



ERCC Best Practices for Measuring the Performance Of State Electronics Recycling Programs

Overview

In September 2010, the Electronics Recycling Coordination Clearinghouse (ERCC) held a workshop on harmonization of state electronics recycling programs and determined that the way in which states measure performances (“performance measures”) and data reporting were a high priority for a broad cross-section of stakeholders impacted by state electronics recycling laws. The ERCC has evaluated the various performance measures of mandated state recycling systems in order to establish valid measures for comparing various programs. The result is the recommended Best Practices for Measuring the Performance of State Electronics Recycling Programs. These Best Practices should be implemented over time in order to harmonize data sets and gain consistency for those entities required to report, providing a level playing field for relative evaluation of different program types and structures.

Principles for Performance Measures

Based on work from a workshop conducted by the National Center for Electronics Recycling and the Product Stewardship Institute (PSI) in 2009, the ERCC recommendations are following the key principles detailed below. As stated in the PSI’s 2009 “Battery Performance Metrics: Recommendations for Best Practice Measures¹,” measures should be should be

- *Relevant. Sound performance metrics measure attributes of performance that are relevant to a program’s goals. If policymakers have called for a battery collection and recycling initiative in order to ensure appropriate end-of-life management of batteries (e.g. preventing metals from contaminating the environment), performance metrics should measure the extent to which those programs capture and contain toxic metals. If, alternatively, policymakers have required a battery collection program to conserve product inputs (e.g. energy and other resources consumed in product manufacture), performance metrics should address resource savings from collection and recycling efforts. Of course, program goals may be multiple, may not be stated explicitly in legislation or elsewhere, and may change over time.*
- *High quality. Sound performance metrics are based on data that are credible and reliable. Credible data are collected in accordance with recognized practices and understandable instructions such that two organizations, charged with the same data-collection task, would come up with the same result. Reliable data are verified, meaning that a third party has made sure that data are complete and accurate.*

¹ http://www.call2recycle.org/doc_lib/Battery%20Performance%20Metrics.pdf

- *Easy to use. Performance assessment should not be a laborious exercise. Policymakers need performance metrics that help them quickly and easily determine whether their efforts are on track to meet goals. The costs associated with performance measurement should be proportionate to the costs of the collection and recycling effort overall.*
- *Transparent and accessible. Sound performance metrics are transparent. The assumptions those responsible use to generate them are prominently stated. Often those assumptions are developed through a process of public discussion and debate. Similarly, the sources of data used to develop performance metrics are clearly identified.*
- *Widely accepted. Sound performance metrics are widely accepted. They represent a consensus of the best thinking about how to measure performance.*
- *Adaptable. Performance metrics are not static. As experience in measuring performance grows and more data become available, performance metrics should evolve. While stability enables comparisons over time, adaptability is also important given that measuring the performance of product stewardship efforts is relatively new. We can expect metrics to change as policy makers focus on new aspects of performance (such as the release of greenhouse gases throughout product life cycles), new sources of data become available, new products come to market, and we learn more about consumer behavior and other factors that underlie assumptions.*

Recommended Performance Measures

Recommended performance measures fall into three basic categories: 1) Program Results; 2) Program Convenience; and 3) Economic, Environmental, and Social Benefits.

1. Program Results (all categories highlighted in yellow are recommended or “preferred” by ERCC)

- **Pounds Collected for Recycling** – net pounds (no packaging weight included) received by recyclers operating under the state program
 - Pounds by product category (optional)
 - Product Categories: TVs, desktop computers, laptop computers, computer monitors, printers, and other devices (peripherals, DVD players, VCRs, audio equipment, portable digital audio players), including designation of product categories as covered or non-covered by the state law, if applicable
 - Pounds by entity (optional)
 - Entities: Households, Small Business, Schools, Business, Government
 - Pounds by geographic area – i.e. county or rural/urban (optional)
- **Pounds Collected for Recycling Per Capita** – Per capita rates should be expressed to two decimal points using the most recent annual state population estimate from the US Census Bureau
- Number of units or pounds diverted for reuse (optional)
 - Number of units diverted for reuse by product category (optional)
- Pounds by Collector Type (optional)
 - Government-owned facility, for profit, retailer, or non-profit
 - Permanent site, collection event, curbside or mail-back program

2. Program Convenience and Awareness

- **Total number of permanent collection sites** (sites open regularly at least one or more times per month)
- **Total number of special collection events held annually and mailback programs**
- Percentage of population covered by collection options (optional) [to be used when methodology to determine geographic distribution measure of % population within a specified distance of collection sites is determined and available]
- Percentage of population aware of program and that feel collection options are convenient (optional) [need survey and methodology]
- Cost to consumers for collection and recycling, if applicable (optional)

3. Economic, Environmental, and Social Benefits

- **Total weight recycled as percentage of weight collected, including percentage sent to disposal and percentage sent for reuse** (if applicable)
- Total weight recycled by commodity type (optional)
- Greenhouse gas emissions avoided (optional)
- Percentage of total weight collected sent to eSteward or R2 certified recyclers (optional)
- Number of jobs created by program (optional)

Other Potential Performance Measures Considered

- Costs for Collection, Transportation and Recycling
 - *Reason for Not Including:* Most producer responsibility programs in the U.S. involve private transactions between businesses. Costs for individual manufacturers, therefore, are not reported. Cost per pound data obtainable for state or default group plans in California, Oregon, and Washington.
- Percentage Recycled Compared to Product Available
 - *Reason for Not Including:* No consistent methodology for measuring what is “available for recycling” currently exists.