

American Family Insurance – Lighting

American Family Insurance is a private mutual insurance company and Fortune 500 company. American Family's corporate offices are in Madison, and the company operates in 19 states.

Challenge

American Family's East Region facility in Madison consists of three large office buildings plus support facilities and is the company's largest complex. This facility was previously lit with two-lamp T8 fluorescent light fixtures, and the company spent thousands of dollars annually on electricity for lighting. As part of the company's commitment to sustainability, a team investigated ways to make the company's lighting more efficient and reduce the associated energy consumption.

Strategy

The project team, which consisted of American Family's facility team manager and facility staff and a representative from Focus on Energy, meets monthly to identify new energy-saving strategies. In 2010, this team discussed the possibility of replacing the East Region's T8 light fixtures, which used two 34-watt fluorescent bulbs apiece, with reduced-wattage T8 (RWT8) fixtures that use only one 28-watt fluorescent bulb each. The RWT8 fixtures produce a cooler, whiter light than the old fixtures.

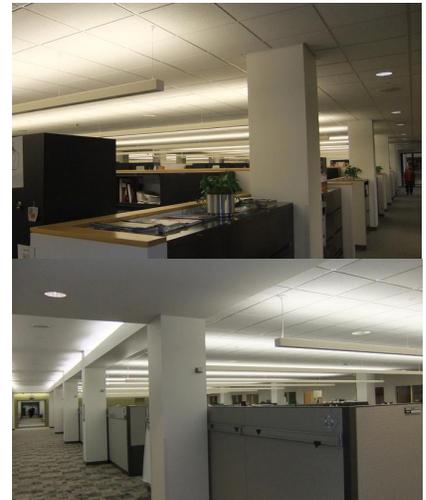
Because this change would significantly reduce the wattage used for lighting, the project team wanted to be sure that enough light would continue to be produced. In the third quarter of 2010, the team began collecting light readings and energy calculations in selected regions of the facility. These calculations showed that lighting levels could be maintained by replacing the old T8 fixtures with the new RWT8 fixtures. In some cases, it was advisable to install task lighting instead of additional overhead lighting. Where three-bulb ballasts were replaced with four-bulb ballasts, the ballasts per row could even be reduced by two-thirds!

The team developed a facility-wide rollout plan and a maintenance schedule at the same time. The first new fixtures were installed in April 2011, and the rollout was completed in August 2011. Throughout the project, the use of natural light was maximized near windows, and excess lighting capacity was removed in these areas. At the same time, the light measurements ensured that lighting near windows would continue to be adequate at night.

Results

This project eliminated a significant amount of energy usage for lighting, increased American Family's lighting efficiency, and maintained the light level in the facility. In the B and C buildings, the total project cost was \$162,000; this money came from American Family's capital budget. The changes are projected to save 875,105 kWh and \$66,359 per year. The project received an incentive of \$47,569 from Focus on Energy, so its simple payback time is just 1.7 years. The cooler light color was well received by American Family employees.

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New RWT8 fixtures (below) produce cooler, more even light