



# Electrification

Converting your equipment and processes from coal, gas and oil to electricity can improve efficiency, productivity, quality and safety.

## How Can You Transform Your Operations?

AEP will work alongside your team, plus coordinate with the Electric Power Research Institute and our vendors to identify the ideal technologies that can optimize your operations for manufacturing as well as commercial, governmental and institutional equipment and processes.










Here are the steps we'll take together:

- **Discuss** your goals for product quality, cost savings, safety and sustainability.
- **Identify** the processes in your facilities that run on coal, gas or oil.
- **Focus** on a process or equipment that can be electrified.
- **Enhance** operational performance and cost savings that can result from converting to electricity, including the use of renewable sources such as solar, wind and hydroelectric.



## What You Can Electrify — Everything

Advances in generation, transmission and storage along with motor and equipment technologies make electricity the cost-saving choice for industrial operations and transportation as well as heating and cooling in a wide range of commercial, governmental, manufacturing and institutional applications. Examples include:

Equipment or Process	Benefits of Electrical Conversion
 <b>Arc Furnaces</b>	Significantly lower the amount of energy required to make steel and add flexibility to production schedules and options for metal feedstock
 <b>Boilers and HVAC</b>	Improve comfort and reduce energy costs with heat pumps and ductless AC/heating systems in commercial and institutional buildings
 <b>Car Charging</b>	Provide electric car charging solutions to your customers or employees as well as to your fleets and the public
 <b>Forklifts</b>	Switch from propane or diesel fuel to electricity to run longer, recharge faster, lift more, and lower lifecycle costs
 <b>Heavy-duty Vehicles</b>	Reduce emissions in high-traffic areas like city centers and ports with battery-electric buses and other mass transit vehicles as well as haul trucks
 <b>Induction Heating</b>	Heat metal electromagnetically to maintain precise temperature control and experience up to 80 percent lower annual cost of operation compared to gas furnaces <sup>1</sup>
 <b>Infrared Curing and Drying</b>	Cure and dry faster while reducing emissions and producing better-quality finishes
 <b>Microwave and RF Processing</b>	Enhance the safety of food and other products in pasteurization and sterilization applications
 <b>Pipeline Compression</b>	Increase throughput and productivity while decreasing maintenance and the number of compression stations per line

1. Electrical Power Research Institute, 2018.