



MODEL ORDINANCE ESTABLISHING A PAY-AS-YOU-THROW PROGRAM FOR RESIDENTIAL MUNICIPAL SOLID WASTE¹

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¹ While the Model refers to “municipalities” (which are typically defined as cities and towns) and “municipal governments,” it also can be used in other types of local jurisdictions, such as counties.

1.0 FINDINGS

- 1.1 WHEREAS, approximately 146 million tons of municipal solid waste were landfilled in the United States in 2018, the majority of which consisted of materials—including plastics, paper and paperboard, glass, metals, and compostables—that could have gone to materials recycling or organics recycling;²
- 1.2 WHEREAS, Pay-As-You-Throw (PAYT), a municipal solid waste collection system in which households are charged on the basis of the amount of trash they dispose of, significantly reduces trash disposal and increases materials recycling and organics recycling at the household level,³ thereby diverting municipal solid waste from landfills and incinerators,⁴ which in turn typically:
 - 1.2.1 Decreases greenhouse gas emissions from landfilled and incinerated municipal solid waste,
 - 1.2.2 Reduces the harmful public health and environmental impacts of landfills and incinerators,
 - 1.2.3 Decreases vehicle miles traveled by and emissions from municipal solid waste haulers,⁵
 - 1.2.4 Lowers municipal solid waste management costs associated with disposal, and
 - 1.2.5 Reduces the need to expand and create new landfills, which are costly and disproportionately sited in low-income communities and communities of color;⁶
- 1.3 WHEREAS, PAYT has been adopted in thousands of jurisdictions of various sizes, and according to surveys, more than 90 percent of residents in communities using PAYT report that they prefer PAYT to the previous system in place;⁷
- 1.4 WHEREAS, PAYT can provide significant cost savings to [Municipal Government]⁸ and to local households that reduce trash disposal;⁹ and
- 1.5 WHEREAS, relative to a flat-fee system, PAYT results in fairer trash collection rates whereby, similar to unit-based pricing for electricity and other utilities, households that generate and dispose of more trash pay more, the [Municipal Government] hereby adopts the following measures.

2.0 GOALS AND PURPOSES. It is intended that this Ordinance No. ____ will enact a PAYT program to:

- 2.1 Decrease landfilling and incineration of municipal solid waste in favor of reduction, materials recycling, and organics recycling by raising awareness among and providing a financial incentive to households¹⁰ in [Municipality]; and
- 2.2 Establish a residential municipal solid waste management pricing scheme that promotes transparency, efficiency, and fairness by charging households according to the amount of trash they generate, in line with payment structures for other utilities such as water and electricity.

2 U.S. Environmental Protection Agency (hereinafter EPA), “National Overview: Facts and Figures on Materials, Wastes and Recycling,” last updated December 3, 2022, <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/national-overview-facts-and-figures-materials>.

3 Lisa A. Skumatz and Juri Freeman, *Increasing Recycling Now! Implementing Recycling and Pay As You Throw (PAYT) Ordinances, Legislation, or Contracting: Practical Guide and Model Language*, Skumatz Economic Research Associates, Inc., August 2008, http://www.paytnow.org/PAYT_OrdinancesANDLegislationReportSERA_v4PartIwithattachments.pdf. **Note: Lisa Skumatz is a leading expert and groundbreaking researcher on PAYT; her work, including a 2008 model ordinance, informed this Model and is frequently cited in these commentaries.**

4 Ibid. See also Hilary Crisan-Heavilin (ed.), “WasteZero Releases Report on Impact Of Pay-As-You-Throw Programs,” *Recycling Today*, June 2018, <https://recyclingtoday.com/news/wastezero-report-pay-as-you-throw-programs/>; and Neil Seldman, “Metering Residential Garbage Can Pave the Way to Zero Waste,” Institute for Local Self-Reliance, August 2018, <https://ilsr.org/metering-residential-garbage-can-pave-the-way-to-zero-waste/>.

5 Tammy Zborel, “Municipal Action Guide—Waste Reduction: Strategies for Cities,” National League of Cities, accessed May 12, 2023, http://paytorg.wpengine.com/wp-content/uploads/2015/07/Guide_NLC_Waste_Reduction_Strat_2011.pdf.

6 See, e.g., Robert Bullard, “The Mountains of Houston: Environmental Justice and the Politics of Garbage,” *Cite* 93, Rice Design Center, Winter 2014, <https://drrobertbullard.com/wp-content/uploads/2014/07/Final-2014-Bullard-Cite-Article.pdf>.

7 Lisa A. Skumatz, “PAYT Frequently Asked Questions,” Skumatz Economic Research Associates, 2008, http://www.paytnow.org/PAYT_CO_faqpaysERA_v6.pdf.

8 The cost savings that PAYT provides to municipal governments typically come in the form of decreased disposal costs, such as tipping and hauling fees. These funds can then be used to advance other municipal priorities. Connecticut Department of Energy & Environmental Protection, “Save Money and Reduce Trash (SMART),” last updated April 2021, <https://portal.ct.gov/DEEP/Reduce-Reuse-Recycle/Payt/Save-Money-and-Reduce-Trash>.

9 Seldman, “Metering Residential Garbage.”

10 The Model is intended to establish PAYT for residential municipal solid waste, and as such, it refers to “households.” A municipal government may include businesses in its PAYT program but should be aware of any differences in the ways that local laws and regulations address residential versus commercial waste services. For example, many municipal governments that operate waste collection services for households do not offer waste collection for businesses. See, e.g., Pittsburgh Mun. Code Title 6, §619.01-04.

3.0 DEFINITIONS¹¹

- 3.1 **Compostables:** Organic materials that can be composted, including food waste, yard waste, compostable serviceware, and other materials.¹²
- 3.2 **Composting:** Biological decomposition of organic constituents under controlled conditions.
- 3.3 **Container:** A reusable receptacle provided by [Municipal Government] or a private hauler that has a tight-fitting cover to contain and store trash, recyclables, or compostables.¹³
- 3.4 **Disposal:** The act of discarding municipal solid waste, typically by sending to landfills or incinerators.
- 3.5 **Extra compostables:** Compostables (as defined in Subsection 3.1) that overflow from the container provided for a household's given organics recycling service level.
- 3.6 **Extra recyclables:** Recyclables (as defined in Subsection 3.15) that overflow from the container provided for a household's given materials recycling service level.
- 3.7 **Extra trash:** Trash (as defined in Subsection 3.16) that overflows from the container provided for a household's given trash service level.
- 3.8 **Household:** One housing unit and all of its occupants, regardless of their relationship to one another.
- 3.9 **Materials recycling:** The activities involved in collecting and processing recyclables into raw materials to be used in lieu of virgin materials in the manufacturing of new products. Materials recycling does not include organics recycling, incineration, combustion, energy recovery, fuel generation, "chemical recycling," "advanced recycling," or hazardous chemical generation.
- 3.10 **Multifamily unit:** One of multiple households (as defined in Subsection 3.8) in a single building.
- 3.11 **Municipal solid waste:** Discarded materials resulting from residential, commercial, or institutional activities, including trash, recyclables, and compostables and generally excluding agricultural waste, manufacturing waste, and hazardous waste.
- 3.12 **Organics recycling:** The activities involved in collecting and processing compostables into new materials, particularly to be used as soil amendments, including through composting and anaerobic digestion.
- 3.13 **Pay-As-You-Throw (PAYT):** A municipal solid waste collection system in which households are charged in proportion to the amount of trash they generate and dispose of and are charged at a higher rate for trash than for recyclables and compostables. Also commonly referred to as "Save-As-You-Throw," "unit-based pricing," "volume-based pricing," "variable rate pricing," or "Save Money and Reduce Trash (SMART)."
- 3.14 **Private hauler:** A nongovernmental person or entity that is paid to collect, transport, or both collect and transport trash, recyclables, compostables, all three, or a combination thereof, including, but not limited to, those selected to operate in municipally designated franchise zones or similar systems. Typically, a private hauler contracts with or is licensed¹⁴ by the government.
- 3.15 **Recyclables:** Items that can be processed by means of materials recycling in lieu of being disposed of in landfills or incinerators.¹⁵

11 For purposes of consistency, municipal governments may prefer to use definitions from their existing ordinances, regulations, or policies.

12 The materials that organics recycling facilities or systems are able to process may vary; therefore, the municipal government and private haulers should clearly communicate acceptable materials to households. For example, some composters no longer accept compostable serviceware due to issues with contamination and challenges in processing the materials. See, e.g., U.S. Composting Council, "USCC Response to Oregon Composters," April 22, 2019, <https://www.compostingcouncil.org/page/BlogUSCC-ResponseToOregonComposters>.

13 While some municipalities use specially marked plastic trash bags for their PAYT program, the Model requires reusable containers to avoid adding additional plastic bags to the municipal solid waste stream. For more information on PAYT containers and system designs, see Massachusetts Department of Environmental Protection, *Pay-As-You-Throw: An Implementation Guide for Solid Waste Unit-Based Pricing Programs*, January 2004, <https://www.mass.gov/doc/massdep-pay-as-you-throw-implementation-guide/download>.

14 Terminology varies across local governments; the Model refers to private hauler "licensing," which is common language (e.g., in Austin), though many municipal governments refer to "permitting" instead (e.g., Nashville). Austin Resource Recovery, "Get a Private Hauler License," accessed September 1, 2023, <https://www.austintexas.gov/department/get-private-hauler-license>; and Metropolitan Government of Nashville & Davidson County, "Private Collection Permits," accessed September 1, 2023, <https://www.nashville.gov/departments/water/waste-and-recycling/private-collection-permits>.

15 Municipal governments and private haulers should clearly communicate to households which materials are and are not recyclable in the local materials recycling system. See, e.g., Kane County, Illinois, "Recycling Guidelines," accessed September 6, 2023, <https://www.countyofkane.org/recycling/pages/curbsideguidelines.aspx>.

- 3.16 **Trash:** Discarded materials resulting from residential, commercial, or institutional activities, excluding manufacturing waste and hazardous waste as well as recyclables or compostables that are separately collected and processed for materials recycling or organics recycling. Materials designated as trash are typically disposed of in landfills or incinerators.
- 3.17 **Undue hardship:** A condition occurring when a compliance burden is unreasonable or excessively costly for a household to bear.
- 3.18 **Waste service:** The collection, transport, and drop-off of municipal solid waste at a public or private facility for appropriate disposal or processing.
- 3.19 **Yard waste:** Leaves, branches, grass clippings, and other organic trimmings from a garden or yard.

4.0 FOUNDATIONAL PROGRAMS: MATERIALS RECYCLING AND ORGANICS RECYCLING¹⁶

- 4.1 As foundational support for a PAYT program that reduces trash disposal, [Municipal Government] shall adopt¹⁷ programs for materials recycling¹⁸ and for organics recycling.¹⁹ These programs shall include curbside collection²⁰ of household recyclables and compostables respectively.
- 4.2 [Municipal Government] and any private hauler that offers collection services for recyclables, compostables, or both recyclables and compostables²¹ pursuant to a municipal contract or license at a minimum shall:
 - 4.2.1 Provide household²² curbside recyclables and compostables collection at the same intervals and on the same days of the week as curbside trash collection;²³
 - 4.2.2 Comply with any standards set by [Municipal Government] that pertain to items accepted for materials recycling and organics recycling;
 - 4.2.3 Decline to collect:
 - 4.2.3.1 Trash commingled with recyclables, compostables, or both,
 - 4.2.3.2 Recyclables commingled with trash, compostables, or both,
 - 4.2.3.3 Compostables commingled with trash, recyclables, or both, and

¹⁶ Section 4 requires programs for collecting and processing recyclables and compostables. However, many municipalities do not yet have the capacity to implement an organics recycling program, particularly one involving curbside collection, and may tailor the model accordingly. Section 5 can help such municipalities make progress toward an organics recycling program without mandating one. See, e.g., GreenBlue, “Mapping Urban Access to Composting Programs,” accessed August 21, 2023, <https://greenblue.org/work/compostingaccess/> (noting that roughly 27 percent of people in the 1,000 most populous U.S. cities have access to a food waste composting program).

¹⁷ Municipal governments may tailor the language in this Section to add requirements to existing materials recycling programs and organics recycling programs.

¹⁸ Robust recycling programs are essential to the success of PAYT so that households have an alternative to trash disposal. See, e.g., EPA, “General Public—Throw Away Less and Save,” April 1997, <https://archive.epa.gov/wastes/conservation/tools/payt/web/html/public.html>.

¹⁹ A municipality’s organics recycling program may include collection service(s) for food waste, yard waste, additional materials such as compostable serveware, or (ideally) all of the above. For information on designing organics recycling programs, see, e.g., British Columbia Ministry of Environment and Climate Change Strategy, Best Management Practices for Curbside Collection of Residential Organic Waste, 2021, https://www2.gov.bc.ca/assets/gov/environment/waste-management/organic-waste/org-infrastructure-program/best_management_practices_organic_waste_curbside_collection.pdf; and Nora Goldstein, “Residential Food Scraps Collection Access in the U.S.—The Programs,” BioCycle, November 9, 2021, <https://www.biocycle.net/residential-food-scraps-collection-access-in-the-u-s-the-programs/>.

²⁰ The Model calls for curbside collection, a common municipal practice largely due to car-centric development and urban sprawl, but PAYT programs can also be successful with alternative approaches. See, e.g., South Kingstown, Rhode Island, “Trash & Recycling,” accessed August 23, 2023, <https://www.southkingstownri.com/392/Trash-Recycling> (noting that households may either contract with a private hauler or bring their trash and recyclables to a local transfer station, where recyclables drop-off is free and trash drop-off is charged at a variable rate); and Metropolitan Government of Nashville & Davidson County, “Recycling and Waste Items Convenience Centers,” accessed August 31, 2023, <https://www.nashville.gov/departments/water/waste-and-recycling/recycling/convenience-centers> (listing drop-off locations for compostables).

²¹ Some municipal governments reduce or waive licensing fees for entities that only haul compostables and/or recyclables in an effort to avoid monopoly power inuring to private waste haulers that offer collection services for all three streams (trash, recyclables, and compostables). See, e.g., Austin Resource Recovery, “Get a Private Hauler License”; and Neil Seldman, “Monopoly and the U.S. Waste Knot,” Institute for Local Self-Reliance, December 4, 2018, <https://ilsr.org/monopoly-and-the-us-waste-knot/>.

²² “Households” include multifamily units that are serviced individually for collection of municipal solid waste. Jurisdictions may vary as to whether their PAYT program applies to multifamily units with communal container(s) and collection point(s) shared among multiple households, given the logistical challenges associated with implementing unit-based pricing among such multifamily units. See Section 7 for more information.

²³ All municipal solid waste collection should ideally be offered on the same days and in the same intervals to encourage household participation in recyclables and compostables collection services. See, e.g., Ft. Collins Mun. Code Ch. 15 Art. XV §15-413(a)(2). A municipal government may offer recyclables and/or compostables collection less frequently but in all cases should make collection schedules for trash, recyclables, and compostables clear and easily accessible to households. See, e.g., Austin Resource Recovery, “My Collection Schedule,” accessed September 6, 2023, <https://www.austintexas.gov/myschedule> (allowing residents to search by address for collection schedules and offering collection day reminders by text, email, or phone).

4.2.4 Deliver recyclables and compostables only to recycling or processing facilities that comply with all applicable state and local laws and regulations.

4.2.4.1 [Municipal Government] shall monitor private hauler compliance with this Section's materials recycling and compostables recycling mandates through its contracting and licensing processes.

5.0 ORGANICS RECYCLING ASSESSMENT²⁴

5.1 Given that PAYT programs are most successful when households are provided with regular curbside collection of compostables, [Municipal Government] shall assess the potential PAYT program impacts and feasibility of instituting or bolstering curbside compostables collection and processing that is consistent with Section 4 organics recycling requirements.

5.2 [Municipal Government] shall assess the impact and feasibility of the following:

5.2.1 New or expanded pilot projects for curbside compostables collection and processing;²⁵ and

5.2.2 Interim and supplemental measures such as providing or increasing food scrap drop-off locations, offering backyard composting education and discounted backyard composting bins,²⁶ and fostering community composting projects.²⁷

6.0 PAYT PROGRAM AND COMPONENTS²⁸

6.1 **Municipally Operated Solid Waste Collection Requirements:**²⁹ [Municipal Government] shall establish a PAYT program³⁰ for residential municipal solid waste.

6.1.1 Pricing System

6.1.1.1 [Municipal Government] shall employ a variable rate pricing system designed to incentivize households to generate less trash and to increase materials recycling and organics recycling.³¹

6.1.1.2 The pricing system shall be informed by input received pursuant to Section 8.

6.1.2 Price Levels³²

6.1.2.1 [Municipal Government] shall set unit-based price levels for service of trash containers of varying types, numbers, and sizes.³³

²⁴ Many municipalities do not yet have the capacity to implement an organics recycling program, particularly one with curbside collection. Section 5 is intended to help move a municipality toward an organics recycling program without yet mandating one.

²⁵ See, e.g., Nashville, where the city's curbside compostables collection service is in pilot stage, and Austin, which now widely offers curbside compostables collection after a successful pilot. Metropolitan Government of Nashville & Davidson County, "Food Scraps Pickup Pilot," accessed September 25, 2023, <https://www.nashville.gov/departments/water/zero-waste-nashville/food-scraps-pickup>; and Austin Resource Recovery, "Curbside Composting Collection," accessed May 25, 2023, <https://www.austintexas.gov/composting>.

²⁶ See, e.g., City of Bowie, Maryland, "Backyard Composting," accessed May 26, 2023, <https://www.cityofbowie.org/950/Composting>.

²⁷ For information and resources on community composting, see Institute for Local Self-Reliance, "Composting for Community," accessed May 26, 2023, <https://ilsr.org/composting>.

²⁸ Section 6 of the Model is divided into three subsections for each of three arrangements: municipally operated haulers, contracted private haulers, and licensed private haulers. Some municipalities may have an open market in which private haulers are not subject to licensing requirements. In these municipalities (or other forms of local government), it may be difficult to implement and enforce a successful PAYT program. See, e.g., Mary Shinn, "City of Colorado Springs Exploring Rules for Trash Haulers," *The Gazette*, June 2022, https://gazette.com/news/government/city-of-colorado-springs-exploring-rules-for-trash-haulers/article_4c2de46c-e5d4-11ec-a337-cf53f527b496.html.

²⁹ Municipal governments that operate their own collection systems may or may not also operate processing or disposal facilities. As of 2018, roughly half of landfills were privately owned, accounting for roughly 85 to 90 percent of all permitted landfill capacity. Arlene Karidis, "Why Some Landfills Are Becoming Privatized, While Others Remain Public," *Waste360*, September 18, 2018, <https://www.waste360.com/landfill-operations/why-some-landfills-are-becoming-privatized-while-others-remain-public>.

³⁰ Municipal governments should be aware of any state-level PAYT-related legislation and its implications for the design and implementation of a municipal PAYT program. See, e.g., Vermont's Universal Recycling Law, passed in 2012, which includes a provision requiring all municipalities in the state to implement PAYT by July 1, 2015. 24 V.S.A. § 2202a.

³¹ A municipal government must determine whether to take a "full cost accounting" approach, under which the PAYT program covers all costs associated with municipal solid waste management. Alternatively, some fixed costs related to municipal solid waste management could remain in the tax base, while the PAYT program covers collection and disposal costs. See EPA, *EPA Resources: Full Cost Accounting for Municipal Solid Waste Management: A Handbook*, accessed June 4, 2023, <https://archive.epa.gov/wastes/conserves/tools/fca/web/html/epadocs.html>.

³² The Model takes an approach whereby each household must select a service level, but there are several options for setting rate structures and price levels. For example, municipal governments could set a pricing system that defaults to a flat-rate fee and corresponding container size for all households, and then a rate adjustment proportional to the trash each household sets out for collection. For more details on price level structures, see Janice L. Canterbury and Gordon Hui, *Rate Structure Design: Setting Rates for a Pay As You Throw Program*, EPA Office of Solid Waste, accessed May 12, 2023, <https://archive.epa.gov/wastes/conserves/tools/payt/web/pdf/rsdhandbook.pdf>.

³³ To strongly incentivize reducing trash disposal, Skumatz and Freeman recommend setting price levels such that doubling trash service volume results in at least an 80 percent cost increase to households. Skumatz and Freeman, *Increasing Recycling Now!*

6.1.2.1.1 [Municipal Government] shall set price levels for curbside pickup of extra trash³⁴ that is not placed in the containers provided to households pursuant to this Ordinance.

6.1.2.2 [Municipal Government] shall provide and service materials recycling and organics recycling containers free of charge³⁵ or at a price level not to exceed the standard price of the lowest trash service level.³⁶

6.1.2.2.1 [Municipal Government] shall offer curbside pickup of extra recyclables or compostables that are not placed in the containers free of charge (within specified limitations, if any) or at a price level not to exceed the standard price of the lowest trash service level.

6.1.3 [Municipal Government] shall establish a process for setting reduced rates for, or providing waivers to, households for which the pricing system presents an undue hardship.³⁷

6.1.4 Price levels shall be reviewed and revised by [Municipal Department] annually to ensure that households are appropriately incentivized to generate less trash and increase materials recycling and organics recycling.³⁸

6.2 Private Hauler Contract³⁹ Requirements

6.2.1 To the extent consistent with existing contractual provisions and obligations, [Municipal Government] shall revise existing contracts as practicable or enter new contracts for residential municipal solid waste collection, including trash collection, that require private haulers to establish a PAYT program by:

6.2.1.1 Providing variously sized containers consistent with any municipal requirements;

6.2.1.2 Setting unit-based price levels for use of variously sized, municipally approved or provided trash containers;

6.2.1.3 Providing households the opportunity to select the size and number of trash containers that they receive;⁴⁰

6.2.1.4 Monitoring and supporting customer compliance with collection requirements established pursuant to Section 13;⁴¹ and

6.2.1.5 Complying with Section 12 reporting requirements.

34 While municipal governments may require households to schedule an appointment for bulky trash pickup due to the size of the item(s), extra trash can be set out for collection alongside a household's regular trash container. A municipal government may define units of extra trash by size (e.g., Seattle's pricing per "bundle") or may charge per extra trash bag (e.g., Brookline, Massachusetts's overflow bags and Austin's stickers to mark extra trash bags). Seattle Public Utilities, "Garbage Rates," accessed May 3, 2023, <https://www.seattle.gov/utilities/your-services/accounts-and-payments/rates/collection-and-disposal/garbage-rates>; Brookline Department of Public Works, "Trash Billing Info," accessed May 9, 2023, <https://www.brooklinema.gov/3581/Trash-Billing-Info>; and Austin Resource Recovery, "Extra Trash Stickers," accessed May 9, 2023, <https://www.austintexas.gov/extratrash>.

35 Note that some municipal governments embed the price of materials recycling, organics recycling, or both into the trash fee charged to households, enabling the municipal government to provide and service recyclables containers, compostables containers, or both free of charge. See Lisa Skumatz and Juri Freeman, *Pay As You Throw (PAYT) in the US: 2006 Update and Analysis*, Skumatz Economic Research Associates, Inc., December 2006, <https://archive.epa.gov/wastes/conservation/tools/payt/web/pdf/sera06.pdf>.

36 See, e.g., Seattle Public Utilities, which does not charge households for recyclables collection and charges a lower rate to service the largest available compostables container than it does to service the smallest available trash container. Seattle Public Utilities, "Rates," accessed August 4, 2023, <https://www.seattle.gov/utilities/your-services/accounts-and-payments/rates>.

37 See, e.g., Denver, which offers instant rebates to eligible low-income households. Denver, "Recycling & Trash Service Rebate Application," accessed August 4, 2023, <https://denver.prelive.opencities.com/Government/Agencies-Departments-Offices/Agencies-Departments-Offices-Directory/Recycle-Compost-Trash/Resources/Expanded-Service/Trash-Rebate>.

38 In some cases, municipal governments may want to dictate these amounts/ratios via ordinance. A municipal government also can choose to set a maximum rate that a private hauler may charge for waste collection. See, e.g., New York City Business Integrity Commission, "Maximum Rates," accessed May 15, 2023, <https://www.nyc.gov/site/bic/industries/maximum-rates.page>.

39 Municipalities that use a franchise zone or trash district system (whereby municipal governments assign areas or zones for which they enter exclusive contracts with private haulers) can impose the same requirements through the bidding/private hauler selection process and ensuing long-term contracts. Mallory Szczepanski, "Need to Know: Commercial Franchise Zones Explained," Waste360, January 2017, <https://www.waste360.com/commercial/commercial-franchise-zones-explained>.

40 Many municipal governments also offer the option to select the size and the number of recyclables containers, compostables containers, or both. In such cases, pricing should be structured so it does not disincentivize materials recycling and organics recycling. See, e.g., Oakland, where households pay the same amount for recyclables collection and for organics collection regardless of the container size they select, and Nashville, which offers multiple recyclables containers at no additional cost to households (note, though, that Nashville does not have a full PAYT program). Oakland Recycles, "Monthly Collection Service Rates for Single Family Dwellings," May 26, 2023, <https://www.oaklandrecycles.com/wp-content/uploads/2022/03/Oakland-Rates-SFD-1-4-units-July-2023-june-2024-pub5-26-23.pdf>; and Metropolitan Government of Nashville & Davidson County, "Trash Collection," accessed October 23, 2023, <https://www.nashville.gov/departments/water/waste-and-recycling/trash-collection>.

41 A municipal government may monitor and support customer compliance with collection requirements instead of assigning that responsibility to private haulers. For example, San Francisco is serviced by private hauler Recology, but the San Francisco Environment Department is responsible for outreach, education, and compliance related to the city's PAYT program. San Francisco Environment Department, "Zero Waste—Frequently Asked Questions (FAQs)," accessed August 23, 2023, <https://sfenvironment.org/zero-waste-faqs#what-role>.

6.2.2 [Municipal Department] shall review, at regular intervals, private hauler compliance with contractual provisions, including those required by this Section, and may impose any contractually authorized sanctions or penalties for noncompliance.

6.3 Licensed Private Hauler Requirements

6.3.1 [Municipal Department] shall review the pricing system and price levels of private haulers at the time of municipal license application and renewal.⁴² In addition to any existing criteria, license applications and renewals shall be granted only to private haulers that demonstrate they will establish a PAYT program by:

6.3.1.1 Providing variously sized containers consistent with any municipal requirements;

6.3.1.2 Setting unit-based price levels for use of variously sized municipally approved or provided household trash containers;

6.3.1.3 Providing households the opportunity to select the size and number of trash containers that they receive;

6.3.1.4 Monitoring and supporting customer compliance with collection requirements established by [Municipal Government] pursuant to Section 13; and

6.3.1.5 Complying with Section 12 reporting requirements.

6.3.2 [Municipal Department] shall review at regular intervals private hauler compliance with license provisions, including those required by this Section, and may impose sanctions or penalties for noncompliance to the extent consistent with applicable license or municipal code provisions, including but not limited to suspension or revocation of license.

7.0 MULTIFAMILY UNITS

7.1 The PAYT program shall apply to households in multifamily units that are serviced individually for collection of municipal solid waste.

7.2 [Municipal Government] shall assess the feasibility of including multifamily units with communal container(s) and collection point(s) shared among multiple households and shall adjust service as appropriate based on the assessment.

8.0 COMMUNITY ENGAGEMENT

8.1 [Municipal Government] shall consult residents of [Municipality] and other key stakeholders before and throughout design and implementation of the PAYT program, with particular attention to engaging individuals and community-based organizations from chronically excluded communities.⁴³ Public engagement measures may include, but are not limited to:

8.1.1 Soliciting public comments;

8.1.2 Holding public meetings,⁴⁴ and

8.1.3 Assembling a PAYT advisory committee that includes stakeholders from [Municipal Government], the waste management industry, and the community.⁴⁵

⁴² See, e.g., Johnson County, Kansas, which requires the director of the Environmental Department to “review a hauler’s proposed volume based rate structure at the time of license application or annual license renewal to ensure that the proposed rate structure meets the intent and requirements of this Code.” Johnson County Code, App. G: Code of Regulations for Solid Waste Management, Art. Johnson County Code of Regulations for Solid Waste Management, Art. 4 §5(b)(3), https://library.municode.com/ks/johnson_county/codes/code_of_resolutions?nodeId=PTIVAP_APXGCORESOWAMA#.

⁴³ For more information on meaningful community engagement and public participation, see, e.g., EPA, “Public Participation Guide,” last updated July 5, 2023, <https://www.epa.gov/international-cooperation/public-participation-guide>.

⁴⁴ A municipal government should ensure that public meetings are inclusive and accessible to all community members by adopting practices such as holding them at varying times of day and locations, offering child-care services, providing options to join virtually, and providing language translation services.

⁴⁵ See, e.g., Nashville’s Solid Waste Master Plan Task Force, which comprised “various agencies, organizations, educational institutions and individuals” who provided input on the Solid Waste Master Plan at each phase of development and implementation. Metropolitan Government of Nashville & Davidson County, “Davidson County Long-Term Zero Waste Master Plan,” accessed May 11, 2023, <https://www.nashville.gov/departments/water/zero-waste-nashville/zero-waste-master-plan>.

9.0 EQUITY/PREVENTION OF UNDUE HARDSHIP

- 9.1 [Municipal Government] shall establish a process by which households may apply for reduced price levels for waste collection, waivers of Subsection 13.1 collection requirements, or both.⁴⁶
- 9.2 All customer notice materials and outreach efforts conducted pursuant to this Ordinance shall be appropriately translated for households in communities with a substantial number of residents who speak languages other than English.
- 9.3 [Municipal Government] shall implement any other measures deemed necessary to ensure that no household in [Municipality] faces undue hardship as a result of implementation of this Ordinance, including but not limited to households with members who are low-income,⁴⁷ elderly, or disabled⁴⁸ or who speak languages other than English.⁴⁹

10.0 CUSTOMER NOTICE⁵⁰

- 10.1 Private haulers shall provide written notice to their affected customers of changes to their service as a result of instituting PAYT at least 90 days prior to PAYT implementation and thereafter on an annual basis. Notice shall include, but is not limited to, information about:
 - 10.1.1 The new rate structure;
 - 10.1.2 PAYT container size options;
 - 10.1.3 Resources on household municipal solid waste reduction and the benefits of PAYT; and
 - 10.1.4 Where to direct concerns about or report problems with complying with the PAYT program.⁵¹
- 10.2 All customer notice materials shall be appropriately translated for households in communities with a substantial number of residents who speak languages other than English.⁵²

11.0 BILLING⁵³

- 11.1 Customers shall be billed⁵⁴ directly for waste service at least monthly.⁵⁵
- 11.2 If multiple municipal services are included in one bill, waste service charges shall be an individual line item on all household bills.
- 11.3 Household bills shall delineate price levels by number and size of container(s).

⁴⁶ For example, Mansfield, Connecticut, offers income-based reduction of trash collection fees. Mansfield Connecticut, “Fee Waiver Ordinance,” accessed May 11, 2023, <https://www.mansfieldct.gov/234/Fee-Waiver-Ordinance> (including a sample fee waiver application); and Mansfield Code Ch. 122 Article 3 (2014), <https://ecode360.com/11924893>.

⁴⁷ In addition to reduced rates, mechanisms to prevent undue hardship for low-income customers can include a credit on the overall bill for collection services, coupons, or a predetermined number of containers (or carts/bags/stickers) free of charge. In addition, municipal governments should implement targeted educational campaigns to provide households across all income levels with practical tips for reducing their trash charges. EPA, “Special Populations,” accessed May 15, 2023, <https://archive.epa.gov/wastes/conservetools/payt/web/html/top19.html>.

⁴⁸ For elderly and disabled customers, measures to prevent undue hardship could include physical assistance with moving containers (which already may be provided as part of the municipality’s waste service) or reduced price for collection of medically necessary trash.

⁴⁹ Equity measures include multilingual education and outreach efforts. See, e.g., Jordan Perry and Linda Breggin, “Overview of Multilingual Outreach, Translation, and Language Justice Resources,” Environmental Law Institute, May 2022, <https://www.eli.org/food-waste-initiative/publications>.

⁵⁰ Effective outreach is crucial to ensure that households are prepared for PAYT program implementation. In addition to municipal outreach pursuant to Section 8, a municipal government may impose requirements on private haulers that include but are not limited to holding public meetings, distributing written materials that are tailored to specific populations, issuing press releases, displaying information at local businesses, and sending utility inserts. See EPA, “Education and Outreach,” last updated February 21, 2016, <https://archive.epa.gov/wastes/conservetools/payt/web/html/top5.html>.

⁵¹ The municipal government or private hauler should establish a phone number, web page, or other “hotline” to receive and respond to any household questions about the PAYT program. See, e.g., Janice L. Canterbury, *Pay As You Throw: Lessons Learned About Unit Pricing of Municipal Solid Waste*, EPA Office of Solid Waste, 49, accessed May 12, 2023, <https://archive.epa.gov/wastes/conservetools/payt/web/html/lessons.html>.

⁵² See Perry and Breggin, “Overview of Multilingual Outreach.”

⁵³ For a PAYT program to meet its goals, households must be billed for collection services directly (rather than, e.g., covering the cost of waste service as part of a property tax). To ensure that they are made aware of trash collection costs and the potential savings associated with a lower service level, all participating households should receive an itemized bill. Skumatz and Freeman, *Increasing Recycling Now!*

⁵⁴ Because arrangements vary, the Model does not dictate which entity sends bills to households for waste services. Municipal governments should make clear the entity responsible for billing households (i.e., the municipal government or private hauler[s]) and how the bill is delivered (i.e., separately or as a distinct item in a bill that includes charges for other services).

⁵⁵ If not monthly, the billing interval should be relatively frequent (i.e., at least quarterly) so that customers can regularly see the money they save by reducing their trash generation. Skumatz and Freeman, *Increasing Recycling Now!*

12.0 PRIVATE HAULER REPORTING AND COMPLIANCE

- 12.1 All private haulers in [Municipality] shall submit a quarterly⁵⁶ report to [Municipal Department] on or before [date corresponding to start of fiscal or calendar year], and quarterly thereafter, in an electronic format acceptable to [Municipal Department]. The report shall include, but is not limited to:
 - 12.1.1 Total number of customers served;
 - 12.1.2 Number of customers at each service level;
 - 12.1.3 Total amount of trash collected (expressed in tons);
 - 12.1.4 Total amount of recyclables⁵⁷ and compostables collected (expressed in tons); and
 - 12.1.5 Total operational costs.
- 12.2 Reports submitted pursuant to this Section shall include a certification in a form acceptable to [Municipal Department].
- 12.3 [Municipal Department] may obtain relevant private hauler records to ensure compliance with the requirements of this Ordinance.

13.0 HOUSEHOLD REQUIREMENTS AND COMPLIANCE ASSISTANCE⁵⁸

- 13.1 Consistent with this Ordinance's PAYT mandate and [other applicable municipal code provisions],⁵⁹ households shall:
 - 13.1.1 Place all municipal solid waste in the appropriate trash, recyclables, and compostables containers provided to them by [Municipal Government] or private hauler;
 - 13.1.2 Place only trash, recyclables, and compostables approved by [Municipal Government] in the containers;
 - 13.1.3 Keep trash, recyclables, and compostables separate from one another, placing each into its proper container; and
 - 13.1.4 Follow any specifications set by [Municipal Government] or private hauler regarding disposal of extra municipal solid waste that does not fit in the appropriate container provided.
- 13.2 [Municipal Government] shall set penalty procedures and amounts consistent with state and municipal law for any household that violates collection rules pursuant to Subsection 13.1 in an amount not to exceed [dollar amount consistent with comparable municipal code sections].⁶⁰
 - 13.2.1 [Municipal Department] shall consider equity impacts in setting penalties and developing enforcement strategies and priorities that are consistent with measures adopted pursuant to Section 9.⁶¹
 - 13.2.2 [Municipal Department] shall assess the adequacy of existing penalties for illegal dumping⁶² to determine whether they will support effective implementation of the PAYT program established in Section 6.

56 Quarterly reporting is intended to gather meaningful data without overburdening private haulers. Municipal governments may require private haulers to report more or less frequently depending on local circumstances. For example, Los Angeles requires private haulers to prepare recycling service collection reports monthly and to submit them on a quarterly basis; Austin requires private haulers to submit volume reports semiannually. Los Angeles Sanitation & Environment, "Waste Hauler Permit Program," accessed May 15, 2023, <https://bit.ly/LA-waste-hauler-permit>; and Austin Administrative Rules for Solid Waste Services, Ch. 15-6 § 9.8.

57 If multiple types of recyclables are collected separately, a municipal government may opt to include separate tracking for each material.

58 For a discussion of enforcement challenges and approaches, see Continuous Improvement Fund, "Collection Policies: Pay as You Throw: Enforcement," accessed May 15, 2023, <https://thecif.ca/centre-of-excellence/collection/curbside-collection-policy/pay-as-you-throw-payt/>.

59 The Model consolidates and presents all PAYT program components in consecutive sections. In practice, however, municipal governments may separate PAYT components and codify them in separate parts of their municipal codes. For example, Denver's requirements pertaining to household trash collection are separate from other PAYT requirements. See, e.g., Ch. 48, Article IV of Denver's municipal code.

60 State and municipal penalty rules, procedures, and amounts vary widely. Accordingly, each municipal government should set penalty amounts consistent with existing state and local requirements. Dick M. Carpenter II, Ricard Pochkhanawala, and Mindy Menjou, "Municipal Fines and Fees," Institute for Justice, April 30, 2020, <https://ij.org/report/municipal-fines-and-fees/>.

61 Municipal governments should emphasize education and compliance assistance over penalization and should be careful to avoid overburdening chronically excluded households or communities with penalties. See EPA, "Special Populations."

62 While illegal dumping is a common concern for communities considering PAYT, research shows that PAYT generally does not lead to meaningful increases in illegal dumping. Skumatz and Freeman, *Increasing Recycling Now!*

13.2.3 During the 12 months following the effective date of this Ordinance, [Municipal Government] shall not impose penalties for violations but shall provide warnings to violators.

13.2.4 Outreach and education materials shall be provided directly to any household that violates collection rules pursuant to Subsection 13.1.⁶³

14.0 ANNUAL REPORT ON PROGRAM EFFECTIVENESS

14.1 [Municipal Department] shall issue an annual public report on the effectiveness of the PAYT program.⁶⁴

15.0 SEVERABILITY

15.1 This Ordinance and the various parts thereof are hereby declared to be severable. If any provision, sentence, clause, phrase, or word of this Ordinance or any application of it is held to be invalid by a decision of a court of competent jurisdiction, then such decision shall not affect the validity of the remaining portions or applications of this Ordinance.

16.0 EFFECTIVE DATE

16.1 This ordinance takes effect [number of days] after its [adoption/publication].

⁶³ See, e.g., Austin, which issues two written notices of noncompliance before levying an administrative fine and ensures that city staff are “available to assist responsible parties by providing guidance, technical assistance, and information.” Austin Administrative Rules for Solid Waste Services, Ch. 15-6 § 8.12. In response to violations and in general outreach efforts as PAYT is rolled out, municipal governments should educate households on ways to reduce trash and therefore costs. See, e.g., Addison County [Vermont] Solid Waste Management District, “Beginner’s Guide to Reducing Waste,” accessed August 7, 2023, <https://www.addisoncountycycles.org/recycling/reduce-reuse/plastics-reduction>.

⁶⁴ If applicable, the report should also include an assessment of the potential impact and feasibility of instituting or bolstering organics recycling in the municipality, pursuant to Section 5.