

Plugging into the Grid Saves Big

As more companies in the refrigerated transport sector are discovering, the Vector™ system's all-electric architecture is perfectly suited for stationary electric standby operation, where the unit plugs into grid power and runs like a large, sophisticated electric refrigerator.

With the diesel engine off while the trailer is being used for loading, staging or cold storage, fuel is conserved, exhaust emissions are eliminated and noise is reduced. And now, electric standby isn't just for the loading dock. As discussed in our [main story](#), long-haulers can take advantage of electric standby operation when parked at some truck stops.



In addition to being an environmentally sound strategy, standby operation also reins-in operating costs because electricity is less expensive than diesel fuel.

Since the Vector system was introduced in North America, that savings has ranged from 40 to 70 percent. Presently, the savings with the Vector system is approximately 67 percent, based on diesel fuel costs versus average commercial electricity rates.

Reducing the engine's runtime provides maintenance savings as well, extending engine preventive maintenance service intervals and adding to the life of major components, such as the engine and generator, which are not used during electric standby.

Dealer Locator



Electrified Truck Stops Power Hotel Loads And Now Refrigeration Units, Too!

Visit any campsite or marina and you'll see RVs and boats plugged into power pedestals so their owners don't have to idle the engines to run accessories.

At airport gates, planes are plugged in to run electrical loads to save fuel and cut-down on noise.



What about truckers at truck stops? There's a load of good reasons for them to take advantage of electrical power, too, and thanks to a new federally funded program, this will soon be possible.

The Shorepower Truck Electrification Project (STEP) — is currently developing sites along major freight corridors. The sites provide power required for tractor hotel loads, and now key sites are also being equipped with 460-volt power supplies, specifically to support the growing population of refrigerated trailers equipped with 460-volt electric standby.

That means drivers hauling cross-country with electrically powered refrigeration systems, such as the Vector™ 6500 or Vector 6600MT hybrid units from Carrier Transicold, can pull into select electrified truck stops and power the units with AC current, just the same as plugging in to provide hotel power to the cab.

[Learn more about the STEP program.](#)

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What about truckers at truck stops?

Truckers have a load of good reasons to use electrical connections to power accessories instead of idling their diesel engines at truck-stop parking spaces. Electricity can operate heating, air conditioning and in-cab conveniences with less noise and fewer emissions. That conserves fuel for the highway and also results in less wear and tear on the engine. It also helps them comply with laws limiting hours and places where trucks can idle.



A federally funded program – the Shorepower Truck Electrification Project (STEP) – is currently developing sites along major freight corridors. The sites provide power required for tractor hotel loads, and now key sites are also being equipped with 460-volt power supplies, specifically to support the growing population of transport refrigeration units with 460-volt electric standby (eTRUs). That means drivers hauling cross-country with eTRUs, such as Carrier Transicold's Vector™ 6500 single-temp or Vector 6600MT multi-temp unit, can pull into select electrified truck stops and achieve full cooling capacity by powering their refrigeration units with AC current, just the same as plugging in for cab hotel power.

"We are delighted that the STEP program has recognized the growing adoption of electric-standby-equipped refrigeration units such as the Vector," said David Kiefer, director of marketing and product management for Carrier Transicold. "Installation of 460-volt power supplies helps to reduce costs for the trucking industry while fulfilling the Vector unit's full potential as an EcoDrivenSM, environmentally sound solution for transport refrigeration."

The "Current" Solution at Truck Stops

The current wave of STEP development includes facilities along Interstates 5, 10, 20, 70, 80, 90 and 95, adding approximately 1,200 parking spaces with electrical connections. Cable TV and wireless internet service are also available in some locations.

As of January, 15 locations were open for business, and another 45 will open before the end of 2012 according to terms of the U. S. Department of Energy (DOE) grant which funds the demonstration project. In April, Sapp Bros Travel Center in Omaha, Neb., will become the first to offer 460-volt service, but 13 more eTRU-capable locations are planned from New York to California in 2012 alone. Cascade Sierra Solutions is administering the project, which is being funded by the DOE through the American Recovery and Reinvestment Act. Shorepower Technologies is developing the infrastructure and operating the system.

According to Shorepower Technologies, truck stops in the United States account for another potential 500 to 1,500 viable locations, which would create a complete network along major highways. The company's goal is to have enough locations that truckers can expect to find electrified parking spaces at most places they stop for the night. Shorepower Technologies had already developed 10 sites with 400 spaces before the start of STEP, and it plans to continue developing sites over the next few years, in addition to those being added through STEP.



Along with the infrastructure development, more truck manufacturers are integrating connections into their vehicles' internal electrical and HVAC systems so that they work seamlessly with truck stop electrification.

Meanwhile, Carrier Transicold continues to provide innovative technology and solutions via the Vector trailer refrigeration units that can operate from grid power when parked at loading docks, warehouses, and now, truck stops out on the road.

[Click here](#) for a map of Shorepower Truck Stop Electrification (TSE) Sites and a list of existing and planned truck stops with electrical connections at parking spaces.

For more information on the STEP program, visit www.the-step-project.org.