

# Electric Forklifts

## Lift It With Electric



### Did You Know?

Ameren Missouri customers can replace diesel-, gasoline- and propane-powered forklifts with electric forklifts to reduce maintenance and fuel costs, improve safety, and reduce air and noise pollution.

### Electric Forklifts Make Sense

- Reduce ownership, maintenance and fuel costs
- Create healthier, safer, cleaner and quieter work environments
- Improve the environmental profile
- Lift as much as internal combustion forklifts while being more responsive
- Operate outdoors, on uneven surfaces and in inclement weather

### Free Consultation

As an Ameren Missouri customer, you can get a free consultation to help you discover how making the switch to electric can enhance your business. When you schedule a consultation, you will meet with an Energy Solutions account member to:

- Review existing forklift characteristics and operation
- Discuss the benefits and advancements of electric forklifts
- Calculate your company's potential cost savings, payback and emission reductions
- Develop a customized recommendations report

### Fuel Cost Comparison

Electric Forklift		Internal Combustion Forklift	
		Diesel	Propane
Cost per Kilowatt-Hour (kWh)	\$0.085		
Unit Demand (in kilowatts)	14	Fuel Cost per Gallon	\$3.14      \$2.50
Hours Plugged in per Week	40	Average Gallons Displaced/Hour	0.54      1.33
Annual kWh	28,000	Hours Used per Week	40      40
Total Annual Fuel Cost (by converting to electric)	\$2,380	Annual Gallons	1,080      2,660
		Total Annual Fuel Cost	\$3,391      \$6,650
Estimated Annual Fuel Savings (by converting to electric)			\$1,011      \$4,270



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## Cost

- Q. How long does it take to recoup the costs of electric forklifts?**
- A. It varies, but on average it takes two years or less.
- Q. Why do electric forklifts cost more upfront?**
- A. The initial cost is higher due to the battery and charger. You are paying upfront for your fuel, which is the battery. The cost for charging equipment varies depending on the charger you install.
- Q. Why do electric forklifts cost less to fuel and maintain?**
- A. Electricity is cheaper than conventional fuel. Electric forklifts also have 90% fewer parts than their internal combustion counterparts, so maintenance is easier and repair costs are lower.

## Operations

- Q. Will the electric forklifts allow me to store more products?**
- A. Yes. Electric forklifts can operate in very narrow aisles compared to internal combustion counterparts, allowing you to configure your facility with narrower aisles to store and move more products.
- Q. Can electric forklifts operate outside or in inclement weather?**
- A. Yes. Most forklift manufacturers offer electric, pneumatic-tire forklifts, which can operate in rain, snow or mud. The battery compartments are sealed and/or contained.
- Q. What are the lifting capabilities of electric forklifts?**
- A. With lifting capabilities of up to 10,000 pounds, most electric forklifts lift as much as conventional forklifts, and some can lift as much as 40,000 pounds.
- Q. Do electric forklifts perform as well as internal combustion-powered forklifts?**
- A. Electric forklifts are more responsive and the lifting power is instantaneous. In many cases, once an operator tries an electric forklift, he or she usually prefers it over conventional forklifts.

## Batteries

- Q. What battery-charging and storage options are available?**
- A. Opportunity-charged batteries are charged for one to two hours several times a day to remain 20–80% charged, with an eight-hour equalization charge required each week. This charging method is ideal for one-, two- or light-use three-shift operations. Conventionally charged batteries are ideal for one-shift operations in which the battery runs for eight hours, charges for eight hours and cools for eight hours before it is used again. Conventional charging can be used in two- and three-shift operations, but additional batteries and a charging room will be required.
- Q. How long do batteries typically last?**
- A. Manufacturer warranties are typically for five years, as long as the batteries are maintained properly. Most dealers will work with their battery suppliers to find the right battery and charger combination.

## Environment

- Q. How do electric forklifts keep a workplace cleaner?**
- A. Electric forklifts produce zero site emissions and need less tire maintenance and replacement. A typical conversion to an electric forklift can reduce greenhouse gas emissions by 30 metric tons each year, contributing to a cleaner and healthier work environment for employees.
- Q. What about noise?**
- A. Electric forklifts are much quieter than conventional forklifts, which means greater operator awareness and fewer accidents.
- Q. Are electric forklifts safer?**
- A. Yes. You're not using combustible fuel, and your employees are not exposed to exhaust. Opportunity-charging forklifts can reduce accidents by up to 20% because the charger can be strategically located.

## Questions?

For more information, call us toll-free at 1.314.335.1240 or email us at [energysolutions@ameren.com](mailto:energysolutions@ameren.com).



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