

Your Energy SavingsSM Business Program

Case Study: Parish Service Company



Since 1935, Parish Service Co. has manufactured and distributed church bulletins, parish folders, special offering boxes, as well as personalized business gifts such as calendar planners and appointment books. Located in Farmington Hills, Mich. its facility encompasses approximately 45,000 square feet of manufacturing, warehouse and office space. Like many businesses today, Parish Service Co. was looking to reduce costs in a difficult economic environment. Working with their lighting contractor, they learned about the incentives offered by DTE Energy's Your Energy Savings Program and embarked on a major lighting upgrade.

The project included the replacement of inefficient T12 fluorescent fixtures, upgraded exit signs, the installation of occupancy sensors and permanent delamping. The DTE Energy program provided Parish Service Co. with nearly \$11,000 total incentives to help offset the cost of materials and installation for the project. The implemented measures are projected to result in energy savings of more than 127,000 kWh, or more than \$13,000 annually.

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T12 Fluorescent Fixture Replacement

Though outdated and inefficient by current standards, linear fluorescent T12 fixtures are still common fixtures in many facilities. Replacing these systems with T8 or high performance T8 (HPT8) systems can create a more comfortable work environment while increasing efficiency and saving money. When paired with electronic ballasts, T8 fixtures produce less heat, eliminate flicker, and emit less noise than T12 systems. With less heat produced, it's possible that that summer cooling loads can be reduced.

At the Parish Service Co., 72 four-lamp T12 fluorescent fixtures were replaced with 50 two-lamp T8 fixtures. Additionally, 10 two-lamp 8 ft. T12 fluorescent fixtures were replaced with 2-lamp 8 ft. T8 High Output fixtures. Finally, 115 400 watt HID lamps were replaced with 21 four-lamp T5 High Output fixtures and 39 six-lamp T5 High Output fixtures.

Permanent lamp removal, or delamping, played an important role in the overall system upgrade. The system upgrade at Parish Service Co. resulted in 77 fewer fixtures. Not only does this increase energy efficiency, it also reduces lighting maintenance and allows the company to carry fewer replacement lights. It is important to note that removing lamps from a fixture without changing ballasts does not result in as much energy savings as a complete retrofit, since the ballast still draws current. It is important to determine whether or not to use reflectors in combination with lamp removal in order to maintain adequate lighting levels.

The combined delamping and lighting fixture upgrade is projected to save the company more than \$12,000 in annual energy costs and over 117,000 kWh. This is enough energy to power the typical US household for more than 10 years.¹

LED Exit Signs

Standard exit signs require regular maintenance and are relatively expensive to operate. Just one sign with an incandescent light bulb can use over \$28 of electricity annually. Additionally, traditional incandescent bulbs must be replaced twice per year and bulb failure can result in a costly fire inspection violation. Even CFL equipped exit signs will consume \$7 per year more in electricity than LED exit signs and will still require regular replacement lamps.

Parish Services replaced 12 existing incandescent exit signs with ENERGY STAR® qualified LED signs. LED exit signs typically use less than five watts of electricity and only about \$5 of electricity per year. With a rated life of up to 25 years, LED exit signs also reduce operating costs because they require minimal maintenance and infrequent lamp replacement.



¹ <http://www1.eere.energy.gov/consumer/tips/appliances.html>

Occupancy Sensors

Many of the rooms at Parish Service Company had intermittent use, so occupancy sensors were installed to reduce incidences of lighting unoccupied rooms. Constant lighting of unoccupied rooms wastes energy and increases maintenance costs because the bulbs need to be replaced more often.

Rather than relying on people to remember to switch off lights when they leave a space, occupancy sensors perform this task. They measure the movement of people within a space by a variety of methods. When movement is detected, the lights turn on automatically; they then shut off when they no longer sense movement. Occupancy sensors may also use sound or body heat to detect when a person enters a space. Each unit's shut-off time can be preset, given the needs of the space being controlled.

Incentives from Your Energy Savings made Parish Service Co.'s decision to install 17 occupancy sensors throughout the facility an easy one. In addition to the incentives provided, the company will save an estimated \$715 annually.

The energy savings results of these measures are summarized as follows:

Measure	Annual Demand Savings	Annual Energy Savings	Annual Cost Savings
Replace 4-lamp T12s with 2-lamp T8 fixtures (delamping)	5.26 kW	13,666 kWh	\$1,449
Remove T12HO fixtures	5.37 kW	13,957 kWh	\$1,479
Replace 2-lamp T12s with 2-lamp T8HO fixtures	0.47 kW	1,730 kWh	\$183
Replace HIDs with 6-lamp and 4-lamp T5HO fixtures	33.76 kW	87,779 kWh	\$9,305
Replaced Exit Signs with LED Signs*	0.28kW	2,412 kWh	\$256
Occupancy Sensors*	1.87 kW	6,749 kWh	\$715

*Deemed Savings

In addition to increased efficiency and cost savings, Parish Service Co. now enjoys better lighting levels throughout the facility. This is especially beneficial in the manufacturing area as it has improved the printing process as a whole. The success of this project has inspired Parish Service Co. to consider lighting upgrades in other areas of the facility.

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Your Incentives to Save

DTE Energy's Your Energy Savings Program offers cash incentives to help business customers reduce their energy use. These incentives reduce the up-front cost of installing more efficient equipment and make it easier for you to invest in energy efficiency. Since a portion of energy costs are a controllable operating expense, every dollar saved can make an impact on your bottom line.

Making it Easier to Save

The program offers incentives for an array of energy-saving technologies – electric and gas. Customers can pick from a prescriptive menu of projects with preset incentives or propose a custom project with verifiable energy savings.

To participate in the program, simply follow these steps:

- Check your eligibility with program requirements
- Submit a preapproval application to reserve your funding
- Install the eligible measures according to the application specifications
- Complete, sign and submit final application with all documentation within 60 days of project completion

Contact Us

We can help you understand the incentive requirements and available resources. You can contact us via letter, fax, e-mail or phone. You can also download incentive applications from the program website at:

YourEnergySavings.com

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