

Truck Refrigeration Units

Cool It With Electric



Did You Know?

Electric-standby truck refrigeration units (eTRUs) give operators the option to cool perishable shipments by plugging in instead of running a diesel engine.

eTRUs Make Sense

- eTRUs are much quieter than diesel engines, reducing distraction for personnel.
- Reducing diesel idling results in a cleaner, healthier work environment by producing zero site emissions.
- eTRUs use fewer mechanical parts when operating, which can reduce maintenance costs by 15%.

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 TRU characteristics, operational habits and available infrastructure
- Discuss the benefits and advancements of eTRUs
- Receive full cost-benefit and emission-reduction analysis
- Develop a customized recommendation report

Questions?

For more information, call us at 1.314.335.1240 or email us at energysolutions@ameren.com.

Sample Annual Fuel Cost Comparison

480V eTRU		100% Diesel TRU	
Cost per Kilowatt-Hour (kWh)	\$0.085	Fuel Cost per Gallon	\$3.14
Unit Demand (in kilowatts)	11.14	Average Gallons Displaced/Hour	1.16
Hours Plugged in per Week	30	Hours Idling per Week	30
Annual kWh	16,710	Annual Gallons	1,740
Total Annual Fuel Cost (by converting to electric)	\$1,420	Total Annual Fuel Cost	\$5,464
Estimated Annual Fuel Savings (by converting to electric)		\$4,044	

Reduced Cost

- eTRUs and related installation costs usually pay for themselves in less than two years.
- The incremental cost for an eTRU is typically between \$350 and \$1,000. The cost to install an outlet for an eTRU can vary from about \$500 to \$7,000, depending on the existing electrical infrastructure.
- eTRUs cost less to fuel and maintain because electricity is cheaper and more efficient than diesel, and fuel costs while idling can be reduced by up to 80%.

Upgraded Infrastructure

- Warehouses and other large facilities typically have enough power to fuel an eTRU. Sometimes, a short extension or transformer upgrade is required. This will depend on factors such as the age of the facility, physical location of dock and yard areas in relation to electrical service, mix of dock versus yard spaces, number of outlets, and operational features. Investing in upgrades for eTRUs may expand electric plug-in capacity for other needs at your facility, as well.

Improved Operations

- Installing breakaway plugs and other safety measures can help prevent damage to the electric infrastructure when unplugged.

Environmental Benefits

- Electrification of refrigeration units when parked reduces toxic air pollution.
- A typical eTRU can reduce greenhouse gas emissions from idling by 14 tons each year.*
- eTRUs reduce noise, which means greater operator awareness and fewer accidents. Less noise is better for the surrounding community, too.*

Frequently Asked Questions

Q. How much electrical infrastructure is needed?

A. Warehouses and other large facilities typically have enough power to fuel an eTRU. Sometimes, a short extension or transformer upgrade is required.

Q. What happens if a driver forgets to unplug from an outlet?

A. Installing breakaway plugs and other safety measures can help prevent damage to the electric infrastructure when unplugged.

Q. What about the cost of eTRUs?

A. eTRUs cost more than diesel-powered refrigeration units. However, the monthly payment to finance an eTRU is often less than the avoided diesel cost.

* EPRI. Market and Technology Assessment of Electric Transport Refrigeration Units. Palo Alto, CA: 2015. Product ID: 3002006036.

