



## Waste

### I. Introduction

In New York, waste is responsible for direct greenhouse gas (“GHG”) emissions of 46 million metric tons of CO<sub>2</sub> equivalents (“MMT CO<sub>2</sub>eq”), accounting for 12% of the state’s total gross emissions.<sup>1</sup> However, waste-related emissions are far broader than just those included in this direct estimate, as a large proportion of waste generated within the state is exported across state borders. This leads to an additional 16 MMT CO<sub>2</sub>eq of out-of-state emissions from waste generated within New York State (which would increase New York’s total emissions by 4%).<sup>2</sup> The majority of waste emissions are produced as methane, which has a global warming potential 84 times greater than CO<sub>2</sub>.<sup>3</sup> Thus, reducing waste emissions is critical to achieving CLCPA targets and particularly important to mitigating methane emissions.

<sup>1</sup> N.Y. Dep’t Env’t Conservation, *Waste: 2021 NYS Greenhouse Gas Emissions Report* 3 Table SR4.1 (2021), [https://www.dec.ny.gov/docs/administration\\_pdf/ghgwaste21.pdf](https://www.dec.ny.gov/docs/administration_pdf/ghgwaste21.pdf).

<sup>2</sup> *Id.*

<sup>3</sup> See E. Rsch. Grp., *Technical Documentation: Estimating Energy Sector Greenhouse Gas Emissions Under New York State’s Climate Leadership and Community Protection Act* 65 app. E (2021), [https://www.dec.ny.gov/docs/administration\\_pdf/energyghgerg.pdf](https://www.dec.ny.gov/docs/administration_pdf/energyghgerg.pdf); see also Intergovernmental Panel on Climate Change, *Climate Change 2014: Synthesis Report* 87 (2014), [https://www.ipcc.ch/site/assets/uploads/2018/02/SYR\\_AR5\\_FINAL\\_full.pdf](https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf).

The Draft Scoping Plan (“DSP”) recognizes that accurately measuring the GHG emissions from waste must account for extraction, production, transport, usage, and waste management.<sup>4</sup> However, the DSP stops short of including sufficiently high-impact policies to prevent products from becoming waste and curbing excessive production. The Final Scoping Plan (“FSP”) should emphasize more transformative strategies that prevent products from becoming waste in the first place rather than end-of-lifecycle strategies focused on emission capture that fail to reduce waste generation.

The Waste Chapter of the FSP should be constructed to move the State toward zero waste. While the DSP nods to a zero-waste future in its vision for 2050 and recognizes that a dramatic shift is needed to ensure “landfills are only used sparingly,” it lacks a holistic, coordinated framework for putting an end to landfilling. The DSP also does not include plans to end incineration, a significant oversight which would set us backward in terms of the emissions and environmental justice mandates of the law. The FSP should center zero-waste as the driving policy to achieve the climate goals and organize solutions in terms of the importance of waste hierarchy – reduce, reuse, recycle must be a core part of the waste management and emissions reduction strategy. In addition, the plan should improve consideration of environmental justice impacts of waste management.

While there are many positive policy solutions identified in the DSP, there are several gaps that if not addressed in the FSP, will significantly impede our progress to 85% emission reduction mandates. In these comments, we will focus on the following: the DSP’s lack of a comprehensive and wide-ranging plan for organics diversion; the DSP’s lack of clear policy pathways and priorities for transformative waste reduction, reuse, recycling, and extended producer responsibility; the DSP’s recommendation of beneficial uses of biosolids and biogases; and the DSP’s failure to identify a recommendation to phase out incineration.

## **II. Organic Waste Reduction and Recycling**

Organic food and yard waste is a major contributor to total waste emissions. In our homes, restaurants, and stores, we waste about one-third of the food produced and most of that is dumped in landfills where it rots and releases methane.<sup>5</sup> Food waste alone accounts for approximately 18% of the total municipal waste stream in New York.<sup>6</sup> This amounts to nearly 4 million tons of food waste annually, of which only 3% is currently diverted from landfills or combustion facilities.<sup>7</sup>

We support the overall organic waste strategy in the DSP and its emphasis on the importance of reducing food waste and diversion of food scraps. However, the DSP lacks a comprehensive

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<sup>4</sup> N.Y. Climate Action Council, *Draft Scoping Plan* (“DSP”) 236 (2021), <https://climate.ny.gov/-/media/Project/Climate/Files/Draft-Scoping-Plan.pdf>.

<sup>5</sup> FAO, *Global Food Losses and Food Waste: Extent, Causes and Prevention* (2011), <https://www.fao.org/3/mb060e/mb060e.pdf>.

<sup>6</sup> See DSP at 241.

<sup>7</sup> Indus. Econ., Inc., *Benefit-Cost Analysis of Potential Food Waste Diversion Legislation* 1 (2017), [https://s3.amazonaws.com/dive\\_static/diveimages/Benefit-Cost-Analysis-of-Potential-Food-Waste-Diversion-Legislation.pdf](https://s3.amazonaws.com/dive_static/diveimages/Benefit-Cost-Analysis-of-Potential-Food-Waste-Diversion-Legislation.pdf).

approach to food and yard waste diversion, such as mandatory state-wide composting. As described in detail below, the FSP must set clear targets and timelines for achieving improvements in food composting rates and reductions in food waste.

#### **A. The FSP should include broader strategies to facilitate state-wide composting.**

The FSP should include improved strategies to require composting and explore opportunities to close existing loopholes and caveats that reduce the effectiveness of current programs. For example, the Food Donation and Food Scraps Recycling Law requires food scrap generators to recycle their food waste only if within 25 miles of a composting, digesting, or other food waste recycling facility.<sup>8</sup> This unreasonably low distance limit significantly undermines the possible effectiveness of the law since, given the dearth of organics recycling facilities, this leaves most food scrap generators uncovered. This distance limit is unnecessary and unreasonable – for example, garbage is often trucked much farther than 25 miles to landfills, including out of state. This short distance also creates very small catchment areas for potential new recycling facilities, thus squelching any possible incentives for new composting or recycling facilities. The FSP must urge the legislature to revisit and revise this limit.

In addition, the law contains certain exemptions that further undermine its effectiveness. Specifically, it exempts several large food waste generators, and it does not apply in New York City where Mayor Adams recently proposed to suspend the expansion of the City’s composting program.

The DSP recommends that the law be amended to “phase in organics source-separation requirements, eventually ban combustion and landfilling of organics, and require a surcharge (fee per ton) on all waste generated in New York.”<sup>9</sup> While we support these recommendations — in particular, a ban on dumping organics in landfills is one of the most effective opportunities the State has to reduce this significant GHG source<sup>10</sup> — the DSP does not go far enough. The FSP should also recommend that (as noted above) the law eliminate or significantly increase the 25-mile limit, and that it eliminate the exemptions for large food waste generators and New York City. The FSP must prioritize State-side municipal collection of organics from all businesses and all residences. The FSP should facilitate a system in which local-scale composting is available and equitably geographically distributed (e.g., transforming local transfer stations into well-run composting/sorting/processing sites). Additionally, the FSP should recommend more on-site distributed composting for yard waste, which makes up about 12% of the waste stream.<sup>11</sup>

#### **B. The FSP should include bold strategies to reduce food waste.**

While it is critical to increase the number of composting and other organics recycling facilities around the state, especially near cities where the bulk of the state’s food waste is generated, is critical, policies to help achieve food waste reduction are equally important and need more robust discussion in the FSP. Tackling emissions from food waste requires policies

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<sup>8</sup> See DSP at 239-240.

<sup>9</sup> DSP at 241.

<sup>10</sup> See Peter H. Lehner and Nathan A. Rosenberg, *Farming for Our Future: The Science, Law, and Policy of Climate-Neutral Agriculture* 224-227 (2021).

<sup>11</sup> Facts and Figures about Materials, Waste and Recycling National Overview: Facts and Figures on Materials, Wastes and Recycling, EPA., <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials> (last updated July 14, 2021).

that incentivize both waste reduction and waste diversion. The FSP should focus on food waste reduction policies such as bulk food and food dispensary models, delivery system modifications in public institutions (such as changing dining room policies in state educational or correctional facilities), taxing overproduction of food, implementing enhanced digital demand planning systems in grocery stores to minimize waste, and using state purchasing power by reducing food waste and shifting to more climate-friendly – and healthier – menus in public institutions.

Lastly, the FSP should take bold steps to recommend a ban on the incineration or disposal of food waste. Limited exceptions may apply when food or yard waste that is too contaminated with plastic and other contaminants to meet a compost facility’s standards.

### III. Waste Reduction and Reuse

The Climate Justice Working Group (“CJWG”) responded to Strategy W2, *Waste Reduction, Reuse, and Recycling section*, stating that “the overall lack of emphasis on waste reduction and local scale diversion practices was staggering.”<sup>12</sup> Reducing waste at the source is essential. It not only reduces greenhouse gas emissions but also lowers the cost of disposal for municipalities and reduces pressure on municipal waste, recycling, and composting systems. Consistently wasting valuable resources whether they are food, home goods, hygiene products, or consumer goods has additional upstream economic, labor, and environmental impacts. These wasted resources have economic, resource, and labor inputs related to their production, processing and distribution. For example, a significant amount of total water, fuel, and fertilizer used in the U.S. was found to produce food that was subsequently wasted.<sup>13</sup>

A per ton surcharge on waste is a tried-and-true approach to creating a funding stream for waste reduction, reuse, and recycling infrastructure and programs while disincentivizing landfilling and incineration as waste management practices. Typically, these surcharges are added to per-ton tipping fees, and they can be charged to waste haulers or even at the generator-level so that households and businesses are taxed directly based on the waste they generate. These fees are also necessary to help shift consumer behavior and consumption. Fees collected can then be deposited in a dedicated fund and invested back into waste reduction measures, recycling improvements, and reuse/refillable infrastructure.

While the DSP recommends a surcharge on all waste generated in-state as a waste reduction strategy, this high-impact recommendation lacks detail and fails to recommend fees on overproduction. The FSP should add detail to the surcharge proposal and should immediately implement it as we work to reduce the volume of waste sent to landfills and incinerators.<sup>14</sup>

The reuse recommendations in the plan should also be fleshed out further, and the FSP should provide more specificity on the policy tools needed to reduce problematic single-use

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<sup>12</sup> DSP App. B at B-20.

<sup>13</sup> Esma Birisci & Ronald G. McGarvey, *Cost-versus Environmentally-Optimal Production in Institutional Food Service Operations*, 82 Socio-Economic Planning Sciences 101169, 3 (2021) <https://doi.org/10.1016/j.seps.2021.101169>.

<sup>14</sup> Sophia Jones, *Waste Surcharges to Fund Composting and More*, Inst. for Loc. Self-Reliance, <https://ilsr.org/rule/waste-surcharges/> (last visited June 17, 2022).

materials.<sup>15</sup> As recommended in the DSP, requiring retail outlets and food service to give single-use disposable products to their customers upon “request only” is a sound way to start turning off the tap of unwanted, unneeded plastic. We strongly support “Skip the Stuff” type policies to phase-out single-use plastic items but also encourage that the FSP give more guidance on what single-use products should be addressed.

Another critical aspect of waste reduction needed in the FSP is policy designed to support reusable and refillable options. The DSP mentions this in passing but fails to outline what actual policy solutions should be advanced and how to scale and fund reusable/refillable infrastructure. The FSP should include more concrete policies. For example, takeaway food containers may be a sensible place to start in terms of recommending reusable containers. Plastic containers for food delivery are overproduced, often unrecyclable, and unnecessary, as there are existing alternatives. For example, DeliverZero is a successful alternative to disposable plastic take-out containers, providing containers that can be washed and reused 1,000 times apiece.<sup>16</sup> DeliverZero services more than 130 restaurants in two boroughs of New York City. In addition, retailers such as Amazon should use reusable shipping containers (see more below). And in terms of refillable infrastructure, the FSP must recommend policies that require certain food to be provided in bulk, wide-spread development of bulk food dispensaries, and development of facilities designed to wash and redistribute refillable containers (e.g., bottle washing facilities).

#### **IV. Recycling and Expanded Producer Responsibility**

An effective and efficient recycling system is an ever-critical component to a waste strategy for curbing carbon emissions. Recycling helps save energy in the processing of materials for industrial and consumer use and reduces our needs for virgin resources, such as oil for plastics. Recycling programs also reduce the flow of materials, including organics, into landfills. Unfortunately, New York’s recycling system is sub-optimal and markets for recyclable materials have been in crisis since 2018 when China stopped buying the world’s recyclable material, in particular paper products from New York (known as the China National Sword policy).<sup>17</sup> While end-markets for some recyclable materials have improved in recent years, municipal recycling programs are still suffering losses amounting to millions of dollars each year, resulting in some municipal programs’ stopping the service altogether. Without effective end markets for recyclable material, more is being sent to landfills and incinerators, which is not compatible with reaching our climate goals.

The FSP must outline more clearly what policy measures are needed to fix our recycling system, as an optimal system is necessary to complement waste reduction efforts and extended producer responsibility (“EPR”) measures discussed below. In particular, universal labeling, expansion of the bottle bill, and support for municipal funding of curbside programs through

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<sup>15</sup> DSP at 242.

<sup>16</sup> DeliverZero, <https://instore.deliverzero.com/> (last visited June 17, 2022).

<sup>17</sup> Cheryl Katz, *Piling Up: How China’s Ban on Importing Waste Has Stalled Global Recycling*, Yale Environment360 (Mar. 7, 2019), <https://e360.yale.edu/features/piling-up-how-chinas-ban-on-importing-waste-has-stalled-global-recycling>.

EPR are necessary. The FSP must also ensure there is no space for advanced or chemical recycling.

In addition, banning production of non-recyclable materials would help reduce the volume of material crowding recycling streams and the volume of waste sent to landfills. Among the different categories of plastic, PET plastic bottles (labeled with a number 1 in the recycling triangle) and HDPE milk jugs (labeled as number 2) are recycled most consistently due to their economic viability.<sup>18</sup> Plastic resin types 3 and above, black plastics, and mixed materials (i.e., half film plastic half PETE plastic) are unlikely to be recyclable. Yet, these non-recyclable materials have been contaminating recycling streams because of their misleading recycling symbol label.<sup>19</sup>

In addition, banning non-recyclable plastics would help thwart emerging, non-proven, highly polluting chemical recycling technologies that burn these plastics, often producing fuels, which is inconsistent with the CLCPA. These technologies are marked with failure and waste, with only eight of 37 proposed facilities since 2000 currently operating and none of these making new plastic.<sup>20</sup> These failed projects wasted over \$2 billion in investments and taxpayer funds. Several of them ended with lawsuits over breach of contract and two with multimillion dollar fraud judgements.<sup>21</sup> The FSP should identify chemical or “advanced” recycling as inconsistent with meeting the mandates of the CLCPA and recommend it not be considered as a recycling solution.

Importantly, we also strongly support the DSP recommendation to expand and update the 1982 Bottle Bill and the FSP should prioritize this recommendation. Over its 40-year history, New York’s Bottle Deposit Law has proven to be an effective program in reducing litter and increasing recycling rates. It reduces roadside container litter by 70%, has a redemption rate of 64%, and in 2020, helped to recycle 5.5 billion plastic, glass, and aluminum beverage containers totaling 241,505 tons, at no cost to local governments.<sup>22</sup> By expanding the Bottle Deposit Law, New York can lead the way in reducing waste, litter, and greenhouse gas emissions.

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<sup>18</sup> Pang-Chieh Ho, *Smarter: Which Plastics Are Actually Recyclable?*, Consumer Reports (Mar. 1, 2022), <https://www.consumerreports.org/recycling/smarter-which-plastics-are-actually-recyclable-a4433898936/>.

<sup>19</sup> *Understanding Which Plastic Types Can be Recycled*, Rogue Disposal (Feb. 8, 2021), <https://roguedisposal.com/resources/education/recycling/understanding-which-plastic-types-can-be-recycled>.

<sup>20</sup> D. Patel et al., *All Talk and No Recycling: An Investigation of the U.S. “Chemical Recycling” Industry*, Global Alliance for Incinerator Alternatives 40 (2020) (citing Neil Tangri, *Waste Gasification & Pyrolysis: High Risk, Low Yield Processes for Waste Management* (2017)); Veena Singla, NRDC, *Recycling Lies: “Chemical Recycling” of Plastic is Just Greenwashing Incineration* (2022).

<sup>21</sup> Ivy Schlegel, Greenpeace Int’l, *Deception by the Numbers* 34 (2020), [https://www.greenpeace.org/usa/wp-content/uploads/2020/09/GP\\_Deception-by-the-Numbers.pdf](https://www.greenpeace.org/usa/wp-content/uploads/2020/09/GP_Deception-by-the-Numbers.pdf). (Citing Tangri N and Wilson A, Global Alliance for Incinerator Alternatives, *Waste Gasification & Pyrolysis: High Risk, Low Yield Processes for Waste Management* (2017), <https://www.no-burn.org/wp-content/uploads/Waste-Gasification-and-Pyrolysis-high-risk-low-yield-processes-march-2017.pdf>; Susan Thorneloe et al., EPA, *Assessment of Municipal Solid Waste Energy Recovery Technologies* xiv (2020), [https://cfpub.epa.gov/si/si\\_public\\_record\\_report.cfm?dirEntryId=350673&Lab=CESER&simplesearch=0&showcriteria=2&sortby=pubDate&timst%20type=&datebeginpublishedpresented=11/22/2019](https://cfpub.epa.gov/si/si_public_record_report.cfm?dirEntryId=350673&Lab=CESER&simplesearch=0&showcriteria=2&sortby=pubDate&timst%20type=&datebeginpublishedpresented=11/22/2019) (last visited Nov. 22, 2021).

<sup>22</sup> *New York’s Bottle Bill: Returnable Container Act (RCA)*, N.Y. Dep’t Env’t Conservation, <https://www.dec.ny.gov/chemical/8500.html> (last visited June 17, 2022); *Bottle Bill Resource Guide: New York*, Container Recycling Inst., <https://www.bottlebill.org/index.php/current-and-proposed-laws/usa/new-york> (last visited June 16, 2022).

Lastly, the FSP should recommend the State lead by example and start off a path of zero waste. As the DSP mentions, this starts with reviewing State procurement standards and lifecycle decision making tools, but the FSP should recommend fixing the State Surplus Property Program to allow surplus property to be donated, which is currently prohibited under this program.

Extended Producer Responsibility (“EPR”) frameworks and policies that attribute responsibility for waste management to producers rather than government and taxpayers are essential for the future of strategic waste reduction, management, and funding. These models are not new in New York but need to be expanded to cover several product streams given that the volume of the material that goes through curbside recycling is not sustainable from a waste volume perspective or from a municipal financing perspective.

A significant contributor to our recycling crisis is the fact that consumer brand-owners are disconnected from the end-of-life management of their product packaging. They have no incentive to reduce packaging waste, create reusable products, make packaging easier to recycle, or boost market demand by using more recycled content. EPR for product packaging and paper would shift the responsibility for the recovery of materials in curbside recycling programs from local governments and taxpayers to producers and brand owners. In doing so, EPR attributes recycling costs to those who benefit from the sale of consumer goods and decouples the financial risk from municipalities. An EPR program for paper and packaging also needs to include strong environmental standards and post-consumer content goals to drive real progress in waste reduction, increased recyclability, less toxic packaging, and decrease demand on natural resources.

The FSP must be clear that EPR policies and frameworks do not reduce waste in and of themselves but need to be coupled with other policies that reduce waste, such as an EPR policy. The FSP should prioritize an EPR policy for plastic and paper packaging that includes standards and targets for waste reduction, post-consumer content, elimination of toxins in packaging, and that prohibits chemical recycling.

## **V. Phase Out of Incineration**

Incineration is the third greatest contributor of GHGs in the waste sector (7%) after landfill and wastewater treatment, yet 15% of municipal waste stream is incinerated.<sup>23</sup> Waste incineration is incompatible with climate action and is both financially costly to municipalities and harmful to public health. While the DSP relies heavily on incineration as a solution to where “all of the above waste” can be diverted when landfills are being decommissioned, it does not call for the phase out of existing incinerators.

Waste-to-energy incineration facilities are the most expensive way to produce electricity, and the amount of electricity they produce is modest relative to the harm caused by the air pollutants released.<sup>24</sup> New York’s waste incinerators perform significantly worse in terms of cancer-causing hazardous air pollutants compared to other power plants in the state. The

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<sup>23</sup> DSP at 235.

<sup>24</sup> U.S. Energy Information Administration (Department of Energy), *Capital Cost Estimates for Electricity Generation Plants* (2010), [http://www.eia.gov/oiaf/beck\\_plantcosts/pdf/updatedplantcosts.pdf](http://www.eia.gov/oiaf/beck_plantcosts/pdf/updatedplantcosts.pdf).

technology is best for reducing the *volume* of waste, but the ash left over after burning still needs to be specially landfilled.

Moreover, burning waste perpetuates environmental injustice: in the U.S., nearly 80% of waste incinerators are located in low-income communities and/or communities of color.<sup>25</sup> It is a false solution to the problem of waste management — waste-to-energy as a waste management tactic is not aligned with Section 7(3) of the Climate Law.

These incinerators emit particulate matter (PM2.5 and PM10) which is linked to lung and heart disease, heavy metals like lead and mercury, and toxic chemicals like per- and polyfluoroalkyl substances (“PFAS”) and dioxins which build up in the human body as well as in other lifeforms and the environment. Per unit of waste processed, local pollutant emissions from waste incineration are generally worse than those from coal-fired power plants. Burning waste releases 14 times as much mercury as coal-fired power plants.<sup>26</sup> As New York State has dramatically reduced its mercury emissions, mercury pollution from waste burning remains a high source of this unnecessary, damaging air pollutant.<sup>27</sup> The inhalation of mercury vapor can produce harmful effects on the nervous, digestive and immune systems, lungs and kidneys, and may be fatal. The inorganic salts of mercury are corrosive to the skin, eyes and gastrointestinal tract, and may induce kidney toxicity if ingested. There is no safe level of exposure to mercury.<sup>28</sup>

Waste-to-energy also burns more energy than it produces— sometimes not even enough to run the incinerator itself. Financially, waste-to-energy has proven to be a bad investment for municipalities and has even bankrupted Harrisburg, Pennsylvania. The financing scheme to fund its trash-burning plant left the 150-year-old city struggling to pay \$68 million in interest in 2016.<sup>29</sup> Municipal bankruptcies are very rare. Additionally, tip fees at waste incinerators are two or three times higher than recycling or composting costs, and composting jobs create four times the number of local jobs per unit of waste processed than incinerators. The only conceivable tangible benefit of waste-to-energy is the reduction of the volume of waste, but volume can and should be tackled through sorting waste properly for waste elimination and reduction, composting, re-use, and recycling.

There is also the moral issue of continuing to burn trash where incinerators are located (i.e., environmental justice communities, disadvantaged communities, low-income communities,

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<sup>25</sup>Ana I. Baptista & Adrienne Perovich, *The New School: Tishman Env’t Design Ctr., U.S. Municipal Solid Waste Incinerators: An Industry in Decline* 4 (2019), [https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR\\_GaiaReportFinal\\_05.21.pdf](https://static1.squarespace.com/static/5d14dab43967cc000179f3d2/t/5d5c4bea0d59ad00012d220e/1566329840732/CR_GaiaReportFinal_05.21.pdf).

<sup>26</sup>N.Y. Dep’t of Env’tl Conservation, Case No. 03-E-0188, *Matter of the Application of Covanta Energy Corporation for Inclusion of Energy from Waste Facilities as an Eligible Technology in the Main Tier of the Renewable Portfolio Standard Program* (2011).

<sup>27</sup>Laura Haight, N.Y. Pub. Int. Rsch. Grp., *Connecting the Dots on Mercury Pollution: How Honeywell’s Failure to Capture Discarded Mercury Thermostats Contributes to Elevated Mercury Emissions in New York* 2 (2011), [https://www.nypirg.org/pubs/enviro/toxics/2011.12.21\\_NYPIRG\\_Honeywell\\_Report.pdf](https://www.nypirg.org/pubs/enviro/toxics/2011.12.21_NYPIRG_Honeywell_Report.pdf).

<sup>28</sup>*Mercury and Health*, World Health Org. (Mar. 21, 2017), <https://www.who.int/news-room/fact-sheets/detail/mercury-and-health>.

<sup>29</sup>Lisa Lambert, *Special Report: The Incinerator That May Burn Muni Investors*, Reuters (May 12, 2010), <https://www.reuters.com/article/us-muni-investors/special-report-the-incinerator-that-may-burn-muni-investors-idUSTRE64B2PM20100512>.



and communities of color) when source generation takes place in disproportionately whiter and wealthier households and communities.

For these reasons, the FSP should explicitly call for the phaseout of existing incinerators and ban the development of any new facilities and include benchmarks for weaning off incineration and expand on tactics to reduce reliance on municipal waste stream incinerators.

## **VI. Beneficial Use of Biosolids and Biogas**

The FSP should ensure any markets for waste do not lead to harm to human health and the environment. “Waste-to-energy” incineration and the use of biosolids, like sewage sludge for soil and asphalt amendments, are an attempt to create a market for waste, but they do so by putting human health and our environment at risk. Sewage sludge has a high number of contaminants in it depending upon what polluters are emptying into the public sewage system. Applications of contaminated sludge on soil can have costly and harmful long-lasting implications. For example, the Maine legislature is considering a \$100 million fund to compensate farmers whose land (and water) is contaminated with PFAS from state sanctioned sewage sludge applications as far back as the 1970s.<sup>30</sup>

While aerobic digestion may be an effective way to manage unavoidable food (and other organic waste), the FSP must be wary not to create incentives for increased generation of such waste. As noted in the DSP, the CJWG recommended that “caution should be taken to avoid biogas use intentionally or inadvertently leading to the extended use of fossil fuels.”<sup>31</sup> The FSP should focus on strategies to reduce waste generation and accumulation in the first place, rather than expanding end-of-lifecycle strategies like biogas. In particular, the strategies described above to reduce organic waste accumulation in landfills, including bans on organic waste in landfills, have a high potential to reduce methane generation. Creating a market for methane production through biogas fails to incentivize reducing waste generation and accumulation upstream, as it commodifies methane as a waste product rather than incentivizing reductions. Furthermore, biogas production is accompanied by sizable fugitive methane leaks and exposes communities located near sites of generation to co-pollutants.<sup>32</sup> (Relatedly, we discuss in our comments on the Agriculture and Forestry Chapter the need to not incentivize further expansion and consolidation of CAFOs by subsidizing biodigesters at CAFOs.)

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<sup>30</sup> S.P. 729, 130th Me., 2nd Sess., at 4 (Me. 2022),

<http://www.mainelegislature.org/legis/bills/getPDF.asp?paper=SP0729&item=1&snum=130>.

<sup>31</sup> DSP at 250.

<sup>32</sup> See Felipe Montes et al., *Mitigation of Methane and Nitrous Oxide Emissions from Animal Operations: A Review of Manure Management Mitigation Options*, 9 J. Animal Sci. 5070,5070-5094 (2013); See also Mathieu Dumont et al., *11 - Methane Emissions in Biogas Production*, in *The Biogas Handbook* 248-266

(2013), <https://www.sciencedirect.com/science/article/pii/B9780857094988500117>; See also Thomas K. Flesch et al., *Fugitive Methane Emissions from an Agricultural Biodigester*, 35 Biomass and Bioenergy 3927, 3927-3935 (2011); See also Jessica Fu, *Is California Giving Its Methane Digesters Too Much Credit?*, *The Counter* (May 19, 2022), <https://thecounter.org/is-california-giving-its-methane-digesters-too-much-credit/>; See Nicole Di Camillo, *Methane Digesters and Biogas Recovery - Masking the Environmental Consequences of Industrial Concentrated Livestock Production*, 29 UCLA J. Env't L. 364, 364-394 (2011), <https://escholarship.org/content/qt52g318rv/qt52g318rv.pdf?t=mv6dpy>.

Biogas captured from waste should also be limited to on-site use and no new transmission infrastructure should be publicly financed to support additional biogas. Expanding infrastructure for biogas can be harmful to environmental justice communities located near expansion projects, who are exposed to additional emissions and co-pollutants from construction, transportation, and other activities.<sup>33</sup> These harms offset any of the limited potential climate benefits from biogas production and must be considered. To avoid such outcomes, the FSP should ensure that any biogas generated through waste should be limited in use to avoid incurring additional emissions from transportation and infrastructure.

Separately, and consistent with the strategies described above to reduce waste generation upstream and reduce organic waste accumulation in landfills, the FSP should include strategies to require existing landfills (or at least those over a certain size) to adopt technologies to capture and destroy methane production at these facilities.

## VII. Conclusion

Reducing waste sector emissions is critical to achieving CLCPA targets and particularly important to mitigating methane emissions. The FSP should include more specific and accountable strategies and emphasize more transformative strategies that prevent products from becoming waste in the first place rather than end-of-lifecycle strategies that fail to reduce waste generation. In addition, the plan should improve waste management for environmental justice communities and prioritize zero waste efforts.

In summary, the FSP must:

- Include a state-wide strategy for diverting organic waste from landfills and incinerators, including revisions to the Food Donation and Food Scrap Recycling Law, bans on the incineration or disposal of food waste where possible, revisions to the State’s food delivery and food procurement programs to reduce food waste generation, and strategies to increase the number of composting and other organics recycling facilities.
- Include policy and strategy recommendations to reduce waste generation, including per ton surcharges on waste generation, policies to incentivize re-use, and policies to mandate retail recycling strategies.
- Revise general EPR policies to include waste reduction strategies, for example, ensuring paper and packaging EPR policies include post-consumer content requirements and reduction targets.
- Identify and prioritize strategies for achieving an optimal recycling system and ensuring false solutions, like chemical recycling, are not included under the umbrella of “recycling” strategies.
- Include strategies to support an end to waste incineration, including bans on organic waste incineration and bans on the development of new incinerators.
- Ensure that markets for waste do not lead to harm to human health and the environment through the use of sewage sludge, and that they do not create a market for biogas utilization.

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<sup>33</sup> See Phoebe Gittelson et al., *The False Promises of Biogas: Why Biogas Is an Environmental Justice Issue*. Env’t Just. (Online ahead of print May 26, 2021), <https://doi.org/10.1089/env.2021.0025>.

Respectfully submitted,

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Clean Air Coalition of WNY  
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Greater Region NY Chapter  
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Climate Reality Project, Long Island  
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Community Food Advocates

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