

Massachusetts Environmental Energy Alliance* RESTORE: The North Woods*
Greater Boston Chapter of Trout Unlimited* Green Berkshires*

12 June, 2009

By Facsimile

Senator Edward Kennedy
317 Russell Senate Building
United States Senate
Washington DC 20515

Senator John Kerry
10th Floor, 1 Bowdoin Square
United States Senate
Washington DC 20515

Representative Edward Markey
2108 Rayburn House Office Building
U.S. House of Representatives
Washington DC 20515

Representative Henry Waxman
2204 Rayburn House Office Building
U.S. House of Representatives
Washington DC 20515

Attention: Legislative Aide on Environment

Re: American Clean Energy and Security Act of 2009

Dear Senators Kennedy and Kerry and Representatives Waxman and Markey:

We appreciate your longstanding service and dedication to our Nation and your leadership on climate change and national energy policy. We are committed to bringing our collective efforts to bear in addressing the climate change crisis, and write to draw your attention to provisions of the American Clean Energy and Security Act (H.R. 2454) that undermine our common goals. These provisions concern the Renewable Electricity Standard's classification of burning as a "renewable energy resource" and antidote to climate change. We raise this concern because burning to generate "renewable energy" creates millions of tons of greenhouse gases each year that contribute to global warming in the critical near-term period. In most cases the combustion of these so-called renewable fuel sources (e.g., wood, brush and slash, grasses, construction waste, municipal waste and scraps) emit more CO₂ than fossil fuels, per megawatt generated.

We understand Senate Democrats are considering the merits of using the ACESA as a template for climate change legislation to be advanced in the Senate. We ask your assistance in ensuring that any Senate climate change or energy policy legislation modeled on H.R. 2454 addresses our concerns by including provisions which disqualify burning as a renewable energy resource.

Burning creates CO₂ that will not be reabsorbed for hundreds to thousands of years

The three wood burning “renewable biomass” plants proposed for Western Massachusetts illustrate the issue.¹ These plants will emit 1,635,620 tons of CO₂ a year, a 7 percent increase over current emissions from Massachusetts’ energy sector.² Compounding the problem is this fact: carbon released by burning takes hundreds to thousands of years to re-sequester. U.S. EPA’s April 2009 endangerment finding puts the matter starkly. It states:

Indeed, for a given amount of CO₂ released today, about half will be taken up by the oceans and terrestrial vegetation over the next 30 years, and a further 30 percent will be removed over a few centuries, and the remaining 20 percent will only slowly decay over time such that it will take many thousands of years to remove from the atmosphere. 74 Fed. Reg. 18899, 4/24/2009.

Clearly, this EPA finding means two fundamental assumptions underlying the ACESA are wrong: (1) that burning is a “renewable energy resource” and (2) that biomass burning is “carbon neutral”. The climate change crisis precludes waiting hundreds to thousands of years to sequester the additional atmospheric carbon dioxide that biomass combustion-based electric generating plants would create. This is a harsh reality that cannot simply be legislated away.

Burning Creates Other GHG and Pollutants

Facts relating to the three proposed Massachusetts plants show that biomass burning emits pollutants and greenhouse gases that are comparable to, or higher than, coal. Indeed, per megawatt, these biomass plants release as much as 1.5 times more CO₂ per megawatt of electricity generated than coal plants in the region.³

¹ Russell Biomass (50 MW) in Russell; Palmer Renewable Energy (38 MW) in Springfield; and Pioneer Renewable Energy (47 MW) in Greenfield. The energy generated by these three plants represents only 1 percent of the state’s electrical generation.

² Data from Regional Greenhouse Gas Initiative reporting, 2006 baseline. Generation capacity in Massachusetts in 2007, the last year for which data from the Energy Information Administration are available, was 13,557 MW. The 135 MW generated by the three proposed plants represents just less than 1 percent of this value.

³ The following information is based on a study of public documents on the three plants. The 50-MW Russell Biomass will emit 12,644 tons of CO₂ per megawatt, per year compared to the 146-MW Mount Tom Coal Plant (one of the state’s “Dirty Five”) which produces 7,993 tons of CO₂ per megawatt.

In addition, a biomass plant emits comparable amounts of particulate matter as coal, per megawatt.⁴ Additions of particulate matter and nitrogen oxide, which in part create ground level ozone, will worsen the already poor air quality in Western Massachusetts. As you know, air quality is an issue in many parts of our nation. These emissions have measureable effects on human health and longevity. [See, Fed. Reg. 18901, 4/24/09 and EPA Technical Support Document, OAR-2009-0171.]

Moreover, the Massachusetts biomass burning plants require an uninterrupted wood supply for the life of the plant. Providing wood fuel from harvested materials raises forestry, water and ecosystem impact issues. It ought not to go unnoticed that a wood burning biomass plant requires 3,000,000 pounds of wood a day, every day, requiring heavy cutting that reduces the carbon sequestration capacity of native forests, which serve as a carbon sink.

Relevant ACESA Provisions That Classify Burning as “Renewable Energy”

Section 101(a)(17), defines “renewable electricity” as electricity generated from a “**renewable energy resource or other qualifying energy resources.**” A “**renewable energy resource**” is defined under 101(a)(18) to include 8 sources: wind, solar, geothermal, “**renewable biomass**”, biogas and biofuels derived exclusively from renewable biomass, qualified hydro, and marine and hydrokinetic (tidal) energy. “**Other qualifying energy resources**” under 101(a)(12)(A)-(D) consists of 4 things: landfill gas, wastewater treatment gas, coal mine methane, and “qualified waste to energy.”

In turn, “**qualified waste to energy**” is defined under 101(14)(a) as:

energy from the combustion of municipal solid waste or construction, demolition, or disaster debris, or from the gasification or pyrolyzation of such waste or debris and the combustion of the resulting gas at the same facility.” The use of “waste to energy” must meet three conditions.⁵

Under Section 101(16), there are 9 types of “**renewable biomass**” which may be burned to generate electricity under the bill. Four of these nine are trees or forestry materials, and one includes construction and demolition debris.

⁴ Per megawatt, the Russell Biomass plant will emit 1.69 tons of particulate matter per year (a total of 84.3 tons per year) while the Mount Tom coal fired plant emits 1.50 tons of particulate matter per year per megawatt (a total of 219 tons per year). Particulates are pollutants associated with asthma, heart disease, and lung cancer.

⁵ 101(1) defines waste to energy as the energy derived from the non-fossil biogenic portion of such waste or debris; and requires that the [federal regulators] determine “that the total lifecycle greenhouse gas emissions attributable to the generation of electricity from such waste or debris are lower than those attributable to the likely alternative method of disposing of such waste or debris”; and the owner/operator provide annual reporting.

CO₂ Emissions from Burning for Renewable Energy are Exempt from Regulation

Despite the harmful impacts of biomass energy generation, the CO₂ emissions from the burning of the “renewable energy resources” and “qualified energy resources” under the bill are exempt from the cap and trade provisions of the ACESA. Also, the bill exempts from U.S. EPA regulation the greenhouse gases created by burning to produce renewable energy. Thus, there appears to be a glaring inconsistency between these provisions of the bill and the U.S. EPA’s endangerment findings noted above. This inconsistency works to the detriment of our mutual goal to combat global warming.

In this regard, please find attached a summary of the environmental impacts of the “renewable biomass” plants proposed in Massachusetts. As you may be aware, similar proposals with the same deleterious impacts -- more CO₂, air pollution, and negative impacts on water -- are being proposed around the Nation.

In conclusion, federal legislation that codifies burning as “renewable electricity” and promotes its use to meet RES mandates when burning emits greenhouse gases and has other serious air, water, forestry, and public health effects is without question contrary to the stated goals of H.R. 2454. Exempting the greenhouse gases generated by burning from all regulatory programs undermines the goal of a cleaner, greener economy by permitting uncounted millions of tons of CO₂ to be emitted to the atmosphere.

It is imperative that there be further serious consideration of this issue to ensure that the provisions in H.R. 2454 that allow burning as a means to generate “renewable electricity” do not make climate change worse and thereby create other environmental and human health impacts.

Very truly yours,

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Cc: Ms. Nancy Pelosi, Speaker of the House [By Facsimile]

Mr. Harry Reid, Senate Majority Leader [By Facsimile]

Enclosures:

Fact Sheet

Boston Globe Opinion Editorial, May 25, 2009, “Red Flag on Green Energy”

Letters to the Editor, Boston Globe, May 13, 2009