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May 27th, 2014

Peter W. Davidson
Executive Director
U.S. Department of Energy, Loan Programs Office
1000 Independence Avenue, SW
Washington, DC 20585

Re: Loan Guarantee Solicitation Announcement, Federal Loan Guarantees for Renewable Energy Projects and Efficient Energy Projects, Solicitation Number: DE-SOL-000 ____

Dear Director Davidson:

We, the 131 undersigned local, regional and national and international environmental, environmental justice and social justice organizations, object to the inclusion of climate and community-damaging technologies in the Department of Energy's loan guarantee program for renewable energy projects.

The law requires that these technologies "avoid, reduce, or sequester... anthropogenic emission of greenhouse gases."¹ One would think that this would prevent the program from subsidizing technologies whose greenhouse gas emissions are worse than coal. However, the draft solicitation specifically says that eligible technologies include technologies inappropriately described as "waste-to-energy"², including trash and biomass incineration, and the burning of toxic landfill gases, ethanol, and other biofuels.³

The law also requires that these technologies be new or innovative, yet these technologies are largely neither.

Trash incineration is the most CO₂-polluting energy technology, with emissions 2.5 times that of coal according to EPA's latest eGRID data.⁴ Trash incineration is also worse than coal by every other available measure of pollution.⁵ At a DOE public meeting on this program, Peter Davidson, Director of the Loan Program Office, stated that even conventional combustion is eligible -- falsely claiming that the technology is highly efficient in

¹ Energy Policy Act of 2005, Section 1703(a)(1). <http://www.gpo.gov/fdsys/pkg/BILLS-109hr6enr/pdf/BILLS-109hr6enr.pdf>

² "Waste-to-energy" is a public relations term, but not an accurate one, as waste is not actually turned into energy, but into toxic ash and toxic air emissions. It is a waste-OF-energy, as embodied energy is destroyed when burned, but 3-5 times more energy could be saved through recycling and composting. See: <http://www.energyjustice.net/incineration/waste-to-energy>

³ Draft Loan Guarantee Solicitation Announcement -- Federal Loan Guarantees for Renewable Energy Projects and Efficient Energy Projects, April 16, 2014, p.4. <http://energy.gov/sites/prod/files/2014/04/f15/Draft-Renewable-Solicitation-04-11-14.pdf>

⁴ EPA eGRID v.9 Database (2010 data for U.S. electric generators). Analysis by Energy Justice Network. Charts and data tables documented at <http://www.energyjustice.net/egrid>

⁵ "Trash Incineration More Polluting than Coal," Energy Justice Network. <http://www.energyjustice.net/incineration/worsethancoal>

Europe and that there are greenhouse gas benefits.⁶ In fact, burning trash is the least efficient of any fuel evaluated for your agency just last year.⁷ Conventional combustion is not new or innovative, as it has been around in its current form for decades.⁸ Furthermore, everywhere trash combustion is employed, its primary purpose is not energy generation but waste reduction before landfilling of the remaining ash, and so little energy is produced that the term “waste-to-energy” is a misnomer.²

“Advanced” incineration technologies like plasma arc, pyrolysis and gasification are also being solicited.^{6,9} These technologies are also not new or innovative, as there have been efforts for decades to make them work on municipal solid waste. While it would indeed be innovative if any company were able to make the technology work at a commercial scale for the first time, the track record of this industry is of a consistent economic and technical failure.^{10,11,12} These technologies are inherently more complicated and more expensive than conventional trash incineration, and conventional trash incineration (after being established for decades) is the most expensive way to make energy, even though the facilities get paid to take their fuel.⁷ Incinerators are also the most expensive way to manage waste.^{13,14} DOE should look critically at these baby Solyndra proposals, since the loan program requires a reasonable prospect of repayment that this industry cannot reasonably expect to provide.

Biomass incineration is being solicited, even though crop, forestry waste and other biomass releases 50% more CO₂ than coal to produce the same amount of energy.⁴ Its inefficiency is second only to trash incineration.⁷ Numerous scientific studies have debunked biomass “carbon neutrality” claims and have shown that, even if new and additional tree growth is made to happen, it takes decades to bring CO₂ levels down to

⁶ Statement by Peter Davidson, Executive Director of DOE’s Loan Program Office at Department of Energy Public Meeting on Renewable Energy and Efficient Energy Projects Loan Guarantee Solicitation, Arlington, VA, April 28, 2014.

⁷ “Updated Capital Cost Estimates for Utility Scale Electricity Generating Plants,” Energy Information Administration, April 2013, p.6, Table 1. <http://www.eia.gov/forecasts/capitalcost/>; Full report here: http://www.eia.gov/forecasts/capitalcost/pdf/updated_capcost.pdf

⁸ Over 80 operating “waste-to-energy” (trash incineration) facilities exist in the U.S. and have been operating since the 1980s and 1990s. See “2014 ERC Directory of Waste-to-Energy Facilities,” Energy Recovery Council, May 2014. http://www.wte.org/userfiles/files/ERC_2014_Directory.pdf

⁹ These technologies are defined and regulated as incinerators by U.S. EPA and by the European Union, despite industry efforts to insist that they are not actually incinerators. See definitions and relevant reports on these “incinerators-in-disguise” or “staged incinerators” at <http://www.energyjustice.net/incineration> (definitions at bottom of page).

¹⁰ The nation’s leading pro-incinerator consultants, Gershman, Brickner and Bratton, consistently present at industry conferences with a chart showing that pyrolysis and gasification are high risk investments due to “previous failures at scale, uncertain commercial potential, no operating experience with large-scale operations” (pyrolysis) and “limited operating experience at only small scale; subject to scale-up issues” (gasification). See slide 43 in their presentation at WasteCon 2012 for a copy: <http://www.gbbinc.com/speaker/GershmanWASTECON2012.pdf>

¹¹ Waste Management Inc., the world’s largest waste corporation, has recently backed away from its investments in many of these experimental incineration technologies. “Big Waste Hauler Rethinks Startups,” Wall Street Journal, Jan. 3, 2014. <http://online.wsj.com/news/articles/SB20001424052702303640604579297003682735612>

¹² Not a single commercial-scale facility is operating in the U.S. Failures in the U.S., Europe and Japan are described in presentations by GreenAction, and in the Energy Justice Network powerpoint on incineration available at <http://www.energyjustice.net/incineration>

¹³ National Solid Waste Management Association 2005 Tip Fee Survey, p4. <http://www.environmentalistseveryday.org/teyuhata/docs/Tipping-Fee-Bulletin-2005.pdf>

¹⁴ Ted Michaels, President of the Energy Recovery Council, Testimony before Washington, DC City Council Hearing on March 18, 2013. Video of the hearing before the Committee on Transportation and the Environment is here: http://dc.granicus.com/MediaPlayer.php?view_id=29&clip_id=1662 See 1:44 for this quote: “Waste-to-energy is an additional capital cost. That is not in dispute, compared to a landfill... compared to a landfill, which is a less capital-intense structure -- it is more expensive. If you had a landfill next to a waste-to-energy facility, then almost in every case, you would think the landfill is going to be cheaper.”

that of coal, and centuries for “carbon neutrality” to be reached, if ever.¹⁵ We don’t have that long to address global warming, and biomass technologies cannot objectively meet the requirement to avoid, reduce, or sequester greenhouse gases within a meaningful time frame.

It’s not just the science that has turned around in its understanding of CO2 from biomass. The courts and now EPA are also recognizing this reality. In July 2013, the U.S. Court of Appeals struck down EPA’s exemption for biogenic CO2 sources.¹⁶ The court agreed with the science that “the atmosphere makes no distinction between carbon dioxide emitted by biogenic and fossil-fuel sources.” EPA’s new carbon pollution standards for new power plants also count biogenic CO2 emissions.¹⁷

Landfill gas burning for energy is also not new or innovative. EPA lists 636 operational projects in the U.S.¹⁸ EPA data also shows that burning landfill gas for energy releases more CO2 and more methane than coal per unit of energy produced.¹⁹ This doesn’t even include the increased CO2 and methane released when landfills are managed as energy facilities using techniques that maximize gas production and cause more gas to escape capture.²⁰

Biofuels are often also going to violate the reduction of greenhouse gases requirement.²¹ Even the more “innovative” biofuels technologies, such as cellulosic biofuels, are starting to be commercially established in the U.S. and are not so new or innovative anymore, even if they actually could reduce greenhouse gas emissions.

Since the law does not set a baseline for what a “reduction” in greenhouse gases must be compared to, DOE ought to come up with a defensible, objective standard. It’s not acceptable to proceed with no standard and let applicants all rationalize their technologies to make them fit. Even the worst climate polluters have creative accounting to make it look like their incinerator technologies are carbon neutral or even carbon negative. For electricity producing facilities, no technologies with greenhouse gas emissions per unit of energy higher than

¹⁵ The science on this in recent years is summarized in “Biomass and Climate,” Energy Justice Network, May 2014. <http://www.energyjustice.net/biomass/climate> and the studies debunking biomass carbon neutrality are also compiled here: <http://www.energyjustice.net/content/biomass-library-scientific-reports#climate>

¹⁶ Center for Biological Diversity v. EPA, 722 F.3d 401 (D.C. Cir. 2013). [http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/\\$file/11-1101-1446222.pdf](http://www.cadc.uscourts.gov/internet/opinions.nsf/F523FF1F29C06ECA85257BA6005397B5/$file/11-1101-1446222.pdf)

¹⁷ U.S. Environmental Protection Agency, “Standards of Performance for Greenhouse Gas Emissions From New Stationary Sources: Electric Utility Generating Units,” proposed Jan. 8, 2014. <http://www2.epa.gov/carbon-pollution-standards> Page 85 states: “The proposed CO2 emission standards do not apply a different accounting method for biogenic CO2 emissions for the purpose of determining compliance with the standards.” See: <http://www2.epa.gov/sites/production/files/2013-09/documents/20130920proposal.pdf>

¹⁸ “Energy Projects and Candidate Landfills,” Landfill Methane Outreach Program, U.S. Environmental Protection Agency. <http://epa.gov/lmop/projects-candidates/index.html#map-area>

¹⁹ “Methodologies for Quantifying Pollution Prevention Benefits from Landfill Gas Control and Utilization,” EPA document #600SR95089, July 1995, p.33, Table 17.

²⁰ As noted in a report by the Sierra Club, after a year-long study, landfill gas burning for energy actually increases GHG emissions over standard dry tomb landfills. This occurs because landfills designed properly in accord with Subtitle D, with barriers and extraction systems to keep the site dry, and to prevent mobilization of pollutants into the environment, they have insufficient moisture to generate commercial volumes of methane. To generate sufficiently large methane volumes necessitates adding moisture by delaying installation of the cover and recirculating leachate. The result is increased near-term methane generation, at the same time as gas collection efficiency is degraded because the collection system depends upon a cover seal to function properly. Gas collection is also compromised by practices that reduce suction on the collection wells (to avoid pulling in oxygen from the surface that could kill the methane-generating bugs) and by methane cycling (turning off collection wells on a rotating basis to let methane levels recharge). See resources available at <http://www.energyjustice.net/lfg>

²¹ See studies compiled at <http://www.energyjustice.net/ethanol/climate>

coal or higher than the system average should be eligible. For biofuels projects, no fuels that emit more GHGs than petroleum should be permitted. If life-cycle analyses are used, as they should, it's important to look at increased emissions from having to recreate materials that would be destroyed when trash incineration is used. For biomass and biofuels, all inputs (including fertilizers) must be examined.

We urge that DOE set objective, science-based standards for what greenhouse gas reduction means, and in doing so, make it clear that so-called "waste-to-energy" projects and most, if not all, biofuels projects, are ineligible for Section 1703 loan guarantees.

SIGNED:

[Alianza pro Salud y Mejor Ambiente \(ASMA\)](#), PR (Angel Gonzalez, MD, FASAM, Spokesperson)
[Allegheny Defense Project](#), PA (Ryan Talbott, Executive Director)
[Allentown Residents for Clean Air](#), PA (Rich Fegley)
[Alliance for the Wild Rockies](#), MT
[American Environmental Health Studies Project](#), National (Paul Connett, PhD, Executive Director)
[Amigos del Río Guaynabo](#), PR (Myrna Conty, Spokesperson)
Ash Busters, PR (Eliza Llenza, Vice Chair, Executive Committee)
[Association of Roman Catholic Women Priests](#), National (Janice Sevre-Duszynska, Peace and Justice Priest)
[Beyond Toxics](#), OR
[Biofuelwatch](#), International (Rachel Smolker, Ph.D., Co-Director)
[Blue Ridge Environmental Defense League](#), NC, VA, TN, SC, AL, GA (Lou Zeller, Executive Director)
[Butte Environmental Council](#), CA (Robyn DiFalco, Executive Director)
[Capitalism vs. the Climate](#), CT (Dan Fischer, Co-Founder)
[Center for a Competitive Waste Industry](#), National (Peter Anderson, Executive Director)
[Citizen Power](#), PA (Ted Robinson, Esq., Staff Attorney)
Citizens' Alliance for Responsible Energy (CARE), IN (Mercedes Brugh)
Citizen's Climate Lobby - Eastbay California Group, CA (Antoinette "Toni" Stein, PhD)
[Citizens' Environmental Coalition](#), NY (Barbara Warren, Executive Director)
Citizens for a Safe Environment, NC (Deborah Kornegay, Co-chair)
Clean Air Now, NC (Dr. Carole Troxler, Chair)
[Clean Air Watch](#), National (Frank O'Donnell, President)
[Clean Energy Action](#), CO (RJ Harrington, Jr., Executive Director)
[Clean Water Action](#), National (Andy Galli, MD Program Coordinator)
[Climate First!, Inc.](#), DC (Ted Conwell, Lead Organizer)
[Coalición de Organizaciones Anti-Incineración de Puerto Rico](#), PR (Angel Gonzalez, MD, FASAM)
[Concerned Citizens for Clean Air](#), OR
Concerned Citizens of Shell Bluff, GA (Charles Utley)
[Connecticut Coalition for Environmental Justice](#), CT (Sharon Lewis, Executive Director)
[Crabshell Alliance of Baltimore](#), MD (Dagmar Fabian, Secretary)
[DC Environmental Network](#), DC (Chris Weiss, Executive Director)
[DelCo Alliance for Environmental Justice](#), PA (Frances Whittington, Co-Director)
[Dogwood Alliance](#), Regional (Scot Quaranda, Communications Director)
[Don't Waste Arizona](#), AZ (Steve Brittle, President)
[Downwinders at Risk](#), TX (Jim Schermbeck)

[Durham Environment Watch](#), Canada (Kerry Meydam, Founder)
[DurhamCLEAR](#), Canada (Doug Anderson, President)
[Earth Day Network](#), National (Kathleen Rogers, President)
[Earth Track](#), National (Doug Koplou, Founder)
[Earthjustice](#), National (James Pew, Esq., Senior Attorney)
[East Michigan Environmental Action Council](#), MI (Ife Kilimanjaro, Co-Director)
[Eco Advocates Northwest](#), OR
[Ecology Party of Florida](#), FL (Cara Campbell, Chair)
[Empire State Consumer Project](#), NY (Judy Braiman, President)
[Energy Justice Network](#), National (Michael Ewall, Esq., Director)
[Envision Frederick County](#), MD (Kai Hagen)
[Eureka Recycling](#), MN (Susan Hubbard, Chief Strategy Officer)
Florida Environmental Justice Network, FL (Karen Orr)
[Florida League of Conservation Voters](#), FL (Susie Caplowe)
[Florida League of Conservation Voters Education Fund](#), FL (Helen Spivey, President)
[Floridians Against Incinerators In Disguise](#), FL (Susie Caplowe, Director)
[Food & Water Watch](#), National (Jorge Aguilar, Southern Region Director)
[Forest Web](#), OR
[Friends of the Earth](#), National (Ben Schreiber, Climate and Energy Program Director)
Friends of the Fenholloway River, FL (Rebecca Edwards, Chair)
[Gainesville Citizens Care](#), FL (Karen Orr)
[Global Anti-Incinerator Alliance \(GAIA\)](#), International (Monica Wilson, US and Canada Program Director)
[Global Justice Ecology Project](#), National (Anne Petermann, Executive Director)
[GMO-Free Oregon](#), OR
[Grassroots International](#), International (Jovanna García Soto, Program Coordinator for Latin America)
[Grassroots Recycling Network](#), National (Gary Liss, Vice President)
[Green Delaware](#), DE (Alan Muller, PE, Executive Director)
[Green Party of Pennsylvania](#), PA (Jay Sweeney, Chair)
[Green State Solutions](#), IA (Mike Carberry, Director)
[Greenaction for Health and Environmental Justice](#), National (Bradley Angel, Executive Director)
[Greenbelt Climate Action Network](#), MD (Lore Rosenthal, Program Coordinator)
[Greenpeace USA](#), National (Larry Edwards, Forest Campaigner)
Grupo Arcibo 2015, PR (Fernando Marquez, Group Representative)
[Healthy Dubois County](#), IN (Norma Kreilein, MD, President)
[Heartwood Forest Council](#), Regional (Ernie Reed, President)
Help Our Polluted Environment (HOPE), FL (Ted Ezell, Chair)
Help Save the Apalachicola River, FL (Marilyn Blackwell, President)
[Howard County Climate Change](#), MD (Elisabeth Hoffman)
[Incinerator Free Brown County](#), WI (John Filcher, Chair)
[Incinerator-Free Lake County](#), IL (Barbara Klipp, Co-Founder and Spokesperson)
[Indiana Forest Alliance](#), IN (Myke Luurtsema, Hoosier Forest Watch Coordinator)
[Indigenous Environmental Network](#), International (Tom Goldtooth, Executive Director)
[Institute for Local Self-Reliance](#), National (Brenda Platt, Co-Director)

[Ironbound Community Corporation](#), NJ (Molly Greenberg, MSW, Environmental Programs Coordinator)
[Just Transition Alliance](#), National (Jose T. Bravo, Executive Director)
[Kentucky Student Environmental Coalition](#), KY (Cara Cooper, Campus Organizer)
[Labor Network for Sustainability](#), National (Joe Uehlein, Board President)
[Lake Erie Region Conservancy](#), PA (Tom Fuhrman, President)
Lane County Energy Round-Up, OR
League of Wilderness Defenders, OR
[Los Jardines Institute \(The Gardens Institute\)](#), NM (Richard Moore, Program Director)
Madres de Negro (Mothers in Black), PR (Silvia Gonzalez)
[Maryland Environmental Health Network](#), MD (Rebecca Ruggles, Director)
[Massachusetts Forest Watch](#), MA (Chris Matera, Founder)
[Midwest Sustainability Group](#), IL (Barbara Klipp, Executive Director)
[Minneapolis Neighbors for Clean Air](#), MN (Lara Norkus-Crampton RN, Coordinator)
[Missourians Organizing for Reform and Empowerment](#), MO (Jeff Ordower, Executive Director)
Moratorium NOW!, PA (Elizabeth Arnold)
[Movement Generation](#), CA (Michelle Mascarenhas-Swan, Core Collective Member)
[Native Forest Council](#), OR
Neighborhood Environment Watch, NC (Julius Kerr, Treasurer)
[Neighbors Against the Burner](#), MN (Jan Greenfield)
[New York Environmental Law and Justice Project](#), NY (Joel Kupferman, Esq., Executive Director)
[New York Public Interest Research Group](#), NY (Laura Haight)
[No Incinerator Alliance](#), MD (Patrice Gallagher, Co-Director)
[Nothing Left to Waste](#), MN (Susan Hubbard, Director of Content)
[Oregon Physicians for Social Responsibility](#), OR (Susan Katz, MD, President of the Board)
Our Forests, OR (Roy Keene)
[Patuxent Riverkeeper](#), MD (Frederick L. Tutman, CEO/Riverkeeper)
[Proposition One Campaign](#), DC (Ellen Thomas, Executive Director)
[Rettet den Regenwald e. V.](#), Germany (Reinhard Behrend, Director)
[Save America's Forests](#), National (Carl Ross, Director)
[Save Our Rural Oregon](#), OR (Paul Fouch)
[Saving Our Air Resources](#), WI (Robert Hughes, President)
[Sequoia ForestKeeper](#), CA (Ara Marderosian, Executive Director)
[Shale Justice Coalition](#), PA (John Trallo, Executive Committee member)
[Sierra Club](#), National (Barbara Klipp Chair, National Zero Waste Communities Team & Susan Corbett, Chair, Nuclear-Free Team)
[Sixth World Solutions](#), AZ (Janine Yazzie)
[Stafford Citizens for Open Government](#), VA (Bill Johnson, Deputy Director)
[Standing Together to Outlaw Pesticides](#), OR
[SustainUS](#), National (Matt Maiorana and Leslye Penticoff, Co-Chairs)
[TEDX, The Endocrine Disruption Exchange](#), National (Lynn Carroll, Ph.D., Senior Scientist)
[Texas Campaign for the Environment](#), TX (Melanie Scruggs, Program Director)
[Texas Drought Project](#), TX (Alyssa Burgin, Director)
[Transition Howard County](#), MD (Margo Dueterhaus, Steering Committee Chair)

[TURN - The Utility Reform Network](#), CA (Mark W. Toney, Ph.D., Executive Director)
[UPSTREAM](#), National (Bill Sheehan, Ph.D., Executive Director)
[Uranium Watch](#), UT (Sarah Fields, Program Director)
[Valley Watch, Inc.](#), IN (John Blair, President)
[Waukesha County Environmental Action League](#), WI (Charlene Lemoine, Chair)
[WE ACT for Environmental Justice](#), NY/DC (Dr. Jalonne L. White-Newsome, Federal Policy Analyst)
[Wicomico Environmental Trust](#), MD (Karen Lukacs, Executive Director)
[WildWest Institute](#), MT (Matthew Koehler, Executive Director)
[World Temperate Rainforest Network](#), International (Pat Rasmussen, Coordinator)
[Zero Waste Canada](#), Canada (Buddy Boyd)
[Zero Waste Detroit Coalition](#), MI (Ahmina Maxey, Community Outreach Coordinator)
[Zero Waste International Alliance](#), International (Richard Anthony, Chair)