

Project Details

Client: **Lima Public Library Association**
 Design Professional: **Smith-Boughan Mechanical Services**
 Services Provided: **Design & Implementation – HVAC, Controls & Lighting System Upgrades**
 Market: **Commercial Office Building**
 Location: **658 W. Market Street, Lima, Ohio 45801**



Project Summary

The client was faced with an aging facility infrastructure that had exceeded its useful life cycle by over a decade. This was causing the owner to experience excessive repair and maintenance expenses. System failures were creating extended downtime with the comfort systems serving the facility. In addition, the existing systems were inefficient by today's energy standards and the client was faced with excessive utility expense. The development and implementation of this project provided the net cost savings to the client as per the table below. This project demonstrates the commitment of the client to minimize operating expense and provide a comfortable environment for their tenants, while being mindful of their environmental impact.

This facility is located adjacent to the Lima Public Library and St. Rita's Medical Center campus, housing medical and professional offices providing a wide range of services to the region.

658 Building Mechanical and Lighting System Upgrades Financial Summary

9/25/2013

TABLE 3.1 - ECM w/ COST AVOIDANCE CALCULATED

Item No.	Energy Conservation Measure (ECM)	Implementation Cost (\$)	*Potential AEP Incentive (\$)	Cost Avoidance (\$)	**Final Cost of ECM (\$)	***Annual Energy Savings Potential (\$/yr)	Simple ROI (%)	Simple Payback (Years)
1	INSTALLATION of NEW 50-TON AIR COOLED COOLING SYSTEM	\$113,675	\$2,500	-	\$62,175	\$7,061	17.0%	5.9
2	INSTALLATION of DEMAND CONTROL VENTILATION	\$4,254	\$1,190	-	\$3,064	\$1,345	43.9%	2.3
3	FACILITY LIGHTING SYSTEM UPGRADES	\$56,810	\$2,645	-	\$54,165	\$9,544	18.6%	5.4
4	INSTALLATION of NEW HEATING BOILER SYSTEM	\$86,395	\$0	-	\$62,995	\$5,881	9.3%	10.7
5	INSTALLATION of NEW DOMESTIC HOT WATER HEATER	\$3,985	\$0	-	\$3,985	\$513	12.9%	7.8
TOTAL		\$265,119	\$6,335	\$72,400	\$186,384	\$28,354	16.2%	6.6

* Note 1 Potential Utility Incentives are based on the AEP Gridsmart incentive program, however we can not be assured that these incentive dollars will be approved until scope of work is defined and the application process is completed.

** Note 2 Final Cost of ECM = Implementation Cost - AEP Incentive - Cost Avoidance. Cost avoidance is an estimated value based on assumed scope of work required. Actual cost may vary based on final scope of work.

*** Note 3 Annual Energy Savings Potential include calculated water and sewer savings from demolition of existing cooling tower. Water and sewer rates were referenced from Lima City Hall website. Calculated water and sewer savings = \$1,878.88. All energy savings are estimated utilizing energy modeling software and will be dependent upon actual building usage.