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Testimony on the State of New York City Recycling

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Thank you for the opportunity to testify today. I am Ana Champeny, Vice President for Research at the Citizens Budget Commission (CBC), a nonpartisan, nonprofit think tank and watchdog devoted to constructive change in the finances and services of New York State and City governments. CBC has conducted research on the City's solid waste management system for decades.

While recycling in New York City has improved in recent years, collection productivity remains low, collection costs remain high, and many recyclables are ultimately disposed of with refuse. Increasing recycling with a focus on cost-effective strategies can deliver both fiscal savings and environmental benefits. CBC recommends that the City:

- Institute a volume-based fee for waste and tailor it to incentivize recycling, organic composting, and waste reduction;
- Negotiate operational and work-rule changes with labor that would improve productivity of recycling and refuse collection; and
- Expand organic composting by increasing drop-off sites, encouraging use of in-sink disposers, and piloting on-site anaerobic micro digesters in buildings, instead of a citywide curbside collection program.

NYC's recycling rates continue to lag its relatively modest 23 percent goal, despite some recent improvement. Since fiscal year 2011, the City's overall curbside diversion rate—the share of curbside waste that is recycled—increased just 1.6 percentage points, from 15.4 percent to 17.0 percent in fiscal year 2022. Other cities have achieved higher diversion rates; for example, Seattle's diversion rate was 62.7 percent in 2020.

New Yorkers continue to throw many recyclables out with the trash. According to the Department of Sanitation (DSNY) 2017 Waste Characterization Study, the capture rate—the share of recyclable material properly sorted—was only about 50 percent. The other half was mixed with garbage and destined for disposal. Low diversion and capture rates have clear negative environmental consequences, as refuse waste is sent primarily to landfills, which in 2020 generated nearly 81,000 metric tons of carbon dioxide, or 3 percent of the City's annual greenhouse gas emissions.

Low capture and diversion rates also have negative fiscal consequences. In fiscal year 2021, refuse disposal cost the City $203 per ton, while recycling processing cost $53 per ton. For each additional ton of recyclables properly sorted and recycled, the City would have saved $150.

Increasing the quantity recycled would also improve collection productivity and reduce recycling collection costs. Recycling collection cost $615 per ton in fiscal year 2021, 80 percent more than the $342 per ton cost of collecting refuse. Collection costs per ton are high because the average recycling truck fills just half of its capacity per shift. Productivity declined in fiscal year 2022, with DSNY collecting 5.2 tons of recycling per truck shift, down from 5.8 in 2021. Half-empty trucks represent low productivity.

More recyclables at the curb would increase productivity without requiring additional truck shifts, thereby reducing the collection cost per ton. A volume-based fee, which CBC has supported since 2015, directly connects a resident's waste collection and disposal cost with the amount of waste they generate. These fees can incentivize residents to reduce the total amount of waste they throw out as well as to properly separate recyclables, by offering free or substantially lower fees for recycling collection. The fees could also be structured to encourage participation in specialized recycling programs, such as organic composting or textiles recycling. The City had planned to undertake a study about how to implement a volume-based fee in New York City, given the challenges posed by dense, high-rise apartment buildings with limited space to store recyclables; it contracted with a consultant in 2018 but halted the study before any funds were expended. CBC urges the City to reconsider conducting this study.

Other approaches that could improve collection productivity include using GIS technology to optimize collection routes; negotiating work-rule changes that would increase productivity, such as enabling longer shifts or routes that cover more distance; and increasing in the use of one-worker automated collection vehicles, where appropriate.

Beyond traditional paper, metal, glass, and plastic recyclables, the largest opportunity to increase recycling in the City is organic waste, which comprises 34 percent of the waste stream. Previous efforts at curbside organic collection have been plagued by low participation; in fiscal year 2020, New Yorkers separated just 4 percent of organic waste suitable for composting. Given the

limited volume of organic waste that was separated, the curbside organic program faced low productivity and high collection costs, possibly reaching $1,700 per ton. In 2016, CBC estimated a citywide curbside organics program could cost between $177 million and $251 million annually and would likely face operational challenges due to the current lack of regional organic waste processing capacity. In fact, DSNY has sent organic waste 253 miles away to Auburn, further raising disposal costs and offsetting some of the environmental benefits of composting with additional vehicle-miles traveled.

Given the inefficiency of curbside collection of organics, the City should pursue alternatives, such as expanding drop-off sites, encouraging in-sink food disposal, or incentivizing use of anaerobic micro digesters. The City's current 209 organics drop-off sites translate to 1 site per 42,000 people. Additional drop-off sites could help divert more organic waste, especially when paired with volume-based fees, and incentivize private organics processors to open new capacity in the region. In-sink disposal units, while common in most of the United States, are rare in New York City due to a prior ban, which was overturned in 1997. According to CBC's research, incentivizing their use could divert 149,000 tons of organics per year, reducing the volume of organics in the waste stream by 14 percent. Other options could include exploring the use of on-site anaerobic micro digesters, which could help reduce organics waste in larger apartment buildings. Recent advances in micro digesters have improved their feasibility, and buildings can sell the biogas produced to help recoup costs.

Improving recycling in New York City is both fiscally and environmentally prudent. However, increasing the City's diversion rate will require creating incentives for New Yorkers to properly separate their waste and using cost-effective strategies to encourage organics recycling. Paired with improvements to collection productivity, these strategies could generate substantial savings that could partly be used to support recycling. Thank you again for the opportunity to testify. I am happy to discuss the details of any of these recommendations in greater detail.