Electric Forklift Facts:

Savings and Analysis

FirstEnergy®

Lower cost, cleaner and more reliable electric lift trucks are preferred by the majority of the material handling industry for use in warehouses, manufacturing plants and distribution centers. In fact, over 60 percent of forklifts purchased today are electric. Thanks to technological advancements such as higher-voltage, modern drive systems and fast, high-frequency charging stations, electric forklifts can outperform their internal combustion counterparts in many ways.

Consider these benefits:

- **Significant Cost Savings**: Electricity as a power source delivers significant lifecycle savings. Higher initial capital costs for an electric lift truck are quickly offset by lower fuel and maintenance costs (see Forklift Ownership Cost Comparison chart).
- **Reduced Emissions**: Electric forklifts produce zero smog-forming, particle- and greenhouse-gas emissions.
- **Improved Productivity**: Most modern electric forklifts can operate on a single battery charge for two eight-hour shifts, five days a week. Not only are they as fast and efficient as internal combustion forklifts, but in many applications they perform better, improving operational productivity.
- **Enhanced Employee Safety, Health and Satisfaction**: Employees benefit from the quiet, emission-free, vibration-free operation of electric lift trucks.
- **Increased Efficiency and Fuel Savings**: Electricity is more energy efficient than gasoline, diesel fuel and most sources of propane and eliminates on-site fuel storage.

Business decisions today are based on cost, customer service, employee productivity, sustainability and several other factors. Few available technologies deliver measurable improvement in nearly every metric the way electric forklifts can.

61%	**Percentage of forklifts purchased nationally that are electric**
75%	**Cheaper to operate with electricity vs. propane fuel**
40%	**Reduced maintenance costs with an electric lift truck**
0	**Emissions produced by an electric forklift**

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FAQs

What infrastructure considerations are needed for charging electric lift trucks?

Today's high-frequency charger technologies, coupled with sensors, monitoring and communication ports, can optimize the power requirements for electric forklift installations. They also are more energy efficient and can save space while eliminating the need for on-site fuel storage. Fast charging stations typically require three-phase power, common in most industrial facilities.

How do electric forklifts compare to internal combustion units?

As shown in the table below, forklifts are classified by size and fuel. Classes 1 through 3 are battery-powered electric lift trucks and Classes 4 and 5 are powered by internal combustion engines, typically fueled by propane or diesel. Class 1 electric forklifts can do the work of Class 4 internal combustion forklifts. Class 1 electric lift trucks also can replace Class 5 internal combustion lift trucks, often used outdoors.

Forklift Classes

All-Electric			Internal Combustion Engine (ICE) - Propane & Diesel	
Class 1	**Class 2**	**Class 3**	**Class 4**	**Class 5**
Electric Counterbalanced Warehousing, manufacturing	Electric Narrow Aisle High-density storage, narrow-aisle buildings	Electric Hand Trucks Moving pallets	ICE Counterbalanced with Cushion Tires Indoor warehousing and manufacturing, outdoor on smooth surfaces	ICE Counterbalanced with Pneumatic Tires Indoor and outdoor warehousing and manufacturing

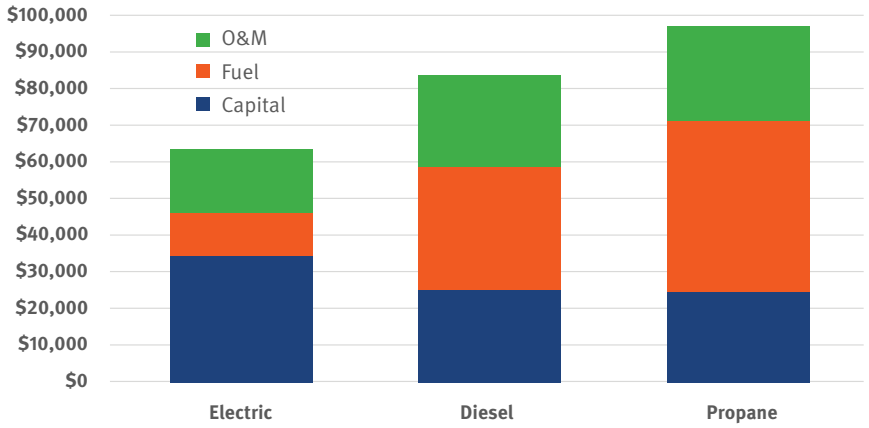
Who can I call for more information about electric forklifts?

Your Ohio Edison customer support representative can provide a free cost analysis and more information about electric lift trucks.

Forklift Ownership Cost Comparison*

Truck Capacity
6,000 pounds
Operating Hours
Hours/Day: 8
Days/Week: 5
Weeks/Year: 52
2,080 Hours/Year
Energy Prices
Propane: $2.20/Gallon
Diesel: $2.50/Gallon
Electricity: $0.12/kWh
Maint. Costs per Op. Hour
Propane: $2.00
Diesel: $2.00
Electric: $1.25

*Data and calculations provided by EPRI Lift Truck Comparison Calculator.



Electric vs. Diesel — **Diesel:** $83,581 **Electric:** $63,140
Savings: $20,441 + 134,775 lbs of Carbon Dioxide + 50,560 lbs of Carbon Monoxide

Electric vs. Propane — **Propane:** $97,271 **Electric:** $63,140
Savings: $34,131 + 127,308 lbs of Carbon Dioxide + 49,295 lbs of Carbon Monoxide

A lift truck calculator can be found online at: http://et.epri.com/Calculators_LiftTruckComparison_with_cap.html