



Carbon Emissions from Forest Residue-Based Power Are 115% Lower Than Natural Gas in First Year; 98% Lower Over 100 Years

Washington, DC - May 10, 2017 - The Biomass Power Association today released a study by two professors demonstrating dramatic carbon benefits by using forest residue-based biomass fuel instead of natural gas in a power generation facility. The study, conducted by Dr. Madhu Khanna, Distinguished Professor in Environmental Economics at the University of Illinois Department of Agricultural and Consumer Economics, and Dr. Puneet Dwivedi, Assistant Professor in Sustainability Sciences at the University of Georgia Warnell School of Forestry and Natural Resources, found that emissions from a biomass power facility using forest residue-based fuel are 115% lower than those of a natural gas facility in one year. Over one hundred years, those savings remain at 98% after accounting for emissions from logging activities.

“Assessment of the carbon intensity of biopower, in the near term, depends a lot on whether the carbon accounting is conducted at the stand level or at the landscape level,” said the study’s authors. “When biomass is being sourced continuously for a power plant, as in this case, accounting for carbon effects across the landscape from which it is being obtained is more appropriate than at a single stand level. When we do that, we find that the savings from avoiding emissions from decay of residues that would be left in the forest more than make up for the emissions generated in the process of collecting, transporting residues for power generation.”

The authors noted that this finding was specific to use of residues for power generation and that a similar landscape scale analysis needs to be conducted for other forest biomass to determine its greenhouse gas intensity relative to fossil fuels.

“Last week, Congress overwhelmingly voted to acknowledge the carbon neutrality of biomass, and the results of this study confirm the wisdom of that vote,” said Bob Cleaves, president and CEO of Biomass Power Association. “As expected, biomass fuels are vastly preferable to natural gas from a carbon perspective. In addition to the carbon benefits of biomass, the existence of a biomass facility in a forested area promotes jobs and healthy forests by creating a market for low value wood products. As a nation, we can’t afford not to promote the use of biomass, and we look forward to working with Congress on policies that do so.”

The study is released soon after Congress voted to recognize the carbon benefits of biomass in its omnibus spending bill for 2017. With the formal recognition, the U.S. federal government biomass policy aligns with that of most other governing bodies.

“The professors’ findings track with the logical assumption that the use of fuel that regenerates constantly emits less carbon than fossil fuels,” Cleaves continued. “To our knowledge, this is the first time that a life cycle comparison of biomass residue sourced in Massachusetts to natural gas has been conducted. We are grateful to Dr. Khanna and Dr. Dwivedi for the time and effort they devoted to this project.”

Please visit [Biomass Power Association’s website](#) for the full study and a one page summary of the findings.