September 13, 2016

Dear Senator/Representative:

The undersigned public health, medical and nursing organizations urge you to oppose policies that would encourage or expand the use of biomass for electricity production. 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.

Biomass uses fuel sources, or feedstocks, whose combustion harms human health, including wood products, agricultural residues or forest wastes, and highly toxic construction and demolition waste. Burning biomass from any source generates immediate dangerous air pollution that puts health at risk.

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.[i] Particulate matter can also cause lung cancer.[ii]

Biomass combustion also creates nitrogen oxide emissions, which are harmful in their own right and also contribute to the formation of ozone smog and particulate matter downwind.[iii] Ground-level ozone pollution can trigger asthma attacks and cause premature death, and newer research shows possible links to reproductive and central nervous system harm.[iv]

Burning biomass also creates carbon monoxide, which leads to headaches, nausea, dizziness, and in high concentrations, premature death;[v] and carcinogens, including benzene and formaldehyde.[vi]

The dangerous air pollution from burning biomass endangers some people more than others. Millions of infants and children, older adults, individuals with respiratory or cardiovascular disease or diabetes, and individuals with lower incomes face a higher risk of suffering serious health effects from these pollutants.[vii]

In addition to emitting harmful conventional pollutants, some biomass processes also increase carbon emissions that contribute to climate change. The U.S. Environmental Protection Agency's Science Advisory Board is currently evaluating available research to answer questions about the net carbon emissions that result from burning biomass. In their 2012 letter to EPA from an earlier review, the Science Advisory Board noted that "[c]arbon neutrality cannot be assumed for all biomass energy a priori" and described the processes that can make biomass increase carbon emissions.[viii]

Scientists must be allowed to continue to review these impacts. The United States is already experiencing health harms as a result of climate change. Increased temperatures lead to heat-related illnesses and deaths and help make the formation of ground-level ozone more likely. More droughts lead to elevated particulate matter levels. More frequent and severe extreme weather events harm both physical and mental health. These trends are projected to continue, along with increased health threats from vector-borne diseases; food insecurity; food- and water-borne diseases; worsened allergy seasons; and many more.[ix]

Burning biomass creates proven harm to human health through direct air pollution impacts, as well as the potential for increasing climate change. Because of those threats, the undersigned public health, medical and nursing organizations ask that you oppose policies that would encourage or expand the use of biomass for electricity production. We urge you to protect human health by supporting the development of truly clean, carbon-free sources of energy such as solar energy and wind power.

Sincerely,

Allergy & Asthma Network

American Academy of Pediatrics

American Lung Association

American Public Health Association

Asthma and Allergy Foundation of America

National Association of County & City Health Officials

National Environmental Health Association

Physicians for Social Responsibility

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[i] U.S. Environmental Protection Agency. Integrated Science Assessment for Particulate Matter. 2009.
[ii] World Health Organization International Agency for Research on Cancer. IARC Monograph on the Evaluation of Carcinogenic Risks to Humans. Volume 109, Outdoor Air Pollution. Lyon: IARC (in Press).
[iii] U.S. Environmental Protection Agency. Integrated Science Assessment for Oxides of Nitrogen-Health Criteria. 2016.
[iv] U.S. Environmental Protection Agency. Integrated Science Assessment of Ozone and Related Photochemical Oxidants. 2013.
[v] U.S. Environmental Protection Agency, Integrated Science Assessment for Carbon Monoxide, 2010.
[vi] Naeher LP, Brauer M, Lipsett M, Zelikoff JT, Simpson CD, Koenig JQ, Smith KR. 2007. Wood smoke Health Effects: A Review. Inhalation Toxicology. 19:67-106.
[vii] U.S. Environmental Protection Agency, Integrated Science Assessment for Particulate Matter. 2009.
[viii] Swackhammer, Deborah L. and Madhu Khanna, letter to Lisa P Jackson, Administrator, U.S. Environmental Protection Agency on SAB Review of EPA's *Accounting Framework for Biogenic CO_2 Emissions from Stationary Sources*. September 28, 2012.
[ix] USGCRP, 2016: The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment. Crimmins, A., J. Balbus, J.L. Gamble, C.B. Beard, J.E. Bell, D. Dodgen, R.J. Eisen, N. Fann, M.D. Hawkins, S.C. Herring, L. Jantarasami, D.M. Mills, S. Saha, M.C. Sarofim, J. Trtanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, DC, 312 pp. http://dx.doi.org/10.7930/J0R49NQX