

July 13, 2016

Secretary Thomas J. Vilsack
U.S. Department of Agriculture
1400 Independence Ave., S.W.
Washington, DC 20250

Dear Mr. Secretary:

On behalf of our millions of members and supporters, the undersigned organizations wish to respond to your letter dated March 28, 2016 to UK Secretary of State for Energy and Climate Change Amber Rudd. That letter makes a series of claims about the benefits of biomass energy for the climate and U.S. forests that are factually inaccurate and appear to misrepresent scientific studies.

Most egregiously, the letter makes a categorical claim that, “biomass generation provides significant greenhouse gas benefits to the UK,” when in fact it does not. Wood-burning power plants emit more carbon pollution at the smokestack than fossil-fueled plants for each unit of energy generated. Worsening the carbon impact, cutting and burning trees degrades the forest carbon sink. Even accounting for forest regrowth, the net additional carbon pollution from bioenergy persists in the atmosphere for years to decades—well beyond the time we need to achieve significant greenhouse gas (GHG) reductions to address climate change.

The UK’s Department of Energy and Climate Change published an analysis of net emissions from burning biomass fuels that confirmed that using whole trees or large woody residues to produce wood pellets—exactly the feedstocks that constitute the majority of US-made pellets burned in the UK¹—generates lasting GHG impacts far in excess of coal.² That study and a growing body of scientific literature on the GHG impacts of different biomass power scenarios³ show that your letter is wrong on the science and overstates your case in categorical terms without addressing the important distinctions in biopower.

Your letter is also misleading in claiming “the amount of forested land in the southern United States increased by 55 million acres (22.26 million hectares) from 2007 to 2012.” As data from the U.S. Forest Service show,⁴ this increase can be largely attributed to the 2012 forest inventory’s inclusion of newly surveyed land in Texas and Oklahoma and the categorization of arid and unproductive “woodland” as “forest.”⁵ An increase in forested land of this magnitude would indeed be noteworthy, and your letter, which erroneously creates the impression that southern forests are expanding at a rapid rate due to new planting, should have explained to your readers the source of this apparent increase.

In fact, U.S. Forest Service data show that for the period 2007-2011, an average of 1.7 million acres (+/- 15 percent) of plantation forests were planted each year in the Southern region, a number that includes replanting of acres that have recently been harvested (rather than new forest establishment).⁶

Further, the timeframe of the USDA inventory data you cite for the apparent increase in forest area (2007-2012) is irrelevant in the context of wood pellets, as the industry in the Southeastern U.S. was in its infancy prior to 2012. Between 2012 and 2013, a year after the timeframe cited, wood pellet exports from the region to Europe nearly doubled, from 1.6 million tons in 2012 to 3.2 million tons in 2013. According to the U.S. Energy Information Administration, U.S. wood pellet exports increased by nearly 40 percent between 2013 and 2014, from 3.2 million short tons to 4.4 million short tons, and were on

track to reach 5.7 million tons in 2015. In 2014, almost three-quarters of all U.S. wood pellet exports were delivered to the UK.⁷

In addition, the letter states that, “demand for wood pellets delivers compelling carbon...benefits to the United States... and that demand for wood pellets promotes U. S. forest growth and reduces risks to U.S. forests.” Far from reducing risks to U.S. forests, a Natural Resources Defense Council study reveals the potential scale of the threat to southeastern bottomland hardwood forests from wood pellet mills in the region. Millions of acres of vulnerable bottomland hardwood forests—which provide critical habitat to a host of rare species and deliver important ecosystem services to local communities—are the in bull’s eye of existing and proposed wood pellet mills’ potential sourcing areas and are at increased risk of being harvested for pellet feedstock.⁸

Finally, the letter misrepresents the conclusions of studies on how increased demand for wood pellets could affect U.S. forests, apparently due to fundamental misunderstanding of the nature of such studies. The letter references a study from Duke University and North Carolina State University (presumably one by Galik and Abt⁹) and a second study by Abt et al,¹⁰ and states that these studies found that increasing demand for wood pellets from the UK and EU “has increased” U.S. forested areas and investments in U.S. forestry. However, the analyses in question are modeling studies that explore the effect of possible future policies, not retrospective studies of actual forest planting and growth. As such, they are not definitive and do not represent current conditions, as alleged in the letter.¹¹

As detailed above, we believe the letter contains a number of misstatements and uses misleading data to promote the wood pellet industry. We appreciate your attention to this matter and ask that you issue a correction. We would also welcome the opportunity to discuss our concerns about the impacts of forest biomass harvesting on our climate and Southern forests with you and your staff.

Respectfully,

Center for Biological Diversity
Clean Air Task Force
Dogwood Alliance
Natural Resources Defense Council
Partnership for Policy Integrity
Pivot Point, A Nonprofit Corporation
Sierra Club
Southern Environmental Law Center

CC: Amber Rudd, UK Secretary of State for Energy and Climate Change

¹ Page 6 of the 2015 biomass supply report from Drax, the UK’s largest consumer of wood pellets, states that the overwhelming majority of fuel imported from the U.S. is “residues” (a category that includes whole trees) and “thinnings” (a category constituted by whole trees). Available at <http://www.drax.com/media/56583/biomass-supply-report-2014.pdf>.

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- ² Stephenson, A. L., and MacKay, D., *Life Cycle Impacts of Biomass Electricity in 2020: Scenarios for Assessing the Greenhouse Gas Impacts and Energy Input Requirements of Using North American Woody Biomass for Electricity Generation in the UK*, UK Department of Energy and Climate Change, July 2014.
- ³ Colnes, A., et al., *Biomass Supply and Carbon Accounting for Southeastern Forests*, The Biomass Energy Resource Center, Forest Guild, and Spatial Informatics Group, February 2012; Harmon, M., *Impacts of Thinning on Carbon Stores in the PNW: A Plot Level Analysis*, Oregon State University, May, 2011; Mitchell, S., Harmon, M., and O'Connell, K., *Carbon Debt and Carbon Sequestration Parity in Forest Bioenergy Production*, GCB Bioenergy, May, 2012; Repo, A., et al., *Sustainability of Forest Bioenergy in Europe: Land-use-related Carbon Dioxide Emissions of Forest Harvest Residues*, GCB Bioenergy, March 2014; Stephenson, A. L., and MacKay, D., *Life Cycle Impacts of Biomass Electricity in 2020: Scenarios for Assessing the Greenhouse Gas Impacts and Energy Input Requirements of Using North American Woody Biomass for Electricity Generation in the UK*, UK Department of Energy and Climate Change, July 2014; Ter-Mikaelian, M., et al., *Carbon Debt Repayment or Carbon Sequestration Parity? Lessons from a Forest Bioenergy Case Study in Ontario, Canada*, GCB Bioenergy, May 2014; Walker, T., et al., *Biomass Sustainability and Carbon Policy Study*, The Manomet Center for Conservation Sciences, June 2010.
- ⁴ Comparison of Table 2 in 2007 and 2012 USFS FIA reports, available at <http://www.fia.fs.fed.us/program-features/rpa/>. (2007 report: Smith, W. Brad, tech. coord.; Miles, Patrick D., data coord.; Perry, Charles H., map coord.; Pugh, Scott A., Data CD coord. 2009. Forest Resources of the United States, 2007. Gen. Tech. Rep. WO-78. Washington, DC: U.S. Department of Agriculture, Forest Service, Washington Office. 336 p. 2012 report: Oswalt, Sonja N.; Smith, W. Brad; Miles, Patrick D.; Pugh, Scott A. 2014. Forest Resources of the United States, 2012: a technical document supporting the Forest Service 2015 update of the RPA Assessment. Gen. Tech. Rep. WO-91. Washington, DC: U.S. Department of Agriculture, Forest Service, Washington Office. 218 p.)
- ⁵ Table 1b, Footnote a, RPA data tables for Oswalt et al, 2014: "*Woodland is a class of land which consists predominantly of stands of sparse woodland species such as juniper, pinyon juniper, mesquite and small stature hardwood species and are found in the arid to semiarid regions of the interior Western United States.*" Footnote b: "*The forest areas of Texas and Oklahoma are significantly higher than reported in previous national assessments. This is due to the nontimberland forests in the western portions of these States being estimated by FIA for the first time.*" Document and accompanying 2012 RPA tables available at <http://www.fia.fs.fed.us/program-features/rpa/>.
- ⁶ Table 43 of Oswalt et al, 2014. Document and accompanying 2012 tables available at <http://www.fia.fs.fed.us/program-features/rpa/>.
- ⁷ U.S. Energy Information Information, "UK's renewable energy targets drive increases in U.S. wood pellet exports," <http://www.eia.gov/todayinenergy/detail.cfm?id=20912>
- ⁸ Natural Resources Defense Council, "In the U.S. Southeast, Natural Forests Are Being Felled to Send Fuel Overseas," October 2015.
- ⁹ Galik, C. S. and R. C. Abt (2015). "Sustainability guidelines and forest market response: an assessment of European Union pellet demand in the southeastern United States." GCB Bioenergy doi: 10.1111/gcbb.12273.
- ¹⁰ Abt, K. L., R. C. Abt, C. S. Galik and K. E. Skog. 2014. Effect of Policies on Pellet Production and Forests in the U.S. South: A Technical Document Supporting the Forest Service Update of the 2010 RPA Assessment. General Technical Report SRS-202, United States Forest Service, Southern Research Station. Available at http://www.srs.fs.usda.gov/pubs/gtr/gtr_srs202.pdf
- ¹¹ The Galik and Abt study modeled constant wood demand at current levels, concluding that *if* hardwood forests were protected from harvesting for pellet feedstock (not currently the case), this *might* drive expansion of new pine plantations. The Abt et al study, conducted on behalf of the U.S. Forest Service, uses a model that assumes increased forest harvest for pellet feedstock will drive up wood prices, thus increasing land rents and timberland area. However, insofar as the cited studies project increases in forested area, those purported increases are attributable to conversion of natural forests and increases in plantation acres, representing a critical loss in biodiversity.