

Reducing Engine Idling at Truck Stops

More than 500,000 heavy duty long-haul diesel trucks with sleeper cabs travel the United States. The drivers of these trucks are required to take safety rest periods at truck stops or rest areas every day. Most truck drivers leave their engines running during these rest periods to provide power for heat, air conditioning, and other systems. This engine idling burns nearly a billion gallons of diesel a year, releases significant amounts of air pollution and greenhouse gases, and increases fuel and maintenance costs to the truck owner.

Why is it important to reduce truck engine idling?

Diesel exhaust from engine idling contains substances that are harmful to human health. These include tiny particles known as “fine particulate matter.” These particles are so small that they can be inhaled deep into the lungs, where they can cause serious health problems. Diesel exhaust also contributes to the formation of ozone air pollution, which can cause numerous respiratory health problems. Health studies have shown that diesel exhaust contributes to chronic respiratory problems such as asthma, and may cause cancer.

In addition to its health effects, diesel exhaust contributes to global warming and haze.

How will reducing truck engine idling help?

Over a period of one year, the average long-haul truck emits 20 tons of air pollution from idling alone. Aside from reducing air pollution, cutting back on idling would reduce fuel and maintenance costs for truck owners, reduce dependence on foreign oil, and even enhance the safety and comfort of the drivers by lessening vibration and noise during rest periods.

If they turn their engines off, how will truck drivers get the power they need for heat, air conditioning, and other systems?

There are other technologies that can be used to provide power. One such technology is called Truck Electrified Parking (TEP). TEP provides grid-supplied electrical power through electrical outlets mounted on pedestals at the parking space (see the pictures on the following page). Trucks can plug into these outlets at truck stops instead of idling. They will then have power to operate heating, air conditioning, and other electrical appliances such as televisions, microwaves and refrigerators without running their main engines.

WHY IT MATTERS

The diesel exhaust from idling trucks contains fine particles that can harm your health. Diesel exhaust also forms smog, which can cause many breathing problems; and contributes to global warming and haze.

For general information about diesel exhaust, please visit the Department of Ecology web site at <http://www.ecy.wa.gov/programs/air/cars/DieselEmissionPage.htm>.

Contact information:

Frank Van Haren
Department of
Ecology
(360) 407-6870
fvan461@ecy.wa.gov

Jeff Kim
Shurepower, LLC
(503) 892-7345
jkim@shurepower.com

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Focus on Engine Idling at Truck Stops



How much does TEP cost the drivers?

The cost is around a \$1.00 per hour, compared to more than \$4.00 for a gallon of diesel. Long haul trucks burn an average of one gallon of diesel per hour while idling. So for every hour drivers use the TEP service rather than idling, they save more than \$3.00.

Is TEP available for use now?

Yes! Two truck stops in Washington and three in Oregon now have electrified parking spaces for truckers to plug into when they take their rest stops. A fourth truck stop in Oregon, the 7 Feathers Truck and Travel Center, will begin offering the service at a later date. The map at right shows the location of the truck stops offering the TEP service.

At each of the electrified parking spaces there will be 120-volt AC electrical power. Truck drivers resting at these stops will be able to shut down their main engines and still operate on-board devices such as heaters, air conditioning, televisions, microwaves, and refrigerators. Services may also include Internet, phone and cable TV.

Will any special on-board equipment be needed to use the TEP service?

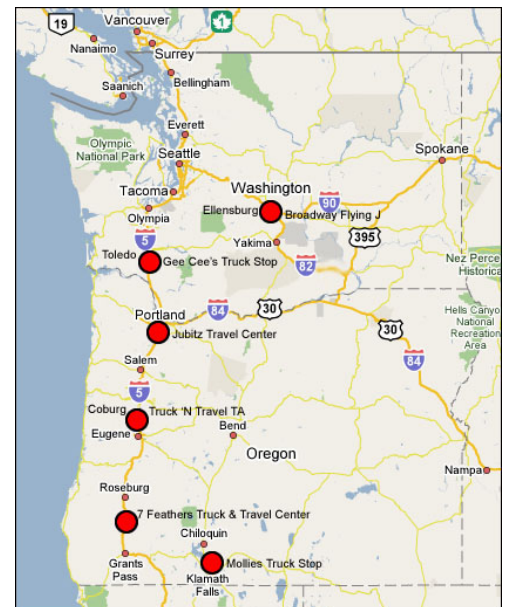
To use TEP services, a driver will need to have at least three things:

1. A heavy-duty extension cord to plug into the system;
2. A 120 volt AC electrical heating, cooling or other electrical appliance in the cab; and
3. A Shurepower account and user card or other major credit card.

How will this project benefit Washington and Oregon residents?

Over a five-year period, using these TEP parking spaces just 50 percent of the time will result in:

- Total air pollution and greenhouse gases reduced by more than 55,000 tons.
- Engine idling reduced by more than five million hours.
- Diesel fuel consumption reduced by more than five million gallons.
- Savings to truck or fleet owners of more than 15 million dollars in fuel costs.
- Greater comfort and safety for truck drivers.



Locations of truck stops with electrified parking spaces in Oregon and Washington