

Alert

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Alert is a monthly update on transportation and air quality planning activities in the Delaware Valley.



Air Quality Regulations

U.S. Supreme Court Issues Rule on EPA Greenhouse Gas Regulations

On June 24, 2014, the U.S. Supreme Court issued a ruling in the case of *Utility Air Regulatory Group vs. EPA* that imposes limits on the U.S. Environmental Protection Agency's (EPA) ability to regulate greenhouse gas (GHG) emissions from power plants and industrial sources.

The EPA had sought to use two existing permitting programs for industrial facilities to regulate carbon emissions from stationary sources. EPA proposed to use the "Prevention of Serious Deterioration" (PSD) and "Title V" emissions permitting programs to require that any facilities emitting more than 100,000 tons of GHGs per year be required to implement energy efficiency upgrades and install the best available control technologies to limit GHG emissions.

The Court ruled that the EPA could include GHG emission control requirements for stationary sources that already required permits for other kinds of air pollution, such as nitrogen dioxides or sulfur dioxide, under the PSD and Title V permitting programs, but that the EPA would not be able to require permits solely for GHG emissions under those programs.

Both sides of the case are claiming victory with the decision. During oral arguments, Justice Roberts made it clear that the Court will not reconsider whether or not the EPA has the authority to regulate GHGs under the Clean Air Act and the ruling is expected to have no impact on the *Clean Power Plan*, aimed at regulating GHGs from existing power plants, that was announced by the EPA in June 2014. The *Clean Power Plan* sets broad GHG emissions targets and goes beyond limiting emissions from individual facilities. Emissions reductions from that plan are anticipated to be much more comprehensive than the program involved in this court case.

The EPA estimates that the ruling will allow the agency to regulate up to 83 percent of U.S. carbon emissions, down from 86 percent had the EPA regulation withstood the court challenge.

Industry groups hailed the decision as a victory, if a minor one, over the EPA's continuing efforts to regulate GHGs from numerous power generation and industrial sources.

For more information on the EPA's GHG regulations, please visit:
www.epa.gov/climatechange/



Save the Date

**Wednesday,
July 30, 2014**

**U.S. EPA Public Hearing
Clean Power Plan
9:00 am**

Location of Meeting:

*William Jefferson Clinton
East Building,
Room 1153
1201 Constitution Avenue
Washington, D.C.*

**Tuesday & Wednesday,
August 19 & 20, 2014**

**Northern Transportation
And
Air Quality Summit**

Location of Meeting:

*Southwestern Pennsylvania
Commission Offices
2 Chatham Center
112 Washington Place
Pittsburgh PA*



Transportation and Air Quality

Recent Study Shows that Electric School Buses that Power the Electric Grid Could Save School Districts Millions

A recent study authored by graduate students at the University of Delaware's College of Earth, Ocean, and the Environment and published in the journal *Applied Energy*, found that electric school buses can provide school districts with significant environmental, student health, and even economic benefits, especially if the buses are equipped with vehicle to grid (V2G) technology that allows the buses to discharge their batteries back into the electric grid when the buses are not in use.

The authors analyzed existing school bus routes in the Red Clay School District and calculated costs associated with fuel, electricity, and batteries, as well as pollution-related health care costs and other expenses.

Diesel school buses have an average fuel economy of six miles per gallon, while emitting harmful diesel fumes directly into the environment, where the emissions will be experienced by students. The electric buses do not have tailpipe emissions and school buses have a favorable drive cycle for electric vehicle technology. The routes are within the battery range of the vehicles and the buses return to the same depots each evening.

The authors found that when they started accounting for the various operational, environmental, and health costs between the two bus types, a medium sized district, such as Red Clay, would save \$6,070 per bus seat, or \$36 million over the 14-year lifespan of the bus when accounting for the environmental and public health benefits, or \$5,700 per seat just based on operational savings. This calculation accounts for a price differential of \$110,000 for a traditional diesel bus compared to \$260,000 for a V2G capable electric bus with a 70-kilowatt onboard charger, as well as capital investment, battery, and charging costs. These costs are offset by funds generated by selling energy from the buses' batteries back into the electric grid, as well as offsetting the high price of diesel fuel for buses.

Electric school buses are still uncommon, with the first Trans Tech all electric buses being tested in California in early 2014, but the authors feel that the V2G technology will change the economics of the electric school bus and savings for school districts could promote adoption of the technology.

For more information on the University of Delaware's research on vehicle to grid technology, including the research on electric school buses, please visit: www.udel.edu/v2g.



Air Quality Information

Rebates Still Available for Pennsylvania Residents Purchasing Alternative Fuel Vehicles

As of June 19, 2014, the Pennsylvania Department of Environmental Protection (PA DEP) has over 350 rebates available for Pennsylvania residents who purchase new electric, plug-in electric hybrids, natural gas, and other alternative fuel vehicles. The rebates range from \$500 to \$2,000, depending on the fuel type of the vehicle, and vehicles must be purchased by December 31, 2014. Rebates will be available until the end of the year or until the rebates are all claimed.

For more information on the PA DEP Alternative Fuel Vehicle rebate program, please visit: www.depweb.state.pa.us and search AFV.



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