

Statement From the American Lung Association in Georgia on Biomass Combustion December 2, 2019

The American Lung Association does not support biomass combustion for electricity production, a category that includes wood, wood products, agricultural residues or forest wastes, and potentially highly toxic feedstocks, such as construction and demolition waste. Burning biomass can emit recognized air pollutants, including particulate matter (PM) and other carcinogens, which cause premature death and endanger respiratory health. Because of the multiple, ongoing risks to human health, the Lung Association urges Georgia Renewable Power to consider clean, renewable options to fuel its Madison County and Franklin County plants instead of biomass.

Biomass is far from “clean” – burning biomass creates air pollution that causes a sweeping array of health harms, from asthma attacks to cancer to heart attacks, resulting in emergency room visits, hospitalizations, and premature deaths. Among the most dangerous of these emissions is particulate matter, also known as soot. These particles are so small that they can enter and lodge deep in the lungs, triggering asthma attacks, cardiovascular disease, and even death. Particulate matter can also cause lung cancer. Railroad ties, like other wood products, can contain other chemicals from its years that may be highly toxic, including particulate matter and other carcinogens. Particulate matter is a recognized carcinogen, as well as a cause of premature deaths.

Biomass emissions contain fine particulate matter, sulfur oxides, carbon monoxide, volatile organic compounds (VOCs), and various irritant gases such as nitrogen oxides that can scar the lungs. Like cigarettes, biomass emissions also contain chemicals that are known or suspected to be carcinogens, such as polycyclic aromatic hydrocarbons (PAHs) and dioxin.

Burning railroad crossties containing creosote (or coal tar as it is frequently described), as is proposed by Georgia Renewable Power for its Madison and Franklin County biomass plants, adds additional unacceptable health risks due to the large increase in VOCs from the creosote coal tar resulting from burning of the crossties. These compounds in railroad crossties add to health threats from particulate matter and other toxins already produced by biomass power plants.

The National Institute of Environmental Health Sciences (NIEHS) has determined that coal tars are human carcinogens. Several studies reviewed by NIEHS show that occupational inhalation of coal tar fumes results in excess cases of lung cancer as well as cancers of the bladder, kidney, and digestive tract. NIEHS states that coal tars may release toxic gases when they are burned. The Agency for Toxic Substances and Disease Registry (ATSDR) has also concluded that coal tar creosote can cause some cancers due to human contact. ATSDR states that VOCs, when released from creosote, are rapidly absorbed through the lungs, stomach, or intestines.

For vulnerable populations, such as people with asthma, chronic respiratory disease, and those with cardiovascular disease, biomass and diesel emissions are particularly harmful. Even short exposures can prove deadly. An increasing number of studies are pointing to the direct impact of increase particle pollution levels and an increase in heart attacks. The particles produced by biomass and diesel emissions are extremely small and are unable to be filtered out of our

respiratory system. Instead, these small particles end up deep in the lungs where they remain for months, causing structural damage and chemical changes. In some cases, the particle can move through the lungs and penetrate the bloodstream.

The potential for increases in local particle pollution emissions due to the expansion of biomass is a significant concern for local communities, and especially those already impacted by asthma and other respiratory and cardiovascular illnesses. The American Lung Association supports the protection of all people from the harm of air pollution, especially those who suffer disproportionate exposure from local sources of emissions. The American Lung Association recognizes that major sources of air pollution are often located near where many people, especially communities of color or lower income, live and work, which means their exposure to pollutants emitted can be more immediate and disproportionately harmful.

The use of energy is essential to the growth and functioning of the U.S. economy and for the quality of life enjoyed in the United States. However, certain energy practices, fuel sources and technologies place a heavy toll on human health and the environment, impacting the lives of millions of people, including those who are most vulnerable to harm. If biomass is combusted, state-of-the-art pollution controls must be required.

The mission of the American Lung Association is to save lives by preventing lung disease and improving lung health through research, education and advocacy. For 115 years, the American Lung Association has led the fight for healthy lungs and healthy air. Thank you for the opportunity to offer comment.

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