



# Energy Efficiency Improvements Light Up Production Floor

For years, the overhead lights in Weaver Quality Shutters' 13,500 square-foot factory generated enough heat to drive up the temperature in an already hot and dusty production environment. When Weaver's electrical contractor suggested replacing the factory lights with new energy-efficient equipment that would save energy and lower the heat output, the company jumped on board.

In January 2010, Weaver's scheduled the install and applied for rebates from the APS Solutions for Business program. Although the final cost of the project came to more than \$9,000, the APS rebates paid \$4,625 — more than half the invoice total.

## BACKGROUND

Weaver Quality Shutters had already taken energy-savings steps when it upgraded its evaporative cooling systems to better manage temperatures inside the open-door production factory. Its next focus was to address the lighting equipment that hung above work areas. In addition to the heat generated by the equipment, the lights also failed to provide adequate illumination for the work areas. And that illumination decreased significantly as lamps reached the end of their shelf life.

## PROJECT SNAPSHOT

### BUSINESS

Weaver Quality Shutters

### BUILDING TYPE

Industrial

### MEASURES

Lighting Retrofit

### TOTAL PROJECT COSTS

\$9,153

### APS INCENTIVES

\$4,625

### BUSINESS PAYBACK

Less than 18 months

### ANNUAL PROJECTED SAVINGS

42,846 kWh

### LIFETIME PROJECTED SAVINGS

642,690 kWh

## GETTING STARTED

### MAKING THE BUSINESS CASE

Always looking for ways to save energy costs, Jim Murphy, president of Weaver Quality Shutters, took the idea of upgrading the lighting to the stakeholders of the employee-owned company.

“When they learned that an investment of \$5,000 would improve working conditions and save \$5,000 in energy costs in less than two years, they were sold,” says Murphy. He worked with the electrical contractor, who had recommended the retrofit, to map out plans for the retrofit.

In January 2010, the company scheduled the install and successfully applied for incentives from the APS Solutions for Business program to help fund the retrofit measure. The retrofit project included 37 new four-lamp, 400-watt, T5 high-output electronic ballasts and bulbs.

It took only a few days to complete the retrofit. The contractor arrived after production ended each day and was able to finish the installation in about five days. The work did not interrupt production or pose any additional effort to the company, other than needing room for a special lift required to reach a few fixtures.

While Murphy knew he’d see energy savings, he was surprised by the improvement in lighting quality within the building. “I was shocked,” Murphy said. As the new lighting was installed, employees were also “shocked” by the improvement and preferred working in areas where the new lights were in place.

### PROJECT COSTS AND BENEFITS

While the number of production days at Weaver Quality Shutters varies from month to month, Murphy expects to see a savings between \$250 and \$300 in electricity costs a month with the energy-efficient equipment. Since the installation, the business has seen its average monthly energy use decrease by nearly 10 percent. The new lights are projected to save 42,846 kWh annually and more than 642,690 kWh over the lifetime of use.

“We like to get a return on investment of a capital project within two years,” adds Murphy. “This project should pay for itself in about 18 months.”

Because the old lights and their significant heat output are gone, Murphy says he may also see lower cooling costs.

And though the new energy-efficient lamps have a similar shelf life as the old lights, the contractor predicted it would be two years before replacements were needed. As T5s near the end of their shelf life, they continue to maintain their original level of luminosity.

According to Murphy, employees commented immediately on the improvement in lighting. And that improvement was probably the biggest surprise to him. “Our lighting is at least three times greater than before,” says Murphy. “That was a shock.”



### HOW MUCH CAN YOU SAVE?

Change one incandescent bulb that burns six hours a day with a CFL and save \$9 on electricity and \$3 on maintenance costs annually.

Replace T12 fluorescent lamps and magnetic ballasts with T8 fluorescent lamps and electronic ballasts to reduce lighting energy use by up to 30 percent. Choose premium T8s and save even more.

Save \$20 per year for each incandescent exit sign you replace with an LED model.

## Contact Us to Get Started

To learn more, call the Solutions for Business program team at 866.277.5605 or visit [aps.com/businessrebates](http://aps.com/businessrebates).