Industrial facilities use 31% of all energy consumed in the United States,¹ and, according to the U.S. Environmental Protection Agency, 30% of that energy is used inefficiently or unnecessarily.² Increasing the energy efficiency of your facility’s operations can produce significant savings that impact your bottom line. By taking steps to reduce energy consumption for lighting, heating, cooling and process equipment, you can take greater control of your facility’s expenses.

The BGE Smart Energy Savers Program offers a variety of energy efficiency programs that can help industrial facilities of all sizes—from bakeries and automobile paint shops to medical manufacturing companies—adopt energy-saving solutions like these:

- Increase your employees’ productivity and improve plant safety by enhancing lighting quality. Retrofitting lighting in manufacturing and warehousing areas with high-performance linear fluorescent or LED high-bay fixtures can improve light quality and reduce energy consumption.
- Install lighting controls, daylight dimming and occupancy sensors to decrease the lighting load on sunny days and during downtimes in office areas and warehouse spaces.
- Add custom measures such as occupancy sensors to conveyor belts to detect weight and shut equipment down during periods of inactivity. Reduce unnecessary run times of compressed air systems by fixing air leaks and installing energy-efficient controls.
- Perform regularly scheduled maintenance to optimize the performance of equipment systems and to improve plant production.

How Is BGE Helping Industrial Facilities?

The BGE Smart Energy Savers Program provides expert advice, technical services and financial incentives to reduce the upfront costs associated with energy efficiency projects that can help industrial facilities cut costs and improve operating efficiency. Financial incentives are available for such things as industrial process improvements, compressed air systems, variable frequency drives (VFDs), lighting retrofits and retrocommissioning of existing heating, ventilation and air conditioning (HVAC) systems and controls.

Typical Process Energy Use in Industrial Facilities

- Machine Drive: 60%
- Process Heating: 19%
- Electro-Chemical Processes: 10%
- Process Cooling and Refrigeration: 9%
- Other Process Use: 2%

Typical Non-Process Energy Use in Industrial Facilities

- Facility HVAC: 48%
- Facility Lighting: 37%
- Other Facility Support: 11%
- Other Non-Process Use: 3%
- Onsite Transportation: 1%

Simple Solutions for Industrial Facilities

- Walk through your facility after hours to ensure that lights are turned off.
- Use occupancy sensors to ensure that computers and other office equipment turn off when not in use.
- Install programmable thermostats to automatically adjust to preset levels.
- Check air compressor hoses and valves for leaks regularly, and make repairs if needed.
**Lighting** accounts for 37% of electric use for many industrial facilities. Although fulfilling orders and managing clients is your top priority, improving your energy performance with a lighting retrofit can not only improve the quality of lighting throughout your facility but also boost your bottom line.

The BGE Smart Energy Savers Program provides incentives to retrofit or replace lighting throughout your facility with options that not only offer immediate energy savings, but also improve overall efficiency. Installing high-efficiency, high-performance fixtures that last longer and use less energy will improve the efficiency and quality of lighting in industrial buildings. For example, replacing high-wattage, high intensity discharge (HID) high-bay fixtures with linear fluorescent T5 high-output, high-bay fixtures could save approximately 30% in energy use while maintaining or improving lighting quality. A typical industrial facility will see a project of this type pay for itself in approximately 2 years or less with the additional benefit of significantly reduced high-bay lamp replacement costs.

**HVAC systems** can account for as much as 30% of an industrial facility’s annual energy usage. Efficiency upgrades to existing HVAC systems can mean big savings on your energy bills and can add up to better productivity, increased employee morale and greater profitability. Solutions include optimizing the performance of chiller plants through the addition of VFDs to existing pumps and fans, installation of controls on existing chiller plants or replacement of inefficient chillers or rooftop units. VFDs are among the most popular HVAC upgrades within industrial facilities, with incentives that can cover up to 50% of the cost and paybacks typically within 2 years.

**Process equipment** is unique to each industrial facility. As you look for reductions in your business’s energy consumption, you will find opportunities for innovative energy efficiency improvements through BGE’s custom program offerings, which can be tailored to your individual facility. If your custom project reduces electricity use, you may be able to receive an incentive that can help move the project forward. Incentives are available to industrial customers for such things as industrial process improvements, compressed air systems, VFDs, lighting retrofits and retrocommissioning of existing systems and controls.

- **Hydraulic motors** account for more than 80% of the total energy usage on injection molding machines, and a fixed-speed system wastes significant amounts of energy. Converting motors from fixed-speed to variable-speed models causes injection molding machines to rely on the demand for hydraulic fluid power, thus reducing the amount of energy used.

- **Leaks** are a significant source of wasted energy in compressed air systems, which are common among industrial facilities. Large compressors, with 100 to 1,000 horsepower or more, supply air for manufacturing processes or to power equipment such as conveyers, jack hammers and drills. Incentives are also available for leak detection, which can save substantially on energy costs.

**Learn More**

Contact us today to learn how the BGE Smart Energy Savers Program can help you maximize your facility’s energy efficiency, simultaneously reducing costs and putting money directly back into your bottom line.

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**Sources:**
2003, Energy Efficiency Injection Modeling Operation
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