

## CASE STUDY

# SIMONA AMERICA Industries

## PPL Electric Utilities Business Energy Efficiency Program



### Project Overview

Since 2017, PPL Electric Utilities has provided SIMONA AMERICA Industries with \$153,296.68 in incentives to offset the cost of a variety of custom energy efficiency projects. These improvements are estimated to save the facility \$180,680.50 annually. The company's success is reflective of their desire to increase sustainability, as well as their long-lasting and trusting relationship with the PPL Business Energy Efficiency Program.

#### JUST THE FACTS

**\$153,296.68**

Rebates paid

**3,021,413**

Annual kWh savings

**\$180,680.50**

Estimated annual savings

### The opportunity

As one of the leading producers and development partners in the field of thermoplastic products, SIMONA AMERICA Industries already had ambitious goals regarding energy efficiency and sustainability. Along with their current solutions to promote a responsible attitude toward energy consumption, the company enlisted the PPL Business Energy Efficiency Program to help with a variety of custom upgrades to their 180,000 sq. ft. facility in Archbald, PA.

### The project

SIMONA AMERICA Industries' custom projects were more complex than typical prescriptive projects, but the technical expertise provided by PPL Electric helped guide them to make smart and efficient decisions, such as choosing equipment upgrades that would make the biggest impact. Through custom incentives, SIMONA AMERICA Industries was able to offset the cost of numerous custom projects.

- Completed a 200 horsepower DC to AC motor retrofit to avoid losses in converting AC power input to DC for a plastic extrusion machine. **The new AC motor used 73% less power to produce the same amount of product.**
- Replaced two 55 horsepower and two 100 horsepower air compressors with two 75 horsepower air compressors equipped with variable frequency drives. The variable frequency drives allowed for the compressors to ramp up and down to meet the air needs of the facility in real time without adjustment by facility staff, **saving nearly 50% on energy in the process.**
- Replaced extruder machines with newer and more efficient versions than the baseline new equipment. **The new machines use less energy and were able to produce 60% more product.** The main energy conservation measure for this project is the use of an electronic motor instead of a hydraulic one along with a more efficient melt pump.
- Networked lighting controls were installed to drive more savings on the facility's lighting load. **The new efficient LED controls use 40% less energy than the LED system without controls** and allows them to see usage through their facility through a heat map that resulted in a more efficient layout of the facility.


### Questions?


Visit [ppl electric.com/businessrebates](http://ppl electric.com/businessrebates) or call us at **1-866-432-5501** to learn how your business or organization can save.


### The results

For a facility of this size, the energy savings were significant, totaling 3,021,413 in kWh saved annually. Additional benefits included reduced production costs, longer life cycles of their operational systems and measurable efforts in meeting their energy efficiency goals. Their estimated yearly savings comes out to approximately \$180,680.50.

Annual savings equal to greenhouse gas emissions from:

 **5,489,128**  
miles driven by an average passenger vehicle

 **741**  
tons of waste recycled instead of landfilled

 **260,463,965**  
number of smartphones charged

 **417**  
homes' electricity use for one year

Source: U.S. Environmental Protection Agency

"Having completed many custom projects with the PPL Business Energy Efficiency Program since 2017, we've had the opportunity to see over time how these upgrades have helped us lower our energy costs and reach our sustainability goals. We especially recommend the program to anyone looking for multiple energy-saving projects within their facilities."

**-Jamie Duksta, Purchasing Manager**