

Remarks of Attorney Margaret E. Sheehan
U.S. House of Representative Briefing on H.R. 2454
(Waxman Markey Clean Energy Bill)
June 19, 2009

There is one take away message from my talk today: CO₂ is CO₂¹ regardless of the source: whether it comes from burning coal or another material. One molecule of CO₂ is just as dirty as the next, and has the same negative climate change impact. I will be elaborating on this topic.

The Waxman Markey American Clean Energy and Security Act, H.R. 2454, subsidizes biomass burners that emit 1.5 more CO₂ per megawatt than burning coal. The Bill calls biomass burning “clean and green” and renewable – it is neither. In my remarks I will focus on Title I, the Renewable Electricity Standard of the 964 page bill, which says biomass burning is a “Renewable Energy Resource.”

To put my remarks in context, President Obama’s Climate Change report issued on Tuesday of this week explicitly reiterates the importance of early cuts in emissions of CO₂. (see slide) That means a climate change bill should focus on reducing emissions now, not 10 or 20 years from now.

H.R. 2454 aims to require utilities to purchase **20% of their electricity from renewables by 2020**. Up to 5 percent can come from efficiency improvements.

¹ CO₂ is carbon dioxide, the most prevalent greenhouse gas and cause of global warming.

H.R. 2454 mandates and subsidizes “renewable energy resources” that burn various materials to generate electricity. Section 101 defines **the type of renewable electricity** that a utility can use to meet its **20% by 2020** mandate – wind, solar, geothermal, tidal, and “**combustion and pyrolyzation**” – the latter two are fancy words for burning.

Section 101(a) identifies the materials that can be burned to generate renewable electricity– there are two basic categories: “renewable biomass” and second, “waste to energy.” Waste to energy includes municipal solid waste, construction and demolition debris, and landfill gas – just about anything you can think of.² Burning biomass and these other materials, by emitting CO₂, **accelerates the rise in atmospheric CO₂**

Burning emits highly **toxic air pollutants**, including dioxin and mercury, uses large volumes of water for cooling and discharges heated effluent into our rivers, and causes deforestation when wood is used as a fuel. The bill’s forest protection provisions are weak. I won’t focus on these but have information available about the other air, water, forestry, and public health impacts.

There is a big regulatory loophole here that gives burning a free ride as a “renewable energy source”: CO₂ emitted from burning to produce electricity under the RES **is invisible** to the regulatory process and treated as if it does not exist.

² Only waste to energy has a lifecycle analysis tied to it. See, Section 101(14)(a).

CO2 emissions from renewable electricity burning are **exempt from the “Cap and trade” limits in Title VII.** This CO2 is also exempt from regulation by EPA under H.R. 2454. **EPA cannot regulate** CO2 from biomass and other types of incinerators being used to generate “renewable electricity.” The existence of these two loopholes reflects how the regulatory programs in Massachusetts are being implemented: biomass burning CO2 is exempt from cap and trade, and from regulation in air pollution permits.

How did we get into this situation? We lost sight of fact that CO2 is CO2. Every molecule of CO2 emitted into the atmosphere by energy production should be counted. It does not matter whether the CO2 comes from a **car, a factory or a biomass smokestack – it all has the same impact on climate change.**

When the issue of CO2 emissions from biomass is raised, you will hear some in industry assert that generating energy by burning wood is “carbon neutral.” They argue the CO2 emissions don’t count because the carbon in the trees is “**biogenic – i.e. part of the natural carbon cycle and that emitting CO2 by burning a tree** has the same global warming impact as emitting the same amount of CO2 as when the **tree decomposes over time.** This is a red herring **defies common sense.**³

Burning emits a **sudden burst of carbon** in to the atmosphere-this is a man made, anthropogenic, not a natural, event, and is therefore not “biogenic.” It is this CO2

³ Please refer to the article by Swiss scientist Eric Johnson, “Goodbye Carbon Neutral: Getting Biomass Footprints Right.”

emitted into the air now that impacts climate change today and that has to be addressed now.

Also, you will hear from some in industry that the carbon is all part of the “biosphere” – i.e. the world - but what counts is the amount of carbon in the biosphere that is in the **atmosphere**. The reality is that what matters to global warming is the number of molecules in the atmosphere today, not in the overall biosphere.

The carbon neutral myth is also debunked by the **science behind EPA’s Proposed Endangerment Findings for GHG (4/24/09)** under the Clean Air act – so it’s good news that science agrees with common sense here. This science says that the amount of carbon released when a tree or any material is burned will not be reabsorbed for 100s to thousands of years – in the example of a tree, growing that tree back over 10, 20 or more years does not neutralize the carbon emitted from burning.

Burning trees to generate electricity as an antidote to climate change is a **double blow** to the battle to slow global warming: Burning a tree produces CO₂, and every tree that is burned eliminates a tree that can re-sequester carbon.

Here are some facts from a biomass proposal in Massachusetts: it emits 3 billion pounds of CO₂ per year, burns one ton of wood per minute, powers 45,000 homes, but produces only enough electricity for one quarter of one percent of MA electricity needs. CO₂ emissions per megawatt from burning biomass are at least 1.5 times coal emissions.

I will show the magnitude of the harm that will be caused by H.R. 2454 – unless the language is strengthened: the **amount of CO2 that biomass burning will generate by the year 2020** is huge– and 2020 which is about a year past when some scientists predict that the CO2 levels will pass the tipping point.

According to the Energy Information Administration, which does official energy statistics for the U.S. Government, by 2020, under a 20% Renewable Electricity Standard, which is the goal under the HR 2454, the U.S. will produce **70 gigawatts** of electricity from biomass burning. That translates to **700 millions tons of CO2** from biomass burning in 2020 – that’s a lot of CO2 from a so called clean and green renewable source.

Trends show that biomass burning will make up a large portion of the Renewable Electricity Standards under H.R. 2454. In two states, **Pennsylvania and Massachusetts**, that have RES now, and allow biomass burning, about 80% of renewable energy comes from burning materials such as biomass and trash.

In closing here is a fundamental point: the bill would allot money to chop down trees for electricity. **Without strengthening the language of 2454, the bill will be subsidizing biomass burners which release more CO2 than coal fired plants, calls clean, calls it green and it is neither.** I strongly urge that the language in H.R. 2454 be strengthened to fix the problems identified here. I want to leave you with a thought –the bill **needs to be clean and green.**

Thank you.

Handouts: Copies of Power Point presentation, Eric Johnson Article, Fact Sheet from Mass. Environmental Energy Alliance.

