

March 23, 2016

Mr. Thomas Carpenter  
Designated Federal Officer (DFO)  
EPA Science Advisory Board (1400R)  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue NW.  
Washington, DC 20460



**Re: GAIA written statement for the Mar 31 - Apr 1, 2016 Public Meeting of the Chartered Science Advisory Board (SAB)**

Dear Mr. Carpenter,

We write to respectfully request that the SAB closely examine the merits of the current alternative fate analyses described in the draft Biogenic Framework for municipal solid waste (MSW). We also urge SAB and EPA to examine the long term policy consequences of classifying the biogenic portion of MSW as “carbon neutral.”

In practice, MSW incinerators combust mixed MSW, not only the so-called biogenic portion of MSW (such as food, plant matter, and paper). That means incinerators combust fossil fuels like plastics and many other materials at the same time as paper and discarded food and plant matter. According to Appendix N of the Biogenic Framework, the biogenic portion of MSW makes up over 60% of the waste stream, and the non-biogenic portion over 25%.<sup>i</sup> The fossil fuel CO<sub>2</sub> emissions from MSW incineration are serious.<sup>ii</sup> Furthermore, once the emissions are added up, the total stack emissions are over 5,000 pounds per megawatt hour, which is greater than the total stack emissions of coal and oil.<sup>iii</sup> Given that the climate is in a critical phase and that overall emissions must be reduced in order to avoid worsening climate disasters, this high emissions burden from incineration must be carefully considered.

We ask the SAB whether the following aspects related to MSW materials in the draft Biogenic Framework have been considered, and if not, we respectfully request these topics be considered at a future phase of inquiry into the draft Biogenic Framework:

1. Alternate Fates of MSW

- a. Has the SAB considered the growing body of science regarding long term carbon sequestration from the application of compost on grasslands? For example,

GAIA U.S. Office  
1958 University Ave.  
Berkeley, CA 94704  
Phone: +1-510-883-9490  
Fax: +1-510-883-9493  
[www.no-burn.org](http://www.no-burn.org)

research performed by the [Marin Carbon Project](#) has shown that “compost amendments could result in significant offsets to greenhouse gas emissions, amounting to over 28 MMg CO<sub>2</sub>e when scaled to 5% of California rangelands, while sustaining productive lands and reducing waste loads.”<sup>iv</sup> We recommend that SAB and EPA consult with Dr. Sintana Vergara and Dr. Whendee Silver of the Department of Environmental Science, Policy and Management at the University of California, Berkeley on this issue.

- b. Has the SAB considered the importance of showing additional alternate fates of MSW, including much higher recycling and composting rates? The current fate considered assumes status quo portions of MSW feeding into recycling and composting systems. However, recycling and composting systems are widely acknowledged to have greater climate mitigation impacts than waste disposal at incinerators and landfills.<sup>v</sup> Composting is also widely acknowledged for climate resiliency benefits from the application of finished compost.<sup>vi</sup> We offer three publications providing data on the climate benefits of higher recycling and composting rates, as well as the range of policies that would achieve these outcomes. [More Jobs, Less Pollution](#), [Recycling Jobs, Unlocking Potential](#), and [Pro-Active Organics Recovery Strategy](#).
  - c. Has SAB or EPA considered the embodied energy in paper, cotton textiles, and other materials considered to be “biogenic,” and that reuse and recycling these materials keeps this energy in the materials system, rather than burning it once and incentivizing the energy-intensive manufacturing of new paper from virgin trees, of new cloth from cotton, and other materials?<sup>vii</sup>
2. Policy implications of deeming incineration of biogenic MSW to be “carbon neutral”
- a. Has the SAB considered that classifying the incineration of biogenic material as “carbon neutral” has already resulted in increased renewable energy subsidies for all incineration (not merely the biogenic portion), thus that these have become incentives for the combustion of fossil fuels inside MSW incinerators?
  - b. As the Clean Power Plan states “Increasing demand for electricity generated from waste-to-energy facilities could increase competition for and generation of waste stream materials - including discarded organic waste materials – which could work against programs promoting waste reduction or cause diversion of these materials from existing or future efforts promoting composting and recycling.” Has the SAB considered that policies incentivizing incineration undermine recycling and composting programs, and strongly dis-incentivize potential new programs, despite the fact that such programs provide much stronger climate benefits than MSW combustion?

3. Practical climate and toxicity implications of moving more MSW towards incineration
  - a. As described above, MSW incineration combusts much more than biogenic materials, including at least 25% from fossil fuel sources. Has the SAB considered this mix of materials, and the climate implications of burning all of this material?
  - b. Has the SAB or EPA considered the toxicity, health, and environmental justice implications of existing incineration, or of potentially increased incineration as a result of climate and energy policies deeming incineration “carbon neutral”?<sup>viii</sup> It is important to consider the communities that will be most impacted by the outcomes of the Biogenic Framework. We recommend that the SAB or EPA meet with the National Environmental Justice Advisory Council (NEJAC) regarding the draft Biogenic Framework.

Finally, we attach here our December 2014 letter to EPA in response to the draft Biogenic Framework, the accompanying memo by Janet McCabe, and discussing the implications for waste incineration in the Clean Power Plan, to demonstrate that a wide range of organizations are concerned about these issues.

We implore the SAB to carefully consider the practical implications of the Biogenic Framework for MSW, including impacts on environmental justice, health, various waste reduction policies, and the climate.

Sincerely,

Ahmina Maxey  
US & Canada Regional Campaigns & Membership Coordinator  
Global Alliance for Incinerator Alternatives

Enclosed: *December 2014 letter to EPA in response to the draft biogenic framework*

- 
- [i] EPA MSW <https://www3.epa.gov/epawaste/nonhaz/municipal/>
- [ii] EPA Air Emissions from MSW Combustion Facilities  
<https://www3.epa.gov/wastes/nonhaz/municipal/wte/airem.htm#7>
- [iii] Energy Justice Network <http://www.energyjustice.net/egrid>
- [iv] Marin Carbon Project [www.marincarbonproject.org/science/lifecycle-ghg-and-soil-amendments-on-rangelands](http://www.marincarbonproject.org/science/lifecycle-ghg-and-soil-amendments-on-rangelands)
- [v] EPA Climate Change & Waste <https://www3.epa.gov/climatechange/climate-change-waste/>
- [vi] Marin Carbon Project <http://www.marincarbonproject.org/policy/rangeland-compost-protocol>
- [vii] Morris J (2005): Comparative LCAs for Curbside Recycling Versus Either Landfilling or Incineration with Energy Recovery. *International Journal of Life Cycle Assessment* 10(4) 273-284
- Morris J (1996): Recycling versus incineration: an energy conservation analysis. *Journal of Hazardous Materials* 47(1-3) 277-293
- [viii] Waste Incineration and Public Health (2000), Committee on Health Effects of Waste Incineration, Board on Environmental Studies and Toxicology, Commission on Life Sciences, National Research Council, National Academy Press, pp. 6-7.
- Howard, C.Vyvyan, Statement of Evidence, Particulate Emissions and Health, Proposed Ringaskiddy Waste-to-Energy Facility, June 2009

December 1, 2014

Dear Administrator Gina McCarthy,

We, the undersigned organizations are alarmed that on November 19, 2014 the EPA released the [Revised Framework for Assessing Biogenic CO2 Emissions from Stationary Sources](#). This new Framework has a significant impact on the EPA Clean Power Plan, yet was released less than two weeks before the December 1, 2014 deadline for public comments on the Plan.

The EPA Memo for this Framework unilaterally asserts that climate pollution from burning waste and biomass “are likely to have minimal or no net atmospheric contributions of biogenic CO2 emissions” and hence, should not be counted as harmful emissions, despite growing evidence to the contrary.

The growing body of evidence that burning waste and biomass has long term climate consequences includes a 2014 study of U.S. biomass energy emissions found that burning biomass is worse for the climate than burning coal.<sup>1</sup> This adds to the many studies that have found that biomass energy is more carbon-intensive than coal, and that the life-cycle emissions associated with various sources of biomass and waste fuels are much greater than those of fossil fuels.<sup>2</sup> According to EPA’s own database,<sup>3</sup> burning municipal waste is the most carbon intensive form of energy generation, producing over twice the amount of CO2 per unit of energy than coal plants. This has been corroborated by recent studies comparing the emissions of waste (“WTE”) incinerators and coal plants in Maryland<sup>4</sup> and New York.<sup>5</sup>

If the EPA formalizes this new biogenic emissions framework, and allows all biogenic emissions to be counted as zero in emissions rate calculations, the door will be opened wide for states to encourage the co-firing of biomass and waste in power plants through various subsidies and incentives that states will implement under the Clean Power Plan. This will lead to a severe increase in both greenhouse gas and toxic emissions.

Incentivizing any form of combustion energy, whether it be coal, gas, trash, or biomass, raises serious concerns about increased public health impacts, especially for communities already overburdened by such industrial pollution. We are gravely concerned that together, the Clean Power Plan and this biogenic emissions framework will result in an increase of health consequences and related economic burdens for frontline communities of color and low income communities across the United States. As Dr. Robert Bullard noted in his 2011 article “Dismantling Energy Apartheid in the United States,” “burning biomass to generate electricity.... is neither green nor clean.”<sup>6</sup> The EPA should prioritize the reduction of pollution burdens in communities disproportionately impacted, not promote such avenues for greater harm.

By allowing exemptions for pollution control requirements for power plants using waste derived fuels and so-called “sustainable” forestry and agricultural feedstocks,<sup>7</sup> the EPA is sending a clear signal to a range of combustion energy companies that they can access a free pass for increases in their climate and toxic pollution loads, by burning biomass fuels and substituting a portion of their fossil fuels with such feedstocks.

Such exemptions would fly in the face of recommendations made by over 90 scientists earlier this year in a July 14th letter,<sup>8</sup> which stated “only when bioenergy results in additional carbon being sequestered above and beyond the anticipated baseline can there be a justification for concluding that such energy use results in little or no increase in carbon emissions.”

We believe the EPA should adhere to the Precautionary Principle in ensuring the protection of community health, while applying rigorous science in assessing real greenhouse gas emissions reductions. In doing so, the implementation of the Clean Power Plan should in no way incentivize the combustion of waste, biomass, or any other fuels for energy generation.

Sincerely,

*National and regional organizations*

Center for Earth, Energy and Democracy  
Center for Social Inclusion  
Earthjustice  
Energy Justice Network  
Environmental Integrity Project  
Friends of the Earth - US  
GAIA (Global Alliance for Incinerator Alternatives)  
Greenpeace  
Institute for Local Self-Reliance  
Sierra Club  
The Heartwood Council  
Toxics Action Center  
WildEarth Guardians  
World Team Now

*State organizations*

*California*

California Communities Against Toxics  
California Safe Schools  
CLASS  
Mercedians Against Fracking  
SBM Management

*Colorado*

Eco-Cycle

*Delaware*

Green Delaware

*Florida*

Citizens for Sanity

*Maryland*

Community Research  
No Incinerator Alliance  
Wisacre Films LLC

*Massachusetts*

Perlmutter Associates

*Michigan*

Zero Waste Detroit Coalition

*Minnesota*

Eureka Recycling  
Minneapolis Neighbors for Clean Air  
Neighborhoods Organizing for Change  
Nothing Left to Waste

*Montana*

Montanans Against Toxic Burning

*New Hampshire*

ACTS Now

*New York*

Jamesville Positive Action Committee  
New York Public Interest Research Group  
The Real Majority Project

*Ohio*

Athens County Fracking Action Network

*Oregon*

Beyond Toxics  
Our Forests

*Pennsylvania*

Chester, PA EJE

*Texas*

Texas Campaign for the Environment

*Wisconsin*

RecycleWorlds

Submitted by Global Alliance for Incinerator Alternatives.

Monica Wilson, [monica@no-burn.org](mailto:monica@no-burn.org), 510-883-9490 x103

---

**ENDNOTES**

<sup>1</sup> Partnership for Policy Integrity, *Trees, Trash and Toxics: How Biomass Energy has Become the New Coal*, April 2014.

<sup>2</sup> A) Manomet Center for Conservation Sciences for the Commonwealth of Massachusetts, *Biomass Sustainability and Carbon Policy Study*, June 2010.

B) UK Department of Energy and Climate Change, *Life Cycle Impacts of Biomass Electricity in 2020*, July 2014.

C) Energy Justice Network, *Trash Incineration More Polluting than Coal*, [www.energyjustice.net/incineration/worsethancoal](http://www.energyjustice.net/incineration/worsethancoal)

D) Energy Justice Network, *Biomass Incineration and Climate*, [www.energyjustice.net/biomass/climate](http://www.energyjustice.net/biomass/climate)

<sup>3</sup> EPA eGRID 2010 Emissions Data for U.S. Electric Power Plants: [www.energyjustice.net/egrid](http://www.energyjustice.net/egrid)

<sup>4</sup> Waste-to-Energy Incinerators Pollute More Per of Hour of Energy than Coal-Fired Power Plants and Are Not Renewable: [environmentalintegrity.org/archives/6709](http://environmentalintegrity.org/archives/6709)

<sup>5</sup> NY Department of Conservation, Comments to New York State Public Service Commission in the Matter of the application of Covanta Energy Corporation, August 19, 2011.

<sup>6</sup> Dr. Robert Bullard, "Dismantling Energy Apartheid in the United States," *Dissident Voice*, 2011. [www.dissidentvoice.org/2011/02/dismantling-energy-apartheid-in-the-united-states/](http://www.dissidentvoice.org/2011/02/dismantling-energy-apartheid-in-the-united-states/)

<sup>7</sup> November 19th Memo from Janet G. McCabe, Assistant Administrator, EPA Air and Radiation, <http://www.epa.gov/climatechange/downloads/Biogenic-CO2-Emissions-Memo-111914.pdf>

<sup>8</sup> Letter to Joe Goffman, Senior Counsel, EPA Office of Air and Radiation: [www.caryinstitute.org/sites/default/files/public/downloads/news/2014\\_06\\_epa\\_biomass\\_carbon.pdf](http://www.caryinstitute.org/sites/default/files/public/downloads/news/2014_06_epa_biomass_carbon.pdf)