



PROJECT

Luxfer Gas Cylinders

LOCATION

Graham, North Carolina

DETAILS

LED lighting upgrade of 119,355 square-foot aluminum cylinder manufacturing facility

RESULTS

58% REDUCTION IN ANNUAL LIGHTING ENERGY USE

2.1 YEAR PAYBACK PERIOD

\$35,330 SAVINGS IN ANNUAL ENERGY COSTS

512,039 kWh REDUCTION IN ANNUAL ENERGY USAGE

\$24,526 SAVINGS IN ENERGY INCENTIVES



Luxfer Gas Cylinders LED Upgrade: Saves \$35,330 Annually, Meets Corporate Energy Initiative

The Challenge

Luxfer Gas Cylinders had a corporate initiative to reduce energy usage and its carbon footprint throughout its aluminum cylinder factory in Graham, North Carolina. Luxfer conducted exhaustive industry and product research in selecting a company to conduct the lighting upgrade throughout the 119,355 square-foot facility in Graham, NC. The building was equipped with outdated fluorescent tube lighting, including T8 and high-output T5s, which were inefficient and needed to be replaced. GreenTech Solutions Group offered a turn-key package that was exactly what the management at Luxfer was seeking.

Luxfer's business model is based on strong customer relationships, high-performance products for specialist markets, a strong technical base, manufacturing excellence, and a commitment to research and development and new product generation. Its vision is to be recognized as the most dynamic cylinder company and help create a wiser and healthier world. Customer satisfaction is at Luxfer's core values, so **it was imperative that GreenTech conduct the LED lighting upgrade without disrupting the critical work flow in the factory.**

The Solution

GreenTech carefully assessed the needs and energy usage of the company and provided solutions vital to production. **The LED lighting upgrade involved energy-efficient lamps, ballasts, and lighting controls that significantly improved the light levels over the previous, outdated system.**

The LED upgrade at Luxfer required retrofitting many fluorescent 4-foot and 8-foot tube light fixtures with energy-efficient LED bulbs. Since the bulbs are long-lasting, the retrofit greatly reduces the need to replace burned out bulbs, thus **driving down the company's overall operational costs.**

The main offices, production and distribution areas, and external lighting were upgraded to LED fixtures. Legacy metal halide fixtures were replaced with LED high bays. **Dimmable lamps provided customizable light levels and occupancy sensors further increased energy efficiency throughout the building.**

The Results

The factory LED lighting upgrade resulted in a **dramatic 58 percent reduction in annual lighting energy usage, which will save Luxfer \$35,330 each year.** Furthermore, the lighting quality in the production and distributions areas were notably improved with new, brighter fixtures, increasing employee safety and productivity that continues to foster Luxfer's commitment to manufacturing quality products.

A summary of benefits is as follows:

- 58% reduction in annual lighting energy usage
- 2.1 year payback period
- \$35,330 savings in annual energy costs
- 512,039 kWh reduction in annual lighting energy usage
- \$24,526 savings in energy incentives

“Through this lighting upgrade, we’ve taken a huge step forward in implementing our long-term sustainability objective, with GreenTech providing the support, scale, and products that we needed to get it done right,” said Luxfer Process Engineer Manalo Williams.

The LED lighting retrofit resulted in a significant 512,039 kWh reduction in annual lighting energy usage, which is the equivalent of planting 296 acres of forest or consuming 40,667 gallons of gasoline. **Williams said since the upgrade, the enhanced lighting has an additional benefit for the workforce.** He noticed that a better-lit, brighter facility makes for a more pleasant workplace where employees can take a more dynamic role in processes - a win-win for innovation.



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Manalo Williams, Luxfer Process Engineer



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