

<p>Mike Ewall, Esq. Founder & Director Energy Justice Network 430 M St. SW #N406 Washington, DC 20024 215-436-9511 mike@energyjustice.net www.EnergyJustice.net</p>	<p style="text-align: center;">Comments to Senate Finance Committee</p> <p style="text-align: center;">SUPPORT WITH AMENDMENTS</p> <p style="text-align: center;">Senate Bill 786: Electricity - Community Renewable Energy Generating System - Pilot Program</p> <p style="text-align: center;">March 4, 2014</p>
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Good afternoon. My name is Mike Ewall, and I'm the founder and director of a national organization called Energy Justice Network. Energy Justice works at the local level with grassroots community groups throughout Maryland and the rest of the country to support efforts to stop polluting and unnecessary energy and waste industry facilities, most notably incinerators of all sorts.

Energy Justice Network supports SB 786, but only if the bill is cleaned up so that biomass incineration technologies (including gasification) are removed by striking lines 3, 7 and 8 on page 3 and renumbering accordingly.

The following environmental organizations also support our call to exclude these dirty energy technologies from the pilot program: Assateague Coastal Trust, Clean Water Action, Envision Frederick County, Food & Water Watch, Institute for Local Self-Reliance and Wicomico Environmental Trust.

Biomass is a catch-word for many fuels, including many that are rather contaminated with toxic metals and other chemicals that are hazardous when burned. It can include such toxic wastes as construction and demolition wood waste and black liquor. Even poultry litter, wood and crop wastes can be surprisingly contaminated from feed ingredients and environmental toxins absorbed by plants and trees.

Biomass health hazards are so serious that numerous organizations representing health and medical professionals have put out statements opposing biomass incineration due to health concerns. On the national level, the American Academy of Family Physicians and American Lung Association have issued specific statements opposing biomass on health grounds, and the American Heart Association is on record expressing concern about particulate matter (from any source) contributing to cardiovascular disease.

The **American Lung Association** “**does not support biomass combustion for electricity production,**” “strongly opposes the combustion of wood and other biomass sources at schools and institutions with vulnerable populations,” and even “encourages individuals to avoid burning wood in homes where less polluting alternatives are available.” A full compilation of medical and health professional organizations’ statements opposing biomass incineration can be found at www.energyjustice.net/biomass/health/

Biomass is proved not to be carbon neutral. EPA data shows that biomass incineration has CO2 emissions that are 50% worse than coal, per unit of energy produced.¹

Gasification is an expensive and experimental type of incineration. It is legally defined and regulated as incineration.² Gasification still effectively burns everything that is put into the machine, but just does so in two stages, first turning the waste into a gas, then burning the gas in a separate chamber. Gasification facilities are far

¹ U.S. EPA, eGRID 2012 database (2009 data), www.epa.gov/egrid/

² 40 CFR 60.51a contains EPA’s definition of incineration and says that a municipal waste combustor (which EPA separately explains is the same as a municipal waste *incinerator*) is defined as: “any setting or equipment that combusts solid, liquid, or **gasified** [municipal solid waste] including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam-generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units.”

more expensive than normal trash and biomass incinerators, which themselves have been found by the Energy Information Administration to be the two most expensive types of electric generation to build or operate.³

Gasification has been dismissed by the leading consultants in the field. At a national presentation at the WasteCon 2012 conference in National Harbor, MD, the incinerator-loving solid waste consultants, GBB, presented data on the state of incinerator technologies and concluded that gasification is “high risk” (they're speaking in economic terms) due to “limited operating experience at only small scale; subject to scale-up issues.”⁴

The world’s largest waste corporation, Waste Management, Inc. (WMI), has also recently backed away from gasification and related experimental incineration technologies.⁵ Gasification is the core technology in all three startup companies named in the Wall Street Journal article as startups that WMI invested in, but found to be too risky, and pulled their IPOs: Enerkem Inc., Genomatica Inc. and Fulcrum Bioenergy Inc.

The pro-incineration Director of the DC Department of Public Works, William O. Howland, Jr., also found gasification to be a risky, unproven technology. In a 2009 email to the DC Mayor’s office, he panned a proposal by a gasification company that approached the mayor’s office, writing:

“The technology the vendor is proposing – plasma gasification and combined cycle WTE – has not been successfully modeled either in the United States or abroad. In the US, there is a plant on the drawing board in Florida which has been significantly downsized since its inception and is still not operational. Further, the project has run into problems getting a turbine manufacturer to accept the risk and provide a warranty because the derived fuel is not sufficiently clean of metals and other particulate matter. Japan has several gasification facilities that vary in size and are run intermittently.”⁶

Further information on gasification (and incineration in general), is available at www.energyjustice.net/incineration (see section of reports specifically on gasification). More documentation on the statements above are available upon request. More information on biomass incineration can be found at:

Biomass incineration: www.energyjustice.net/biomass/ & www.energyjustice.net/files/biomass/woodybiomass.pdf

Poultry waste incineration: www.energyjustice.net/fibrowatch/

³ “Updated Capital Cost Estimates for Utility Scale Electricity Generating Plants,” U.S. Energy Information Administration, April 2013. See Table 1, p.6 in www.eia.gov/forecasts/capitalcost/pdf/updated_capcost.pdf

⁴ Gershman, Brickner & Bratton, Inc., “The Latest and Greatest on WTE and Conversion Technologies,” Presentation at WASTECON 2012, National Harbor, MD, August 14, 2012, slide 43, p. 22. www.gbbinc.com/speaker/GershmanWASTECON2012.pdf

⁵ Yuliya Chernova, “Big Waste Hauler Rethinks Startups,” Wall Street Journal, Jan 3, 2014. <http://online.wsj.com/news/articles/SB20001424052702303640604579297003682735612>

⁶ Email from DC Department of Public Works Director, William Howland to Brian Kenner, DC Mayor’s Office regarding Solena Republic, Nov. 13, 2009. Available in FOIA production, p40 at www.energyjustice.net/files/dc/Correspondence-Mayor.pdf