

Energy Efficiency Suits Iconic White Castle Brand



Bright, evenly distributed light on the Porcelain Steel Buildings (PSB) shop floor have improved working conditions and safety while saving the company thousands of dollars per year.

Industry

Manufacturing

Building type

Single Story

Measures implemented

Lighting, Occupancy Sensors, Controls

Total project cost

\$188,178

Projected annual energy savings

729,855 kWh

Incentives paid

\$48,967

Payback with AEP Ohio Incentive

2.4 years

Payback without AEP Ohio Incentive

3.2 years

Program Type

Prescriptive

Lighting Retrofit, Sensors Result in Thousands of Dollars Saved Annually

Iconic brands are icons for a reason – everything they do is memorable. Long before being “green” was cool; White Castle Systems, Inc was reusing its bun boxes, sending them from its bakeries to its restaurants and back again and again until they could no longer be used. At the end of their useful life, White Castle recycled the boxes. This practice began 50 years ago, when the cost of the iconic Slider was just 12 cents.

Today, the company’s 107,000-square-foot Porcelain Steel Buildings (PSB) Co. building in Columbus, Ohio, adds to its legacy of conservation through energy efficiency measures.

“Energy efficiency makes sense for our company. It makes sense economically and it goes along with what has been a part of White Castle’s DNA since the very beginning,” said Environmental Engineer Jeff Miller. “We have never been a company that ‘green washes’ its reputation because we want to be something we are not. We practice what we preach – in our bakeries, at our restaurants and in all of our facilities.”

White Castle is saving over 700,000 kWh annually which equals approximately \$60,000 on its yearly electric bill.

White Castle will continue to realize the full effects of the lighting control system in the second and third year after installation as their energy costs continue to decrease.

The PSB Co. sits on the company’s 10-acre campus in a building White Castle has owned since 1934. It houses mechanical stamping presses, shears, plasma and laser cutting machines, press brakes, welding booths, grinding, powder coating and assembly lines which give the facility the feel of a job shop. It produces all of the stainless steel fixtures and equipment necessary for White Castle restaurants. PSB also produces its own brand of ‘Prizelawn’ lawn spreaders as well as many for third parties. PSB also has fabrication contracts in other sectors including automotive and agriculture.

15 Projects in 15 Different Spaces

White Castle is a big company with plenty of internal competition for investment dollars and there is a process that must be followed to earn funding. Building Maintenance Supervisor John Wheeler, himself an electrical contractor for 20 years, drew on his experience and took a well thought out plan to Director of Construction & Corporate Facilities Craig Martin – who then took it to the company’s Capital Expenditure Committee.



A unit of American Electric Power



PSB has the metal fabricating tools – mechanical stamping presses, shears, plasma and laser cutter, press brakes, welding, grinding, powder coating – necessary to manufacture fertilizer spreaders and other equipment for a variety of segments.

“We wanted to reduce the amount of electricity used, but it was just as important to get the right amount of light for the people working there”

– **Jimmy Slatzer,**
Project Manager
Loeb Electric



Loeb Electric installed a low voltage panel to eliminate wasted energy in the PSB facility. The panel supplies lighting in spaces based on occupancy and day lighting conditions.

“Combine John’s understanding of what needed to be done with AEP Ohio’s incentives, and the internal decision process became much easier,” said Martin. “The incentives also allowed us to do more of the lighting work than we first thought we could do.”

The overarching goal for White Castle and PSB was to achieve uniformity in light levels throughout the facility. The uneven light levels created challenges (welders working under flashlights) for PSB’s 60-plus employees. “A simple lighting retrofit would not address all of the issues we had in our facility,” said John Wheeler, Building Maintenance Supervisor. “We needed to address the bad lighting and patchwork lighting issues throughout. The incentives AEP Ohio offers helped White Castle make the decision to invest in improving our lighting.”

Wheeler turned to Loeb Electric for a solution after reviewing proposals from six electrical contractors. Loeb’s team of Doug Beh, Director of Sales; Jimmy Slatzer, Project Manager; and Kurtis Meyer, Energy & Retrofit Specialist crafted a plan that puts the right amount of light in all work spaces and saves electricity.

After analyzing the facility’s lighting systems, Loeb installed 28-watt, 4-foot T8 linear fluorescent lamps to replace a patchwork of lamp types that led to uneven lighting conditions. In addition to lighting, occupancy sensors, photocells, low voltage switching overrides and energy

efficient time clocks were installed.

“We wanted to reduce the amount of electricity used, but it was just as important to get the right amount of light for the people working there,” said Slatzer. “Our philosophy in designing the system was to only use the electricity we need, when we need it.

Prior to this retrofit, all of the lights were either on or off. Wheeler can now monitor the building’s lighting system and troubleshoot from his laptop computer wherever he and his computer may be. Wheeler can tell if lights are on in an unused area of the facility or if lights have failed to come on at the right time in an area with people at work.

The company’s security people have also benefitted from the occupancy sensors that light their path on nightly rounds through the cavernous PSB building

Shannon Tolliver, Social Responsibility and Environmental Sustainability Manager and great granddaughter of White Castle founder Billy Ingram concludes, “Our corporate responsibility policy touches on every aspect of what we do. Yes, we may decrease our costs. But by saving electricity or recycling bun boxes, we are taking a big picture, long-term view of our sustainability. That is how White Castle has made a positive difference in people’s lives for 90 years.”

About AEP Ohio’s energy efficiency programs for businesses

AEP Ohio’s Business Incentive program provides incentives to help business customers purchase and install energy efficient equipment. Prescriptive incentives are available for common commercial and industrial measures including lighting, HVAC, motors and drives, refrigeration and food preparation and storage equipment. Custom incentives are available for process improvements and other measures not covered through prescriptive incentives. For more information, please visit AEPOhio.com/Incentives or call **1-877-607-0739**.



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