320,822		\$240,793	\$94,917		\$20,153	\$116,038

**Scope:** The Sustainability Financial Impact Analysis allows EBS to fuse LCCA and GAP analyses by inputting energy audit/modeling information as well as user defined assumptions (risk, inflationary pressures, etc.) to calculate baseline costs of a building's current and/or projected operations. From the baseline, the application computes various scenarios with estimated profitability related to implementing sustainable changes to the clients' facilities. These scenarios are then tailored to determine client specified criteria, such as NPV, SIR, and MIRR, where we then further analyze the data to maximize value and minimize initial costs. With the completion and implementation of the Sustainable Financial Impact Analysis, EBS has created a competitive advantage for our clientele by giving them the ability to customize sustainable strategies to their goals and specifications. When it comes to sustainability, clients will often misperceive having to pay a large premium. The reality is that an intelligent approach improves the quality of the facility; decreases the harmful impact on our environment, lowers operating costs, and adds value to the property while meeting the rate of return requirements for even the most ambitious organizations.

“Optimizing the Value of Sustainability”