

March 3, 2021

U. S. Environmental Protection Agency
ORCRMMeasurement@epa.gov

Terri L. Goldberg
Executive Director

Subject: Recycling Rate Measurement Methodology, EPA-HQ-OLEM-2020-0433

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Dear Sir or Madam:

The Northeast Waste Management Officials' Association (NEWMOA) appreciates the opportunity to comment on EPA's "Recycling Rate Measurement Methodology" as published in a January 7, 2021 memorandum on EPA's website at <https://beta.regulations.gov/document/EPA-HQ-OLEM-2020-0443-0068>. We applaud EPA for seeking stakeholder comments on this memorandum and appreciate your willingness to consider our suggestions. The comments outlined below represent the views of NEWMOA's members. We hope that our recommendations will help to improve and clarify EPA's approach to measuring recycling.

Several years ago, NEWMOA convened a regional Workgroup of state solid waste program staff who are responsible for implementing state mandates related to developing, collecting, and analyzing sustainable materials management (SMM) measures and data. This Workgroup has discussed EPA's memorandum on recycling rates measurement and helped to prepare these comments.

Comments on Implementation

State Program Involvement

We ask EPA to clarify the role of the various levels of government in the U.S. in implementing the data collection and analysis needed to implement a national system for measuring the country's solid waste recycling rate. Our questions include:

- What resources are available to EPA for this undertaking?
- Will EPA be able to support state agencies, if state programs are to be relied upon to provide data?
- If EPA will support state agencies, specifically what type of support will be provided (i.e., funding, software, training, and data collection assistance)?
- How did EPA arrive at a national recycling goal of 50 percent by 2030?
- What are the anticipated sources of data for EPA's evaluation?

State solid waste programs in the northeast are underfunded and short-staffed, given the scope of their authorities and responsibilities. The state resources for solid waste data collection and analysis are extremely limited and inadequate to meet current responsibilities. Incorporating additional duties would be a difficult task for many of these programs, particularly if EPA is unable to provide direct support.

Data Collection

If EPA will be seeking data from state programs through Re-TRAC, similar to the State Measurement Program, or another vehicle for gathering state data, we believe there is a need to reach agreement with state agencies on:

- The definitions of the recycling terminology and the measures
- How EPA plans to collect the data from the state programs
- What EPA plans to do with the data and the associated results

This coordination with state programs should occur prior to the development of any reporting system and with enough preparation time such that states can adjust or interpret their own data collection program appropriately. We ask that EPA provide training for the states programs on the Re-TRAC system and how agencies could collect and interpret data.

Overall Comments on the Metrics

Through its efforts to measure recycling, EPA has an opportunity to play a significant role in creating a more stable and useful baseline for states to gauge opportunities for waste diversion and measure the success of those programs. Definitions of recovery, recycling, diversion, and disposal vary, and a survey of how state programs define these actions would be useful in unifying measurement efforts.

From the memorandum, it is unclear whether EPA intends to measure the recovery rate of recyclable material or the amount of municipal solid waste (MSW) that is diverted from disposal. EPA's response to this would determine the scope of what metrics should be considered in a recycling rate and the information EPA would need from state programs and others.

The focus on a "recycling rate" and associated measurements requires an understanding of the whole of materials generated and the percentage of those materials recycled. Fundamental to establishing a recycling rate is defining what is included in these values (i.e., the numerator – recycled and denominator – generated). The memorandum does not include any description of the data the Agency plans to rely on for the generated materials metric. Deciding whether this is total materials supplied, total waste generation, total recyclable materials generated, total recyclables delivered to permitted processing facilities, or some other metric, will impact what should or should not be included in the recycling metrics.

The state solid waste programs in the northeast gather data from municipalities and regulated facilities, including landfills, waste-to-energy facilities, municipalities, material recovery facilities (MRFs), and some other processors. However, they do not collect a consistent set of solid waste data from regulated facilities, any data from unregulated facilities, and they also do not collect solid waste data from generators. As a result, they could not provide EPA with an accurate estimate of overall solid waste generation or necessarily comparable numbers state to state. A survey of how state programs define recovery, recycling, diversion, and disposal would be useful in unifying measurement efforts that help to inform and improve state and local actions.

An approach based on readily available data and qualitative measures could be more useful than a more expansive one, which could have numerous data gaps. Many state solid waste programs estimate the rate of diversion from disposal to establish a baseline to estimate the effectiveness of current or future diversion programs. Most of NEWMOA's members have either transitioned

from or are in the process of transitioning from using the traditional recycling rate measure that EPA has proposed. Instead, the state recycling programs in the region prefer to use a diversion measure that encompasses all of the top of the waste hierarchy strategies for solid waste, including source reduction, reuse, repair, organics diversion, and recycling. The measures that they have chosen as being the most trackable are per capita municipal solid waste (MSW) disposal (by weight) or tons of MSW disposed of. This enables programs to evaluate progress in reducing disposal through all of the sustainable materials management (SMM) approaches, not just recycling. Because all of the state agencies regulate disposal facilities (including landfills, incinerators, and waste-to-energy facilities) and mandate that they provide annual data on disposal, the data that agencies collect and analyze on disposal is more accurate and complete than the data that agencies collect on recycling.

Differentiation of recycling from source reduction, reuse, repair, energy recovery, and alternative recycling technologies is essential. The EPA memorandum includes many sources, materials, and processes however, recycling is, more strictly, a process of collection post-use, transportation, processing, remanufacturing, and returning to the supply stream. EPA's presented list of possible recycling activities reaches well past this definition. This raises the question of whether the EPA is requesting comment on a rate of collection of certain materials and the return of those materials to market post processing, or if it is using recycling as a catch-all term for any waste reduction or diversion from disposal strategy.

Comments on Categories/Lists

Sources of Recyclables

EPA's proposed list of sources of recyclable materials covers a wide range of generators. We recommend that the Agency focus on residential, commercial, and institutional sources of municipal solid waste and not industrial sources.

As noted above, state solid waste programs do not collect data directly from generators but rather from regulated/permitted waste management facilities. The available data cannot be differentiated by residential, commercial, and institutional sources. State programs generally do not collect solid waste data from industrial sources, whether non-process or process wastes.

The accuracy of a national recycling rate measure relies on consistency in identifying the source of the disposed materials as well as the source of the recycled materials. Residential, industrial, commercial, and institutional generators often manage both recyclables and solid waste outside of the regulated system (e.g., private contract, "back-haul", internal resources). These wastes are then managed completely outside of state and federal regulatory frameworks, as there is often no reporting mandate on these private sector actors. Any data collected is primarily given voluntarily (and is therefore inconsistent and incomplete). This variability and uncertainty are likely to introduce significant data variations that invalidate any policy or program designed to improve a calculated "recycling rate".

Covered Waste Materials

We believe that EPA should focus its recycling rate measurement largely on recycling of traditional municipal solid waste materials, including paper, cardboard, glass, metal, and plastic packaging. We recommend adding food and organics to this list. There is a significant need for

the development of specific definitions for waste categories, which would help promote data consistency.

State agencies in the northeast have been developing and implementing extended producer responsibility (EPR) programs for electronics/e-waste, mattresses, and paint. Under EPR programs, the producer responsibility organizations collect data on the recovery of their materials. But such programs are not yet widespread in the U.S., and more states would have to adopt them before there is sufficient U.S.-wide information to understand these materials' national recycling rates. State EPR proposals are emerging for batteries, carpet, solar panels, household hazardous waste (HHW), tires, and textiles, but until bills are enacted and more programs are implemented, data on recycling is inconsistent or unavailable.

Materials like appliances and automobiles are handled by scrap yards, which often fall outside of the solid waste system; similarly, HHW, once collected, are not managed as solid waste. We do not recommend combining traditional MSW with construction and demolition (C&D) debris, tires, and bulky waste into a single solid waste category for the purpose of measuring recycling. At the very least, the weight of asphalt, brick, and concrete (ABC) in C&D materials would overwhelm all other waste streams and dominate the recycling rate. Data on the generation and recycling of industrial waste, renewable energy equipment, and yard waste are not readily available or reliable at this time.

Scope of Recycling Activities

We urge EPA to develop a national definition of recycling that focuses on traditional mechanical recycling. This definition should include those practices that separate, clean and process, and create a final product with a market or end use. We also recommend that EPA include composting and anaerobic digestion (AD), since we believe these meet this definition of recycling and are growing operations and important strategies that states are employing to increase recycling.

The relatively recent emergence of chemical and other alternative recycling processes, such as pyrolysis, solvolysis, depolymerization, and gasification, are currently an insignificant part of the recycling system in the U.S. There are very few facilities using these technologies at scale. For these technologies to flourish, they must be matched with both feedstock providers and outlets for their finished products. We urge EPA to monitor these types of new processes. As they mature and begin managing a significant amount of waste materials for production of useful commodities, EPA should evaluate their inclusion in the definition of recycling for the purpose of calculating a national recycling rate.

We do not believe that the other activities on EPA's list in the memorandum are recycling. In particular, NEWMOA's members do not consider waste-to-energy, landfill cover, sewer/wastewater treatment, sewage sludge processing, animal feed, or land application as recycling.

Reuse, repair, refurbishment, remanufacturing, and donation are important rungs on the waste management hierarchy and worthy of greater attention by EPA and state programs, but they should not be classified as recycling. While state agencies issue beneficial use approvals or certifications, not all state agencies collect data from those generating the materials or using

them. In addition, many of the beneficial uses involve land application or landfill cover, which we do not define as recycling.

The U.S. still depends on exports for managing recyclables. If materials that are exported for recycling are not counted as recycled, we are concerned that it would appear that they are being disposed of. We urge EPA to include material that are exported for legitimate recycling in its recycling rate algorithm.

Other Considerations

Recycling rate calculations are one tool in service of a larger effort to increase diversion of recoverable materials, directing those materials to the correct processing facilities or markets, and measuring that activity to gauge the reduction of waste materials sent for disposal. We urge EPA to focus separately on tracking and measurement of the other “Rs” at the top of the waste management hierarchy – reduction, reuse, and repair – in addition to recycling. We believe these strategies are extremely important and valuable. Solid waste programs need a more holistic view of the fate of waste materials in the U.S.

Furthermore, we urge EPA to integrate measurement of the greenhouse gas (GHG) benefits of the waste diversion hierarchy activities in the U.S. Without a comprehensive approach to measuring the GHG impacts of waste reduction and beneficial recycling and diversion approaches, they remain undervalued as climate mitigation strategies.

In summary, we recommend that EPA begin its efforts to measure the national recycling rate using the most readily available, reliable data rather than a wide-ranging set of solid waste sources, materials, and activities. We believe that efforts would be best served if EPA estimated the national MSW recycling rate using a measured and less ambitious approach than is implied in its memorandum with consideration for what is feasible with existing resources. Documenting successful progress towards changing behaviors, instituting programs, and achieving decreases in GHG emissions requires metrics that are reproducible year to year and across state boundaries. We appreciate the difficultness of this task and look forward to continuing collaborative conversations with EPA on this issue.

NEWMOA is a non-profit, non-partisan interstate association that was established by the governors of the New England states as an official interstate regional organization, in accordance with Section 1005 of the federal Resource Conservation and Recovery Act (RCRA), to coordinate in interstate hazardous and solid waste activities. The organization was formally recognized by the U.S. EPA in 1986. NEWMOA membership is composed of the state environment agency programs that address pollution prevention, toxics use reduction, sustainability, materials management, hazardous waste, solid waste, emergency response, waste site cleanup, underground storage tanks, and related environmental challenges in Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. NEWMOA provides a strategic forum for effectively solving environmental problems through collaborative regional initiatives that advance pollution prevention and sustainability, promote safer alternatives to toxic materials in products, identify and assess emerging contaminants, facilitate adaptation to climate change, mitigate greenhouse gas sources, promote reuse and recycling of wastes and diversion of organics, support proper management of hazardous and

solid wastes, and facilitate clean-up of contaminant releases to the environment. For more information on NEWMOA, visit www.newmoa.org.

NEWMOA appreciates your consideration of the concerns and suggestions outlined in this letter. Terri Goldberg, NEWMOA's Executive Director, will be happy to discuss next steps. She can be reached by email (tgoldberg@newmoa.org) or by telephone (617-367-8558 x302).

Sincerely,

A handwritten signature in blue ink, appearing to read "Mike R. Hastry". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

Mike Hastry, NJ DEP, NEWMOA's 2021 Chair