

Overview

The Better Buildings, Better Plants Waste Reduction Pilot was announced at the 2019 Better Buildings Summit and ran through mid-2021 under the direction of the Advanced Manufacturing Office (AMO) and the Building Technologies Office (BTO) at the U.S. Department of Energy (DOE). With more than [40 participants](#), the Pilot engaged partners with published content, webinars, peer exchange and working group opportunities, and access to proven solutions and national lab experts. Through feedback, partner conversations, and outreach at the Summit, it was determined that partners found value in the Pilot and would like to continue in a permanent waste reduction initiative.



Over the course of the Pilot, DOE and partners contributed content to a [new resources webpage](#) that highlights solutions for organizations looking to increase waste diversion, decrease source generation, recover energy, and create financial savings. Specifically, other efforts included:

Working Groups and Peer Exchanges

- ▶ Partners participated in working groups on the following topics:
 - Best practices on plastic waste reduction and recycling in the industrial sector, and exploration of software tools and other advances from DOE's Advanced Manufacturing Office R&D Consortia.
 - Outreach and engagement strategies, leading to the development of a [fact sheet](#) summarizing key best practices related to outreach and engagement in the commercial sector.
 - Data and measurement barriers and solutions, covering issues like data availability, accuracy, and analytics in the commercial sector.
- ▶ The Pilot hosted a [peer exchange](#) for healthcare and pharmaceutical companies to discuss shared challenges, opportunities for improvement, and successes in their respective sectors.



Waste Interests by Sector

Throughout the Pilot, the Waste Pilot team collected feedback from partners to gather their interests for working groups, webinars, and DOE research. Partners were most interested in the following:

Commercial Partner Interests

- ▶ Guidance documents and training
- ▶ Topics of interest
 - Data availability, accuracy, and analytics
 - Outreach and engagement
 - Emerging technology
 - Circular economy
 - Composting and food waste

Industrial Partner Interests

- ▶ Software platform(s) for waste streams scoping, waste assessments/analysis
- ▶ Knowledge-sharing activities/platform
- ▶ Guidance documents and training
- ▶ Topics of interest
 - Data availability, accuracy, and analytics
 - Emerging technology
 - Circular economy
 - Embodied energy/energy recovery
 - Sectoral waste streams and solutions to reuse/recycle/remanufacture

Waste Goal Setting and Data

Partners worked with DOE to set waste goals that aligned with their organization and submit data on an annual basis to track progress. Goal options varied by sector (see table).

Goal Setting

- ▶ Nearly all participants across industrial and commercial set goals with the Pilot.
- ▶ About half of partners set a goal of 50% diversion or more.

Data Submission

- ▶ In 2019, partners that submitted data reported 1.9 million tons diverted and 55K tons sent to energy recovery.
- ▶ In 2020, partners saw reductions in waste due to COVID impacts on manufacturing and reduced occupancy in buildings.
- ▶ Industrial partners have improved diversion rates through process optimization, materials reuse, and employee engagement. Non-industrial partners utilize tenant engagement, signage campaigns, and composting and recycling programs, but often have less control over waste brought on-site.

Waste Goal Options



Webinars

Over the course of the Pilot, partners attended and spoke on various topics related to waste:

	Food Waste, May 2020		Highlights from Year 1 of the Pilot, June 2020
	Plastics, August 2020		E-Waste, Nov. 2020
	Business Case, Feb. 2021		Best Practices from the Pilot, May 2021
	Lessons Learned, August 2021		

Solutions

Title	Sector
Taxonomy of Wastes	Multiple
Bristol-Myers Squibb: Application of Principles of Green Chemistry Leads to Significant Reductions in Material Waste	Industrial
Shorenstein Properties: Improved Waste Diversion with Training and Audits	CRE
An Efficiency Case in Point: Sprint Improves Waste Diversion	Retail, Food Service, Grocery
Sprint’s Systematic Approach to Waste Management	Retail, Food Service, Grocery
Top 5 Waste Outreach & Engagement Tips	Multiple
City of Beaverton: User Testing for Effective Waste Signage	Local Government
Montefiore Medical Center: Waste Management Program Reduces Overall Waste & Cost	Healthcare
Steelcase’s “Hack the Pack” Finds New Ways to Use Materials More Efficiently	Industrial
Healthcare and Pharmaceutical Partners Combine Forces to Tackle Shared Waste Challenges	Healthcare/ Industrial
Bendix Develops Zero Waste to Landfill Certification Process for Manufacturing Facilities	Industrial