



# News Release

## EPA Models Could Result in Higher Ozone and Air Toxic Levels

**March 20, 2015**—[The Environmental and Energy Study Institute](#) (EESI) commends the EPA for addressing the health effects of ground level ozone in their proposed update to the agency's ozone air quality standards. However, along with the Urban Air Initiative, the Energy Future Coalition, and the Clean Fuel Development Coalition, EESI cautions that the tools which states are tasked to use in crafting their State Implementation Plans (SIPs) for ozone and other air toxics are flawed. If used by state regulators, these models would force air quality policies and practices that would actually cause ozone and other air toxins levels to increase. Additionally, the role of gasoline aromatic hydrocarbons (gasoline aromatics) in ozone formation are being ignored by the EPA.

Ozone, commonly referred to as smog, is a complex mixture formed when air pollutants react with each other in the presence of sunlight. In the stratosphere, ozone prevents harmful ultraviolet light from reaching the earth's surface. But ground level ozone impairs lung functioning and contributes to increased incidences of asthma and other lung diseases, especially among children and the elderly.

Ozone precursors can result from industrial and chemical processes present in manufacturing, agriculture, and power generation, as well as vehicle emissions. Taking steps to lower the emissions of ozone precursors from these sectors will help individuals breathe easier. However, [in comments to EPA on its proposed ozone regulations](#), EESI argues that the very tools states must use to craft their implementation plans may severely miscategorize or undercount the causes and sources of these precursors, already the prescribed solution actually exacerbates the solution. EPA will require states to use the redeveloped MOVES2014 model in ozone, particulate matter, NOx and carbon monoxide in their implementation plans. However, in a Society of Automotive Engineers paper, engineers from Ford and GM found that the fuel studies used by EPA to design the model do not reflect real world conditions.

"Despite renewable fuels such as ethanol being clean burning, use of the MOVES2014 model would result in cleaner burning renewable fuels being labeled as worse for air quality than gasoline," commented EESI Policy Associate Jessie Stolark. "The effect of widespread adaptation of MOVES2014 would be to abandon cleaner alternatives to aromatics, such as ethanol." To achieve the greatest public benefit to health and welfare through reducing ozone and other air toxics, the administration needs to revisit the MOVES2014 model.

The administration is also ignoring the outsized role that gasoline aromatics play in urban air toxics, including the formation of ozone precursors. A mixture of benzene, toluene, ethyl benzene, and xylene (the BTEX complex), these gasoline aromatics form 25 to 30 percent of the volume of gasoline. Because these aromatics boost the octane value of gasoline, oil companies are reluctant to dispense with them, despite their known harmful effects. Gasoline aromatics contribute to the formation of the predominant ozone precursors in the urban environment as well as the formation of polycyclic aromatic hydrocarbons (PAHs), a known neurotoxin that has been linked to developmental disorders such as ADHD and autism.

According to EPA's own calculations, 45 million individuals live, work or attend school within 300 feet of a major roadway. Research has found that gasoline-powered vehicles are by far the largest source of aromatic hydrocarbons in the United States. Therefore, removing gasoline aromatics from fuel would dramatically reduce emissions of ground level ozone *and* other air toxics, thereby benefitting the health of millions of Americans.

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