

Case Study ID

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ENERGY OFFICE

Case Study Series

Saving Energy in Michigan's Schools Oakland University O'Dowd Hall & Public Safety/Service Building

Energy Savings Nothing New to Oakland U. With improvements ranging from lighting controls to direct digital controls, Oakland University expects to save an additional \$61,285 per year in energy costs.

Energy efficiency improvements made at O'Dowd Hall and the Public Safety/Service Building are just some of the ways that Oakland University has reduced its energy costs over the years.

Rick Perhai, plant engineer and energy manager, said that previous energy efficiency projects convinced Oakland University to search for additional cost savings opportunities. "Our past energy projects made this project easy to sell. The cost savings have been documented, and we're looking for more."

Energy Improvements

In 1996, a comprehensive energy audit of O'Dowd Hall and the Public Safety & Service Building identified more energy savings possibilities. The recommended improvements were:

- Add direct digital controls to temperature controls
- Replace magnetic ballasts with electronic ballasts
- Add specular reflectors
- Replace incandescent fixtures with compact fluorescent fixtures
- Add occupancy sensors for lighting controls
- Add variable speed drives to supply and return fan motors

Project Cost

Total cost for the project was \$158,085. With annual energy savings of \$61,285, this project will pay for itself in 2.58 years.

Old Hand at Energy

Oakland University has been participating in energy conservation programs since 1979 and has completed dozens of energy efficiency projects. According to Rick Perhai, the upgrades with the best paybacks are lighting upgrades, occupancy sensors, and adding direct digital controls (DDC) to temperature controls.

Other favorites are:

- Upgrading motors to energy efficient models
- Installing shower head restrictors in dormitories
- Energy management systems
- Staged volume control for air handling units

Funding

Oakland University participated in a U.S. Department of Energy federal grant program which assisted them in funding their energy efficiency improvements. Although this federal program is no longer available, the Energy Office (EO) of the Michigan Dept. of Consumer & Industry Services has developed a low-cost financing program to allow all public schools in Michigan to obtain financing for energy efficiency improvements.

Feel free to contact us if you have any ideas for case studies or other questions :

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