

This document has been prepared as part of the implementation project of Legal Pathways to Deep Decarbonization (Michael B. Gerrard and John C. Dernbach, eds. Environmental Law Institute [2019]) (LPDD). For background information on the project, see <https://lpdd.org>.

## MODEL STATE LAW TO DIVERT FOOD WASTE FROM LANDFILLS<sup>1</sup>

### I. FINDINGS; OBJECTIVES

- a. It is the policy of this state that Food Waste produced or generated by or in the state shall be diverted from landfills and redirected to a Green Disposal Facility or Composter.
- b. Residential Food Waste accounts for approximately [●] percent of Food Waste disposed of in the state's landfills.<sup>2</sup> The commercial sector, which includes [restaurants, grocery stores, *other types of commercial, industrial, and governmental entities that generate Food Waste in the state should be listed here*] accounts for the remaining [●] percent of Food Waste disposed of in the state's landfills.
- c. The breakdown of Food Waste in landfills results in significant emissions of methane, a potent greenhouse gas, as well as other greenhouse gases.
- d. The purpose of this Act is to divert Food Waste from landfills in an effort to reduce overall emissions of methane, carbon dioxide and other greenhouse gases resulting from Food Waste decomposing in landfills.

### II. DEFINITIONS

For the purposes of this Act:

- a. "Act" means the [*name of the Act*].
- b. "Compost" means the material derived from the Composting process.
- c. "Composter" means any bin or physical site that is engaged in Composting.
- d. "Composting" means the controlled aerobic biological decomposition of organic matter (including Food Waste) into compost.

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<sup>1</sup> See also (a) Model State Law Supporting Sustainable Management of Food Waste (see <https://lpdd.org/resources/lpdd-model-law-state-legislation-supporting-sustainable-management-of-food-waste/>), which sets forth a high-level proposal for how to manage food waste, including by diverting food waste from landfills, and (b) Model Local Resolution in Support of a Circular Economy (see LPDD Model Resolution: Local Resolution in Support of a Circular Economy - LPDD).

<sup>2</sup> See U.S. Environmental Protection Agency, *U.S. State and Local Waste and Materials Characterization Reports*, available at <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/us-state-and-local-waste-and-materials#va>, for additional information that may be available for a particular state.

- e. “Department” means [*the state administrative agency or department that is or will be responsible for waste disposal*].
- f. “Environmental Justice” means the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
- g. “Food Waste” means source separated material that is derived from processing or discarding of food, which may include pre-consumer and post-consumer food scraps.<sup>3</sup>
- h. “Green Disposal” means the disposal of Food Waste that results in net zero or negative greenhouse gas emissions.
- i. “Green Disposal Facility” means a facility that can process Food Waste through Green Disposal.<sup>4</sup>
- j. “Industrial-Scale Composter” means a [large-scale,] centralized Composter facility [that is capable of composting at least [●] tons of organic materials, including Food Wastes].
- k. “Municipality” means any political subdivision of the state, including a town, city, [or] borough[, consolidated town and city, or consolidated town and borough].
- l. “Person” means any individual, partnership, company, corporation, association, unincorporated association, joint venture, trust, government or any agency or political subdivision thereof (including Municipalities).

### III. PHYSICAL WASTE AUDIT AND FEASIBILITY STUDY<sup>5</sup>

- a. By [DATE], [the Department][each Municipality] shall have commissioned (i) a physical waste audit to identify the characteristics of Food Waste generated in [the state][such Municipality], which shall also include the categorization and quantification of food waste streams, and (ii) a feasibility study to (A) identify

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<sup>3</sup> This Model State Law does not address agricultural, yard or other organic waste; a program to account for these other organic waste streams can be developed using this Model State Law.

<sup>4</sup> States should consider whether existing wastewater treatment facilities can be retrofitted to co-treat solid wastes and Food Wastes.

<sup>5</sup> See U.S. Environmental Protection Agency, *Feasibility Study: Organic Waste Diversion in Columbia, South Carolina* (September 2017) (available at <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100SUMM.PDF?Dockey=P100SUMM.PDF>), for an example of a feasibility study conducted to evaluate the diversion of Food Waste from landfills.

existing Green Disposal Facilities and Industrial-Scale Composters [in the state][in the Municipality], (B) identify [Municipalities][zip codes][neighborhoods] not within [●] miles<sup>6</sup> of an existing Green Disposal Facility or Industrial-Scale Composter, (C) identify potential sites where new Green Disposal Facilities or Industrial-Scale Composters can be constructed [in the state][in the Municipality], (D) determine the feasibility and practicality of transporting Food Wastes by any Person not within [●] miles of an existing or proposed Green Disposal Facility or Industrial-Scale Composter to an existing Green Disposal Facility or Industrial-Scale Composter outside of such radius, and (E) evaluate the feasibility of onsite Composting at the source of such Food Waste.

- b. By [DATE]<sup>7</sup>, [the Department][each Municipality] shall have completed the physical waste audit and feasibility study [[**Option #1**] in accordance with [*insert applicable state law (if any) that would govern*]][[**Option #2**] and shall have held roundtable meetings with [*applicable decision-makers, community representatives, and experts*]<sup>8</sup> to interpret and discuss the results of the feasibility study] with the goal of (i) determining (A) the top sources and baseline characteristics of Food Waste generated in [the state][such Municipality], and (B) existing or potential capacity in [the state][such Municipality] to process Food Waste in Green Disposal Facilities or Industrial-Scale Composters, and (ii) making recommendations as to the feasibility of (A) diverting Food Waste to a Green Disposal Facility or Industrial-Scale Composter, (B) constructing additional infrastructure to divert and process Food Waste at Green Disposal Facilities or Industrial-Scale Composters, (C) existing hauling infrastructure to collect and transport diverted Food Wastes, and (D) distributing non-Industrial-Scale Composters for use to any Person resident in the state.<sup>9</sup>
- c. The results of the physical waste audit and feasibility study conducted in accordance with this Section III shall be made publicly available to all Persons in

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<sup>6</sup> In determining a cutoff distance, states should consider (i) population density, (ii) the potential volume of Food Waste that will be discarded at a Green Disposal Facility or Industrial-Scale Composter, and (iii) the net greenhouse gas emissions of disposing Food Waste at such Green Disposal Facility or Industrial-Scale Composter. This may be different for rural, suburban, and urban areas within a state. States should also consider whether Food Waste can be brought to a transfer station prior to disposal at a Green Disposal Facility or Industrial-Scale Composter.

<sup>7</sup> Depending on the scope of the feasibility study (e.g., entire state, certain Municipalities only), and any monetary or staffing constraints, a feasibility study could take as short as a three to six months or as long as twelve months.

<sup>8</sup> States should engage, at a minimum, experts in solid waste disposal, collection and composting, and wastewater treatment.

<sup>9</sup> As part of this process, states should consider whether there is any Person who should be excluded from compliance with this law (e.g., those outside of a certain radius of a Green Disposal Facility or Industrial-Scale Composter, or for whom onsite Compositing is not possible) until additional infrastructure is identified. The net greenhouse gas emissions of requiring a Person to comply with this law should be considered.

the [state][ Municipality] [*in accordance with applicable state law*][on the website established by the Department pursuant to Section IV(d)].<sup>10</sup>

#### IV. GREEN DISPOSAL FACILITIES AND COMPOSTERS; EDUCATIONAL PROGRAMS AND COMMUNITY OUTREACH; TECHNICAL ASSISTANCE<sup>11</sup>

- a. The Department shall develop, implement, and enforce accepted practices for the management of Composting and other forms of Green Disposal in the state.
  - i. All Green Disposal Facilities and Industrial-Scale Composters constructed, or that have commenced construction, after [the date of this Act][DATE] shall be constructed in compliance with the processes and standards described in this section. Retrofits and upgrades to any existing Green Disposal Facilities or Industrial-Scale Composters after [the date of this Act][DATE] shall be retrofitted and upgraded in compliance with such processes and standards. These accepted processes shall address:
    1. standards for the construction, alteration, or operation of an Industrial-Scale Composter or Green Disposal Facility;
    2. standards for facility operation, including acceptable quantities of product or inputs, vector management, odors, noise, traffic, litter control, containment management, operator training and qualifications, recordkeeping, and reporting;
    3. standards for siting of facilities, including siting and operation of Compost storage areas, bagging areas, and roads and parking areas;
    4. standards for the Composting process, including rotation, management of Compost piles, Compost pile size, and monitoring of Compost operations;
    5. standards for management of runoff from Compost facilities, including liquids management from the feedstock area, active Composting areas, curing areas, and Compost storage areas; the use of swales or stormwater management around or within a Compost

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<sup>10</sup> States should determine how best to make this information publicly available, taking into account Persons' access to the internet, community centers, libraries, and such other forums where information is regularly shared. To the extent there are residents (including businesses) that will be required to comply with this law, but otherwise might have limited or no access to the internet, alternative means of communication should be considered and established.

<sup>11</sup> States can consider whether it is appropriate to impose civil penalties on any Person constructing or operating an Industrial-Scale Composter or Green Disposal Facility, either for non-compliance Section IV(a)(i), or for failure to comply with conditions contained in any permits that will be required. States should consider whether there may be a chilling effect on the construction of Industrial-Scale Composters and Green Disposal Facilities if civil penalties are imposed at the construction phase.

facility; vegetative buffer requirements; and run-off management from tipping areas;

6. standards for trapping methane and other greenhouse gases generated onsite;
  7. Environmental Justice concerns for siting of Industrial-Scale Composters and Green Disposal Facilities, such as increased transport traffic, airborne particulates, odors, and vermin; and
- ii. The Department shall also develop guidelines and standards for onsite Composting (including at residential properties) and the curbside collection of Food Waste.
- b. By [DATE], the Department, in consultation with each Municipality, shall develop an education and community outreach program that is designed to educate Persons resident in the [state][Municipality] about the benefits and process of diverting Food Waste from landfills, including by providing guidance and specific instruction on how to separate Food Waste from other [organic and] solid wastes.
  - c. The Department shall develop a technical assistance services program for Municipalities and the public in connection with the implementation of this Act.
  - d. The Department shall establish a website for the administration of this Act. The website shall include general information for the public, including details about diverting Food Waste from landfills, what constitutes Food Waste that can be diverted, location of processing facilities and available hauling service providers, performance metrics, and information regarding [*financial assistance*].

## V. PROGRAM REQUIREMENTS

- a. The following Persons shall be subject to the requirements of Section V(b):<sup>12</sup>
  - i. **[Option #1]** beginning [DATE], [any Person][*sector*] who processes or produces [more than [AMOUNT] per year of] Food Waste in the [state][Municipality].
  - ii. **[Option #2]** beginning [DATE], [any Person][*sector*] [(A)] that are located within [●] miles of a Green Disposal Facility or Industrial-Scale Composter[, and (B) that are along a collection route established for the collection of Food Waste].

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<sup>12</sup> States can limit compliance to certain sectors (e.g., commercial, industrial, residential), or otherwise stagger the start dates for compliance based on, for example, the quantity of Food Waste produced by a source or group of sources, proximity to a Green Disposal Facility or Industrial-Scale Composter, or such other metrics as determined by the legislature or Department.

- b. Any Person meeting the criteria set forth in Section V(a) shall: (A) separate and dispose of Food Waste in the appropriate receptacle or otherwise ensure the transfer of Food Waste to a Green Disposal Facility or Industrial-Scale Composter, or (B) manage Food Waste onsite in accordance with the guidelines established by the Department.
- c. [The Department][Each Municipality] shall provide each Person meeting the criteria in Section V(a) a receptacle designated by the [the state][such Municipality] for collection of Food Waste prior to the compliance date.
- d. [Each Municipality shall incorporate the collection of Food Waste into existing solid waste collection routes to the extent practicable or establish new collection routes as necessary to allow any Person subject to the criteria set forth in Section V(a) to comply with Section V(b).]
- e. [The Department][Each Municipality] shall develop, implement, and enforce a pay-as-you-throw pricing system for Food Wastes, which system shall also take into consideration (i) the affordability of such pricing system for low-income residents and small businesses, and (ii) the ability of Industrial-Scale Composters to sell Compost to third-parties.

## VI. FINANCIAL ASSISTANCE<sup>13</sup>

### a. [Option #1] Grant Program

- i. Not later than [●] days after the date of enactment of this Act, the Department shall establish a capital expense grant program to award grants to [Municipalities][any Person] for the construction[, retrofit or upgrade] of a Green Disposal Facility or an Industrial-Scale Composter.
- ii. The [legislature] shall fund the capital expense program created by this Act with the following amount[s]: \$[●].<sup>14</sup> [Option #1] Any unused portion of such funds may be carried forward to the following year until such funds are expended. [Option #2] Any unused portion of such funds shall be returned to the [legislature] by [●].

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<sup>13</sup> A state can use any one or more of these financial assistance programs to support the implementation of a Food Waste diversion program.

<sup>14</sup> The state's legislature can fund these grants in its discretion or commit to providing funding once, annually, or for a specified period of time. In determining the amount of funding to be allocated to a grant program, states should consider the following: (i) the amount of money available to be allocated to the program by the legislature, (ii) the number of Industrial-Scale Composters and/or Green Disposal Facilities that the legislature or Department reasonably expects to be constructed or retrofitted in the state, (iii) the expected costs associated with such construction or retrofitting, and (iv) the percentage of such costs that the legislature would reasonably expect to subsidize on a per facility basis.

- iii. The funds awarded by the Department may be used only for the construction or retrofit and upgrade of a Green Disposal Facility or Industrial-Scale Composter, which may also include the (A) purchase of Food Waste receptacles for distribution to any Person within the service area of such Green Disposal Facility or Industrial-Scale Composter, (B) establishment of additional or expanded collection routes to collect Food Waste.
- iv. To be eligible to receive a capital expense grant under this Act, a [Municipality][Person] shall submit to the Department an application at such time, in such manner, and containing such information as the Department shall require, and the Department shall assess the viability of the proposed project and the eligibility of the applicant.
- v. [Each [Municipality][Person] receiving funds under this section shall collect and submit data reasonably requested by the Department, such as volume, type, and source of Food Waste collected, for each facility for which funding is received once the Green Disposal Facility or Industrial-Scale Composter opens for operation, and shall continue to do so every [quarter] for [five] years.]
- vi. [Beginning not later than [●] years after the date of enactment of this Act, the Department shall annually submit to the [legislature] and make publicly available a report on the progress and implementation of this section.]

**b. [Option #2] Rebate Program**

*Comment: States should consider whether to implement a rebate program to the extent any Person purchases a Composter for onsite use in order to comply with this Act.*

- i. For purposes of this section, the following terms shall have the meaning set forth in Section VI(b):
  - 1. “Onsite Composter” means a Composter used onsite and such other tools and equipment for use in Composting onsite (in each case other than for Industrial-Scale Composting) as determined by the Department.<sup>15</sup>
  - 2. “Fund” means the Green Disposal Rebate Fund.
  - 3. “Program” means the Green Disposal Rebate Program established pursuant to this section.

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<sup>15</sup> States can consider whether only certain specified or otherwise qualified vendors (e.g., home improvement stores, grocery stores, online vendors) can sell Commercial Composters eligible for a rebate under this program.

4. “Purchaser” means any Person resident in the state who purchases an Onsite Composter.
- ii. There is hereby established a Green Disposal Rebate Program for the purchase of Onsite Composters.<sup>16</sup> The Program shall be administered by the Department.<sup>17</sup>
  - iii. Not later than [●] days after the date of enactment of this Act, the Department shall establish a rebate fund for the purchase of Onsite Composters by Purchasers. [[●] percent of the Fund shall be allocated for the payment of rebates to [low-income][small business] Purchasers.]<sup>18</sup>
  - iv. The [legislature] shall fund the Program with the following amount[s]: \$[●].<sup>19</sup> [Beginning [DATE], and each year thereafter, the Department shall provide a recommended appropriation to the Fund.] [**Option #1**] Any unused portion of such funds may be carried forward to the following year until such funds are expended. [**Option #2**] Any unused portion of such funds shall be returned to the [legislature][general fund] by [●].
  - v. Beginning on [DATE], any [Purchaser]<sup>20</sup> of an Onsite Composter shall be eligible for a rebate of \$[●], subject to the availability of funds in the Fund.
  - vi. The Department shall determine the best method to administer the Program. By no later than [DATE], the Department shall establish a process whereby a Purchaser may apply for a rebate under this section by submitting proof of purchase of an Onsite Composter, [income documentation satisfactory to the Department to the extent income level is used as a qualifying criteria for the rebate,] and such other information deemed necessary by the Department. The Department will issue rebates to Purchasers pursuant to this section, subject to availability of funds in the Fund.
  - vii. The Department shall report annually to the [legislature] on or before [DATE] regarding the implementation and administration of the Program.

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<sup>16</sup> States can expand the rebate program to include other tools and equipment that may be used for onsite Composting.

<sup>17</sup> The agency responsible for implementing a rebate program can be an agency different from the agency implementing the Food Waste diversion program.

<sup>18</sup> States can also consider whether to establish a voucher program in addition to or in lieu of a rebate program.

<sup>19</sup> The state’s legislature can fund these grants in its discretion or commit to providing funding once, annually, or for a specified period of time.

<sup>20</sup> States can limit the scope of the rebate program to low-income residents and small businesses, or otherwise offer a higher rebate amount for low-income residents and small businesses.



The report shall include information concerning the number of rebates issued under this section, the amounts expended, interest accrued, any moneys remaining in the Fund, and such other information as deemed appropriate by the Department.

**c. [Option #3] Tax Credits**

- i. For purposes of this section, the following terms shall have the meaning set forth in Section VI(c):
  1. “Onsite Composter” means a Composter used onsite and such other tools and equipment for use in Composting onsite (in each case other than for Industrial-Scale Composting) as determined by the Department.
  2. “Purchaser” means any Person resident in the state who purchases an Onsite Composter.
- ii. With respect to the tax years commencing on or after [DATE], [but prior to [DATE]], there is allowed to any Purchaser a credit against the income tax imposed by [*the state tax code*] against such Purchaser, not to exceed [AMOUNT], for the purchase of an Onsite Composter.<sup>21</sup>
- iii. If a credit authorized in this section exceeds the income tax due on the income of the Purchaser for the taxable year, the excess credit may not be carried forward and shall be refunded to the [Purchaser][state].
- iv. A Purchaser may not receive the credit authorized in this section more than once every [five (5)] years. However, a Purchaser who has received a credit authorized in this section within the past [five (5)] years will not preclude a spouse or dependent of such Purchaser from receiving a credit authorized in this section during such period, regardless of whether they file jointly or separately.
- v. [This Section VI(c) shall not apply to an Onsite Composters purchased after [DATE]].

**d. [Option #4] Municipal Bond Program**

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<sup>21</sup> States can develop a tax credits program that gets smaller over time, and whether to give larger tax credits to low-income residents and small businesses of the state.

*Comment: To the extent permitted by state law, states and Municipalities should consider whether to issue bonds to fund the construction of Green Disposal Facilities or Industrial-Scale Composters.*

- VII. OTHER. The Department shall prescribe such regulations as are necessary to carry out the provisions of this Act.