

To get a sense of the potential environmental benefits of **truck stop** electrification, you can look at federal studies on the amount of carbon dioxide, nitrous oxides and other emissions spewed out annually by thousands of idling diesel trucks. Or you can visit a place like the Derrick Truck Stop, off I-85 in Rowan County, and just take a few deep breaths.

Diesel exhaust fumes create a pungent haze. You can smell it and see it. What you can't see are the billions of tiny particles -- each a fraction of the size of a human hair -- that make up those fumes and lodge in human lungs. It's those tiny particles that researchers are increasingly concerned about as they study the link between air pollution and chronic respiratory illnesses. What we can't see can definitely harm us, in this case -- both from a health standpoint and in terms of lost economic development stemming from potential federal sanctions.

The \$100,000 federal grant announced Tuesday to help launch a truckstop electrification at Derrick holds the promise of helping to reduce those emissions, while making Rowan County part of a model program that federal officials hope to spread to truck stops across the country.

Most people aren't familiar with truckstop electrification, which enables truckers to shut down their engines during longer stops and hook up to an external source for heating and air-conditioning their sleeper cabs, as well as plugging in electrical appliances and phones. It's a relatively new strategy in the battle against pollution, but it holds a lot of potential to help improve air quality -- providing the technology proves popular enough among truckers. The electrification program at Derrick's would be the first in the Piedmont region and only the second in the state, according to staff members with IdleAire Technologies, a Knoxville, Tenn.-based company that installs electrification systems.

A single idling diesel truck might not seem like much of a problem. But with thousands of trucks idling for hours at the estimated 5,000 truck stops around the nation, it adds significantly to overall pollution. The U.S. Department of Energy has estimated that idling trucks belch out more than 11 million tons of carbon dioxide annually, 180,000 tons of nitrogen oxides and 97,000 tons of carbon monoxide. Those totals aren't spread evenly across the nation, obviously, but are heavier along busy trucking corridors such as I-85 -- which should be of particular concern to Rowan residents.

Cleaner air isn't the only payoff if this program succeeds, however. Trucking companies stand to gain from reduced fuel costs, reduced maintenance on their equipment -- and happier drivers who will have more conveniences available to them during their long sessions on the road. It's also important to note that, while federal grants are helping to get electrification projects on the road, private industry developed the technology and installs and operates it.

Since the electrification program is just getting rolling around the country, it will be a while before its success can be gauged. But, thanks to the EPA grant and the initiative of local and regional officials who proposed the program here, Rowan County stands to benefit sooner rather than later.