



Pennsylvania
Resources
Council

Act 101 and Recycling in Pennsylvania: Past, Present, and Future



Partners

Pennsylvania Resources Council, a statewide nonprofit organization dedicated to the vision of a Pennsylvania where nothing is wasted, led the effort to produce this report. Penn Environment provided strategic advice.

PennEnvironment Research and Policy Center is a nonprofit organization dedicated to protecting Pennsylvania’s air, water, and open spaces. They work to protect the places we love, advance the environmental values we share, and win real results for our environment.

Eunomia, an independent consultancy dedicated to helping clients achieve better environmental and commercial outcomes, researched and wrote the initial draft of this report.

Grant funding was made possible through the **Foundation for Pennsylvania Watersheds**, and is intended to support recycling and waste management policy. FPW is a nonprofit, grant-making organization supporting water quality needs throughout Pennsylvania.



Acknowledgements

The authors wish to thank Winnie Branton, Michelle Brown, Brian Clark, John Dernbach, David Sharp, Howard Wein, and Jerry Zona for their review of this document, as well as their insights and suggestions. The authors bear responsibility for any factual errors. Policy recommendations are those of Pennsylvania Resources Council.

Executive Summary

Act 101 Purpose and Goals

Act 101 was signed into law in 1988, jump starting recycling, reuse, and waste reduction in Pennsylvania. The bipartisan legislation created the most extensive recycling program enacted by any state at that time. Its purpose was to:

- Establish and maintain a State and local program of planning, technical, and financial assistance for comprehensive municipal waste management;
- Encourage the development of waste reduction strategies/programming and recycling as a means of managing municipal waste, conserving resources, and supplying energy through planning, grants, and other incentives; and
- Protect the public health, safety, and welfare from the short- and long-term dangers of transportation, processing, treatment, storage, and disposal of municipal waste.

To satisfy these objectives, Act 101 established four main goals. The goals and the extent to which they have been achieved are summarized below.

Goal	Achievement of Goal
At least 25% of all municipal waste and source-separated recyclable materials generated in this Commonwealth on and after January 1, 1997, should be recycled.	Unsure. The Commonwealth does not release a yearly recycling rate as a benchmark.
The weight or volume of municipal waste generated per capita in this Commonwealth on January 1, 1997, should, to the greatest extent practicable, be less than the weight or volume of municipal waste generated per capita on the effective date of this act.	No. Waste generation has grown year after year. The per capita generation has increased from 0.79 tons per person in 1990, to 1.15 tons in 2018 a 45% increase.
Each person living or working in this Commonwealth shall be taught the economic, environmental and energy value of recycling and waste reduction and shall be encouraged through a variety of means to participate in such activities.	Partially. Education was strong after the Act was introduced but with budget cuts and changing priorities investment in education has reduced.

The Commonwealth should, to the greatest extent practicable, procure and use products and materials with recycled content and procure and use materials that are recyclable.

No. There is little evidence to demonstrate that this goal has been achieved.

Although not all the goals established in Act 101 have been achieved, the Act substantially improved recycling in Pennsylvania. As of the writing of this report, there are 1,141 curbside recycling programs and 814 drop off recycling programs in the state. In 2018 the 5.47 million tons of material recycled offset the equivalent of more than 9.2 million tons of carbon dioxide, the equivalent of removing more than 2 million vehicles off the road in one year.

Unintended Impacts of Act 101

However, the environmental landscape has changed dramatically over the years and there have been few modifications to the Commonwealth’s solid waste management system in response to this new landscape. Packaging waste streams have evolved due to an increasingly throwaway economy, a greater reliance on flexible plastics, and municipalities have moved towards single stream recycling collection. At the same time, in recent years many local and national government agencies have shifted focus from basic waste management to more ambitious goals through zero waste¹ targets and circular economy strategies. Additionally, the importance of effective waste reduction and diversion to reduce greenhouse gas (GHG) emissions continues to grow.

Over the past decade, several reviews of Act 101 found that provisions within the Act have created unintended impacts limiting Pennsylvania’s waste management and recycling system. Several are outlined here; the full report provides additional examples.

Act 101 unintentionally creates limited uniformity and coordination between municipalities. For example, municipalities mandated to provide recycling only need to collect three out of a list of eight materials. This makes it difficult to coordinate recycling messaging and education across the Commonwealth and may lead to valuable recyclable materials left out of collections.

The narrow types of funding opportunities within Act 101 pose another challenge. Act 101 currently includes only four grant categories, making it hard to fund innovative recycling activities to manage additional waste streams, such as organics² and textiles.

¹ The United States Conference of Mayors Zero Waste definition -- <https://www.usmayors.org/the-conference/resolutions/?category=b83aReso050&meeting=83rd%20Annual%20Meeting>

² When used in this report, organics or organic waste refers to material such as leaf waste, food waste and other materials that can be decomposed to make compost, not organic chemicals.

The State has made limited updates to Act 101 since 1988. Because the Act has not been regularly updated, it cannot resolve current and emerging priorities and challenges in waste and resource management, including aiming for large scale waste reduction goals and designing systems to support a circular economy.

Additional challenges hamper the Act as well, keeping the law from achieving its full potential in its 33rd year.

Landscape Analysis

This report reviews best practices in other jurisdictions to identify what measures can support the Commonwealth’s work towards zero waste and encourage a circular economy.

Policies outside of Pennsylvania as well as some started at the local level provide potential paths to improve Act 101. For example, in 2012, Vermont passed the Universal Recycling Law (Act 148) which introduced a landfill ban on various materials including paper, cardboard, aluminum, steel cans, glass bottles and jars, and plastic containers with resin codes #1 or #2 (PET and HDPE). Additionally, in the U.S., 33 states have adopted 119 producer responsibility laws, addressing 14 types of consumer products such as packaging, electronics, and paint. Several of these are outlined in our report.

In addition to policies and programs outside Pennsylvania, there are several within the Commonwealth that can be expanded or used as learning opportunities for future programming. In Philadelphia, starting October 1st, 2021, retail establishments are prohibited from providing single use plastic bags and paper bags which do not meet specific requirements. Also in 2021, Pittsburgh established a pilot program through executive order which promoted deconstruction of some blighted properties rather than removing them solely through demolition.

Recommendations

To improve and modernize Pennsylvania’s recycling system, this report puts forth a set of 15 policy recommendations. These include recommendations that can be implemented through the enforcement of existing Act 101 provisions, some that require new policy and legislation, and several more longer-term policy goals for the Commonwealth to build towards. The suite of options summarized below, if implemented, will strengthen Pennsylvania’s recycling programs and increase the rate of materials being recycled, help reduce waste, improve coordination and clarity, reduce greenhouse gas emissions, and support the creation of local jobs.

Act 101 provides a solid foundation for waste management and recycling in Pennsylvania; the first set of recommendations involves enforcing a set of existing provisions. Many of these recommendations can be completed through guidance documents or executive order.

Recommendations to improve and modernize Pennsylvania's recycling system

PROPOSED MEASURE

Enforce Existing Act 101 Provisions

1. Require additional recycling of Commonwealth agencies so they can lead by example
2. Enforce Commercial Recycling Requirements of Act 101
3. Recommit to the education component of Act 101

	IMPLEMENTATION METHOD				BENEFIT					
	Act 101 Amendment	New Legislation	Guidance Document or Directive	New Program	Increased Coordination	Improved Clarity	GHG Reduction	Increased Recycling	Better Financing	Job Creation
1. Require additional recycling of Commonwealth agencies so they can lead by example										
2. Enforce Commercial Recycling Requirements of Act 101										
3. Recommit to the education component of Act 101										

The second set of recommendations includes new policy and program options, some of which may require new legislation. These new policies and programs seek to resolve many of the unintended negative impacts of Act 101, to address antiquities in the law, and to create a recycling framework which can meet the current challenges in the consumer and recycling marketplaces.

Recommendations to improve and modernize Pennsylvania's recycling system

PROPOSED MEASURE Priority New Policy and Program Options	IMPLEMENTATION METHOD				BENEFIT					
	Act 101 Amendment	New Legislation	Guidance Document or Directive	New Program	Increased Coordination	Improved Clarity	GHG Reduction	Increased Recycling	Better Financing	Job Creation
4. Develop and publish success metrics on Pennsylvania's recycling program										
5. Streamline data reporting process for recycling collection to once per year										
6. Establish reporting requirements under material recovery facility to obtain both inbound and outbound materials										
7. Establish a standard set of materials to be collected by recycling programs to ensure uniformity of the materials collected										
8. Increase incentives for intergovernmental agreements to promote coordination between municipalities										
9. Create additional incentives for organic waste programs as organics makes up the largest share of the waste stream										
10. Increase grant categories to allow for more innovative programming										
11. Promote "reduce" and "reuse" for materials such as single use plastics and construction & demolition waste										
12. Enact a landfill ban for select materials or require disposal facilities to pre sort key materials										

The final set of recommendations provides a path towards new waste reduction policies.

Recommendations to improve and modernize Pennsylvania's recycling system

PROPOSED MEASURE

Future Vision for New Legislation

PROPOSED MEASURE	IMPLEMENTATION METHOD				BENEFIT					
	Act 101 Amendment	New Legislation	Guidance Document or Directive	New Program	Increased Coordination	Improved Clarity	GHG Reduction	Increased Recycling	Better Financing	Job Creation
13. Develop right to repair regulation so residents have access to the needed information, tools, and third party services for repairs										
14. Develop a deposit return system for beverages based on best in class principles										
15. Develop extended producer responsibility legislation for packaging and other materials										