

## **Benefits of Switching School Buses to Biodiesel**

Olivia Spildooren TAP into Flemington/Raritan November 29, 2017



To the editor:

When you put your child on a school bus, you expect their bus driver to deliver them safely to school. And they do, they get them to the school. However, there's an invisible predator that threatens your child's health each time they step onto the school bus. That predator is particulate matter.

Particulate matter is a pernicious beast. While we tend to think about the big things that can hurt us (vehicular accidents, guns, knives) but we tend to forget that tiny things (like bacteria, viruses, and particulate matter) can do even bigger damage. The smaller the particulate matter, the greater harm when inhaled, sticking to the lungs and being known to cause respiratory problems, hypertension, reduce lung function, or worsen asthma. Is this something we want growing children to be exposed to on a regular basis? This is an issue as I see kids getting on buses each day, and I myself rode a school bus for eight of my school years. But what can be done to help?

A school district in Medford County already took initiative and changed 61 school buses to be solely run on B20 (20 percent biodiesel) diesel. Biodiesel is derived from plant or animal fats that can come from used cooking oil or deep fryer grease

The school district bought a Thomas Built bus back in 1997 in order to test how biodiesel compared to regular diesel. They found that the bus ran well, didn't need any major engine work and stayed mechanically sound for 13 years. In 2001, after seeing the smooth conversion of fuel sources, the schools decided to run all of its diesel engines vehicles with biodiesel.

Not only are 25 million American children's health being compromised by polluted air from diesel school buses according to American Journal of Respiratory and Critical Care Medicine but also the health of the plant. Greenhouse gas (GHG) is a general term for many gases such as CO2 (carbon dioxide), N2O (nitrous oxide), or CO (carbon monoxide), which contribute to the global greenhouse effect. Many greenhouse gases are emitted by tailpipes along with the previously mentioned particulate matter.

However, GHGs are not inherently bad. The greenhouse effect is essential; it is what keeps the earth from being a ball of ice. The greenhouse effect uses the gases to trap heat in the atmosphere and prevent it from being lost to space. The problem today, however, is that humans have emitted more greenhouse gases than natural. These gases can stay in the atmosphere for a long time (100 years for CO2 and 2,500 years for CH4). Therefore, many argue that the increase of CO2 caused by human combustion of fossil fuels (like gasoline) contributes to global warming.

I argue that we must do our part to reduce the amount we emit to safeguard the health of children and the Earth. In 2015, according to the EPA, transportation contributed to one-third of the CO2 emissions. Biodiesel is also a great option for reducing GHG emission.

We must look to alternate sources of energy because our reliance on gas is unsustainable since it's in limited supply. Once the last barrel of oil is extracted there will be no more for about another million years. Alternate forms of energy, that will not only cut our reliance on a nonrenewable resource but also cut down the number of greenhouse gases emitted.

However, biodiesel's claim as a "greener" fuel is not without controversy. What is stopping big companies from making the switch for all their vehicles? Number one: big oil companies are not going to promote the use an alternate source of fuel. They have economic motivations to keep people using oil. While they look to make a profit now, they are not looking to the future when oil runs out or the high costs that climate change will inevitably cause.

With this in mind, why not make the simple change in Hunterdon when there are more than 8,000 school kids in the district's elementary, middle and high schools unknowingly being exposed to this environmental harm?