

Federal Market Development and Recycling Support

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EPA's FY19 Sustainable Materials Management

Activities

- SMM Measurement & Database Management
- SMM in the Built Environment
- WasteWise
- LCA & SMM Policy
- Materials Collection, Processing, and Utilization Systems



EPA's 2015 Waste Management Facts and Figures

MSW Generation and Management	2014	2015
Million tons MSW generated	259.0	262.4
Per capita generation rate in pounds per person per day	4.45	4.48
Million tons recycled plus composted	89.6	91.2
Recycling plus composting rate	34.6%	34.7%
Million tons combusted with energy recovery	33.2	33.6
Million tons landfilled	136.2	137.7



Four Focus Areas

- Based on stakeholder discussions, EPA has identified four main areas of focus:
 - Education
 - Infrastructure
 - Markets
 - Better data



EPA Support for Market Development

- EPA Region 5 supports projects that build a foundation for markets for recovered materials
 - Cooperative agreement with Michigan Technological Univ.
 - Research and inventory 'Buy Recycled' public procurement policies
 - Provide guidance on end-of-life lithium battery management
 - Grants to the Recycling Partnership
 - Improving communication with residents
 - S.E. Wisconsin (EPA Region 4)
 - Minnesota (EPA Region 5, Environmental Education)
 - MRF-shed communication study to reduce contamination (completed 2017)
 - Illinois Contamination Taskforce (participant)



EPA Support for Market Development

- [Memorandum of Understanding](#) between:
 - ACC's Flexible Film Recycling Group's [WRAP](#) Campaign
 - Green Blue's Sustainable Packaging Coalition's [how2recycle](#) Campaign
- The parties agreed to:
 - 1) decrease disposal rates through source reduction, reuse, recycling and prevention;
 - 2) Reduce environmental impacts of plastics throughout the life cycle;
 - 3) Provide technical assistance to increase stakeholder capacity to implement sustainable materials management.



EPA Support for Market Development

- Safer Choice packaging requirements, www.epa.gov/saferchoice

Criteria	Example
Is sourced, manufactured, transported, and recycled using renewable energy	Packaging is delivered by hybrid fuel truck. Packaging plant purchases wind/solar/hydroelectric power.
Optimizes the use of renewable or recycled source materials	Packaging contains post consumer recycled content. Packaging is produced from bio-based resins.
Is manufactured using clean production technologies and best practices	Packaging contains regrind.
Is made from materials healthful in all probable end-of-life scenarios	Packaging is recyclable, for example, HDPE resin.
Is physically designed to optimize materials and energy	Packaging uses less resin than alternative, for example, by replacing pails with bag-in-box or by delivering product in tanker trucks instead of 265 gallon containers.
Is effectively recovered and used in biological and/or industrial closed-loop cycles	Packaging is collected by partner for reuse. Bulk containers are returned and refilled.



Federal Government Actions for Recycled Material Markets

- Comprehensive Procurement Guidelines
 - RCRA section 6002 (a), requires the purchase of EPA-designated products containing recovered materials by “procuring agencies” that spend more than \$10,000 a year on that item.
 - Procuring agencies are any level of government or government contractor that uses **appropriated federal funds**.
 - Find out more at:
 - <https://www.epa.gov/smm/comprehensive-procurement-guidelines-construction-products>
 - <https://www.epa.gov/sites/production/files/2016-02/documents/cpg-fs.pdf>
- General Services Administration's (GSA) Advantage highlights CPG items, www.gsaadvantage.gov
- GSA’s www.SFTTool.gov – Sustainable Facilities Tool is a tool that assists Federal Agencies and the general public to buy and build ‘green’.



EPA Education Tools

- iWarm helps people understand how recycling can save energy.
 - <https://developer.epa.gov/iwarm-widgets/>
- Based on the Warm model, but scaled for an individual user
 - www.epa.gov/warm
- Recycling Economic Information Report
 - <https://www.epa.gov/smm/recycling-economic-information-rei-report>

EPA save energy by recycling

Item	Value	Description
Aluminum Can	10	recycling 10 aluminum cans saves enough energy
Laptop Computer	51.9	to power 51.9 hours of a laptop

Slide the button or type in a number to change the number of recyclables.



EPA Education Tools

- Managing and Transforming Waste Streams – A Tool for Communities
 - Features a table of 100 measures communities can employ to reduce waste and recover materials.
 - Interactive functions let local planners can explore best practices and create a list of strategies tailored to their community's needs
 - <https://www.epa.gov/transforming-waste-tool/about-managing-and-transforming-waste-streams-tool>
- Energy Star Portfolio Manager for companies and facilities
 - Initially tracked energy and water, waste has been added
 - Adding Waste & Materials tracking helps users to benchmark their waste management practices
 - This provides insight on waste reduction and opportunities maybe
 - https://www.energystar.gov/buildings/owners_and_managers/existing_buildings/use_portfolio_manager/track_waste_materials



Recycling and China

The Connection

- U.S. processed over 130 million tons of recovered materials in 2017
- U.S. exported nearly 41 million tons (about 32%) of these materials worldwide to 155 countries
- About 13 million tons (31% of U.S. exports) went to China for recycling
- **China** is by far the **largest importer of recovered materials** in the world

Some Facts about U.S. Recycling

- 155,000 direct employment in recycling
- 378,000 more jobs throughout the economy indirectly supported by recycling
- \$17.9 billion - value of all U.S. materials exported (\$5.6 billion to China)

Source: ISRI – NRC Quarterly Market Report, March 29, 2018



U.S. Government Actions: Addressing China's National Sword

- Urging China to halt implementation and consider alternative, non-discriminatory approaches that will more effectively target illegal trade and harmful wastes
- In December 2017, the U.S. Trade Representative and Dept. of Commerce, in consultation with EPA, submitted formal comments to the World Trade Organization to address China's (then) proposed measures
- EPA is regularly communicating with affected parties
- Supporting G7 countries efforts to expand markets for recovered materials
- Supporting Organization for Economic Cooperation and Development's [report](#) on secondary plastics markets



Examples of State Market Development Activities in Region 5

- Indiana – Accepted grant proposals in 2018, from \$1,000 to \$500,000, with matching requirement. With a 50% matching (<https://www.in.gov/idem/recycle/2358.htm>)
- Ohio – Has a market development grant program, up to \$200,000 is available per grant, with a 100% matching requirement (<https://epa.ohio.gov/ocapp/recycling#1843210479-market-development-grant>)
- Minnesota – Provides technical assistance and information on materials



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