

Electronics recycling rulemaking & legislation update

Wisconsin Council on Recycling

June 1, 2021



Landfill and incinerator bans

- ▶ Televisions
- ▶ Computers (desktop laptop, netbook, tablet)
- ▶ Computer monitors
- ▶ Computer accessories (mice, keyboards, external hard drives, etc.)
- ▶ Desktop printers & fax machines
- ▶ E-readers
- ▶ DVD players, VCRs and DVRs
- ▶ Cellphones

Which Electronics Are Banned From Wisconsin Landfills?



Wisconsin's electronics recycling law bans most electronics from landfills and incinerators. Electronics contain valuable materials and must be reused or recycled. To find a collection site near you, visit dnr.wi.gov and search "ecycle."



- ❌ Computers: desktop, laptop, netbook, notebook
- ❌ TVs and computer monitors
- ❌ Cell phones, tablets and e-readers
- ❌ Fax machines and desktop printers, including printers combined with fax machines, scanners and copiers
- ❌ Computer accessories, including keyboards, mice, hard drives, scanners, speakers, flash drives and other devices
- ❌ DVD players, VCRs, DVRs and other video players



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The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services and facilities. Under an Affirmative Action Plan, DNR will not discriminate against any qualified applicant because of race, sex, religion, national origin, or age. For more information, contact the Bureau of Waste and Materials Management at (608) 266-2111.

8108-WA-1-07-2015



dnr.wi.gov "ecycle"

E-Cycle Wisconsin

- ▶ Manufacturers of TVs, computers, monitors and printers must register and meet recycling targets based on weight of covered electronics sold in WI
- ▶ Collectors and recyclers can choose to participate; must meet program requirements
- ▶ Only weight from registered collectors and recyclers eligible for manufacturer credit

E-Cycle Wisconsin process



Manufacturer's role

Manufacturers sell electronics through retailers, distributors and/or directly. Some of these products are sold into Wisconsin, which has a law covering electronics manufacturers.

The law assigns manufacturers annual "recycling targets" based on the weight of covered products the manufacturer sells in Wisconsin.

Manufacturers make agreements with registered recyclers or with brokers that work with registered recyclers to pay a certain number of cents per pound to meet recycling targets.

Manufacturers fulfill their contracts with recyclers, keeping costs lower for the public.

Celebrating 10 years



Collected 325 million pounds of electronics from households and schools for recycling since 2010



Reduced CO2 emissions by about 123,000 metric tons—the equivalent of using 13.8 million fewer gallons of gasoline



Conserved an estimated 47 million pounds of steel, enough to make 20,000 cars



Conserved about 16 million pounds of copper and 8 million pounds of aluminum

Requirements for registered collectors

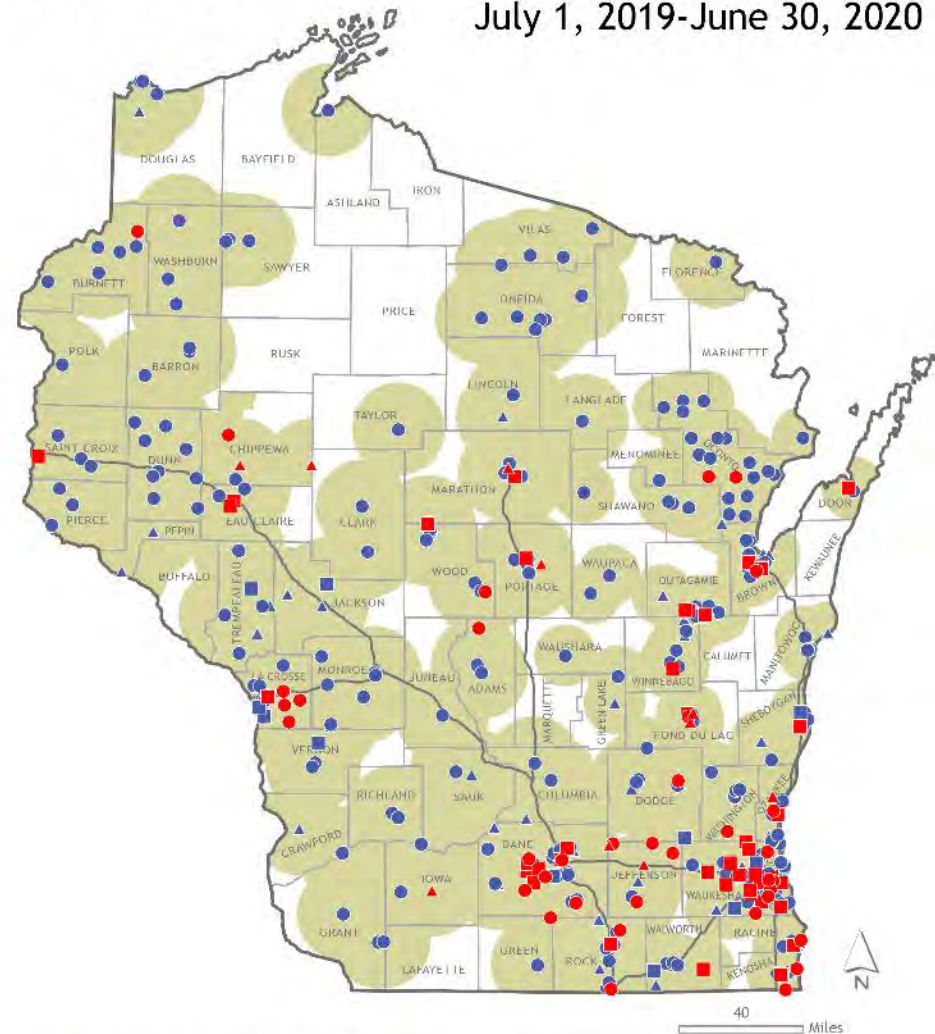


- ▶ Must register with E-Cycle Wisconsin IF working with a registered recycler or another registered collector
 - ▶ Annual report/re-registration submitted to DNR (no fee)
 - ▶ Sites/events where electronics collected from the public are reported and displayed on DNR's website (can include restrictions, like community residents only)
- ▶ Solid and hazardous waste requirements and BMPs apply to everyone
- ▶ No owner financial responsibility set aside, even if dismantling

Program year 11 collection sites

- ▶ Collection sites registered during program year 11, with 10-mile or 15-mile radius circles showing average distance willing to drive to recycle electronics
- ▶ Shaded circles were eliminated or cropped in cases where sites are known to be restricted to municipal/county residents

Registered E-Cycle Wisconsin Collection Sites
July 1, 2019-June 30, 2020



15-mile coverage area: Northern, South Central, West Central*
 10-mile coverage area: Northeast, Southeast*

Permanent collection sites
 One-day collection sites
 Temporary collection sites

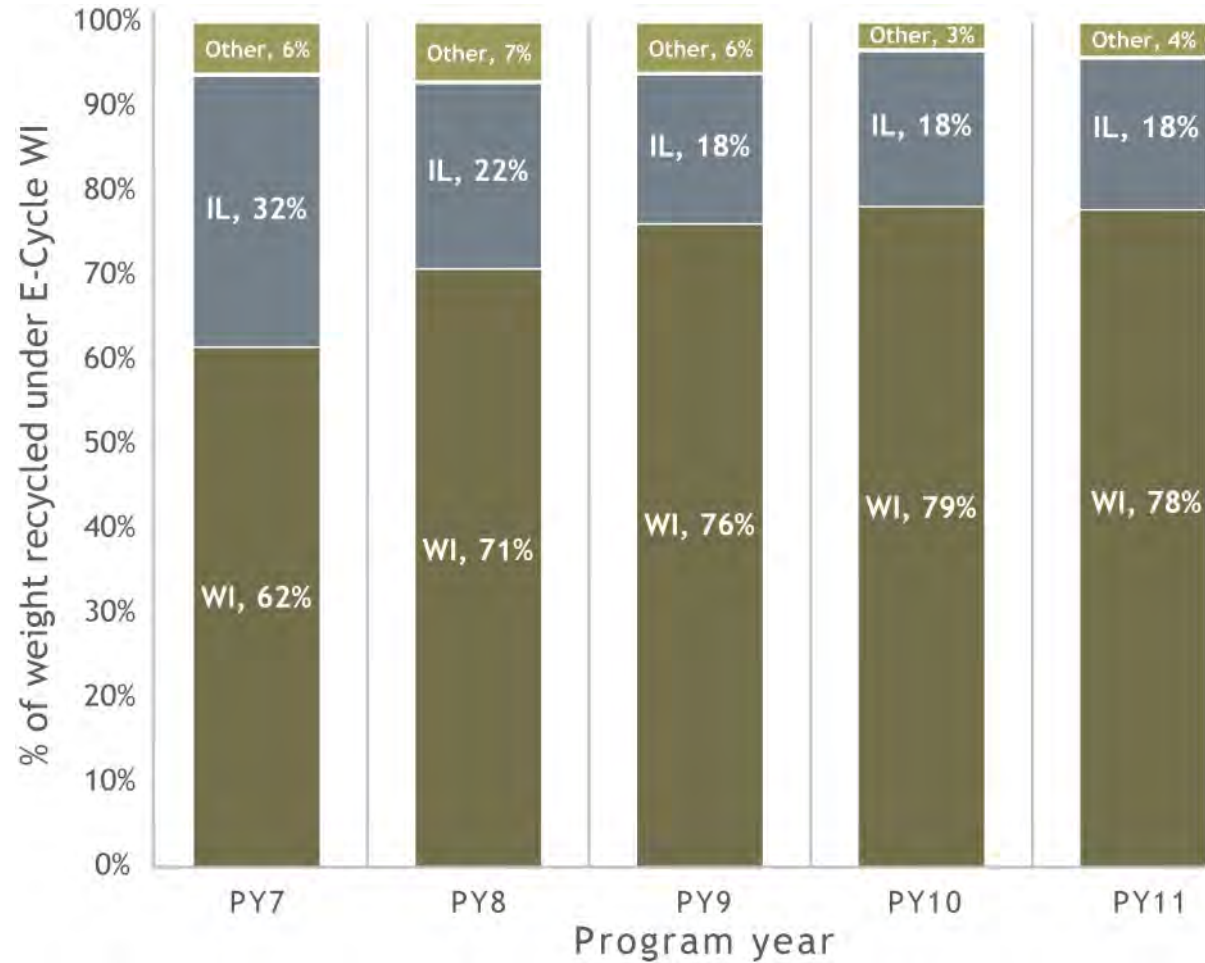
Collection sites available only to employees and customers of a company or residents of a village, town, city or county.

*Based on the 2018 WDNR Household Survey question, "How far would you be willing to travel to recycle electronics?"

Requirements for registered recyclers

- ▶ Must register with E-Cycle Wisconsin IF working on behalf of a registered manufacturer
- ▶ Annual report/re-registration submitted to DNR (no fee)
- ▶ Pollution liability insurance of at least \$1 million
- ▶ Maintain proof of financial responsibility for closure and cleanup and a written contingency plan for environmental releases
- ▶ Comply with all federal, state and local requirements concerning storage, transportation, processing and exporting of eligible electronics and materials derived from eligible electronics
- ▶ Comply with federal requirements for occupational and environmental health and safety training for employees
- ▶ May not use prison labor to recycle electronics under E-Cycle Wisconsin
- ▶ Keep detailed records, including sources and downstream vendors for eligible electronics

Pounds recycled, by recycler location



Requirements for manufacturers

Manufacturers of TVs, computers, monitors and printers required to register with the DNR to sell devices to Wisconsin households and schools

- ▶ Submit an annual registration form to the DNR
- ▶ Pay an annual registration fee, if applicable
- ▶ Report annually on sales of covered electronic devices to Wisconsin households and covered schools
- ▶ Ensure all covered electronic devices sold under their brand in WI have a manufacturer's label that is permanently affixed and prominent
- ▶ If the manufacturer has a recycling target for a given program year, work with registered collectors and recyclers to meet this recycling target
- ▶ Manufacturers negotiate private contracts with recyclers to purchase credits for the number of pounds needed to meet the target
- ▶ If a manufacturer does not meet its recycling target, it must pay a shortfall fee to the DNR
- ▶ A manufacturer does not need to limit its recycling to its own brand or device types

Most electronics **MAY NOT**
be put in the trash.
E-Cycle Wisconsin helps
you find a place to recycle
your old electronics.

Google "E-Cycle
Wisconsin" for details.



Requirements for retailers

- ▶ May only sell registered brands covered electronics to Wisconsin households and covered schools
- ▶ Customer education requirements
 - ▶ Inform customers about Wisconsin's landfill and incineration bans on electronics
 - ▶ Describe how and where customers may recycle electronics

Current regulation outside of E-Cycle Wisconsin

E-Cycle WI does not cover:

- ▶ Non-eligible devices
- ▶ Devices from businesses, some private K-12 schools, higher education, government and institutions
- ▶ Collection and recycling activities not done on behalf of manufacturers

Limited DNR oversight

- ▶ Compliance with solid waste disposal requirements where salvageable material exemptions don't apply
- ▶ Hazardous waste requirements for management of cathode ray tubes and circuit boards
- ▶ Universal waste requirements for batteries, lamps and mercury equipment removed from electronics
- ▶ Solid waste processing approvals for a few advanced processing operations

Problems to address

- ▶ More enforcement cases
- ▶ Expensive “backyard scrapping” cases
- ▶ Regulatory uncertainty and gaps for legitimate recyclers that have problems
- ▶ Uncertainty for generators—who is a responsible recycler?
- ▶ Misapplied scrap metal exemption given current electronics makeup
- ▶ Need for more consistency with other solid waste and recycling processors



Rulemaking goals

[Full scope statement](#)

Protect human health and the environment by providing more consistent oversight of electronics recycling operations in Wisconsin.

Ensure the electronics recycling program created by s. 287.17, Wis. Stats., continues to function well, including maintaining streamlined registration and reporting practices and preserving a level playing field among program participants.

Rules affected

Section	Changes
NR 500.03	New electronics recycling definitions; amended “salvageable materials” definition
NR 502.05	Include electronics in storage license exemption for facilities serving apartments, commercial and business establishments, and industries
NR 502.06	Electronic devices no longer meet transportation license exemption for “salvageable materials”; new exemption from C&T license if certain conditions are followed; exemption for mail-back recycling programs
NR 502.07	Ensure electronics drop-off and transfer facilities are included in exemptions from licensing; still need to meet basic requirements
NR 502.08	Clarify the electronics recyclers do not qualify for scrap metal processing license exemption, exempt very small electronics recyclers and collectors that do limited hand sorting from processing licenses requirements, require electronics recycling facilities to obtain solid waste processing license
NR 520	Ensure existing OFR requirements cover electronics recycling facilities
NR 530	New chapter implementing E-Cycle Wisconsin



Proposed definitions

- ▶ “Electronics recycling” means processing electronic devices for use in manufacturing processes or for recovery of usable materials, and includes processing electronic devices or components derived from electronic devices by disassembling, baling, crushing, grinding, and shredding. “Electronics recycling” does not include any of the following:
 - ▶ Destruction by incineration or other processes.
 - ▶ Land disposal of recyclable materials.
 - ▶ Reuse, repair, or any other process through which electronic devices are returned for use in their original form.
 - ▶ Removal of an electronic device from another device, such as from a major appliance or motor vehicle.
 - ▶ Hand disassembly of electronic devices in an educational setting for educational purposes.
 - ▶ Hand disassembly of a waste electronic device generated by a household on the property where it is generated.

Activities/facilities that would be exempt from processing license requirement



Reuse, repair, or other process through which electronic devices returned for use in their original form



Removal of an electronic device from another device, such as from a major appliance or motor vehicle



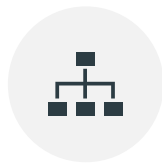
Hand disassembly in an educational setting for educational purposes



Hand disassembly of a household's own electronic devices



Electronics recycling facilities that recycle fewer than 25 devices a year



Collection sites/other facilities that only hand sort and package electronic devices for shipping to electronics recyclers without engaging in additional electronics recycling activities.

Facilities that would need a solid waste processing license

- ▶ Registered E-Cycle Wisconsin recyclers
- ▶ Registered E-Cycle Wisconsin collectors that disassemble some electronics
- ▶ Other facilities that disassemble, bale, crush, grind or shred electronic devices or components



New ch. NR 530:
E-Cycle Wisconsin
implementation

E-CYCLE
WISCONSIN



Summary of rule

- ▶ Most language reflects existing practices and guidance, clarifying or providing additional detail for statutory language governing registration, reporting, and DNR's administration of the program
- ▶ Definition clarifications would add smartphones and video game systems as covered devices
 - ▶ Increases overall manufacturer recycling target
 - ▶ Adds smartphones as eligible devices
- ▶ Clarifies and strengthens customer education requirements for electronics retailers

Requirements for registered recyclers

- ▶ On annual registration, list all facilities where they process or store eligible electronics (currently, only required to list facilities where they recycle eligible electronics) and maintain owner financial responsibility for any storage facilities, in addition to current requirement for recycling facilities
- ▶ In-state registered recyclers subject to the solid waste processing license requirement and must follow OFR requirements in ch. NR 520
- ▶ To ensure a level playing field with in-state recyclers, more specific requirements for out-of-state registered recyclers' OFR, including naming independent 3rd party as beneficiary or obligee, estimating costs based on independent 3rd party performing the work, and notifying DNR of OFR changes or cancelation in a timely manner
- ▶ Use and keep records of bills of lading for electronics loads



Next steps

- ▶ Accepting comments on draft rule until July 7
- ▶ Public hearing on rule language June 28
- ▶ Before NRB for adoption fall 2021
- ▶ Follow at [DNR solid waste rules webpage](#)

Rulemaking timeline (*estimated*)



Potential legislative changes: AB 254/SB 248

Change program year to calendar year: 18-month transition year starting 7/1/22

Reduce/eliminate fees for small manufacturers

Authorizes min-grant program to develop infrastructure in underserved areas

Expand definition of schools to include all K-12

Slight tweak to desktop printer definition

Requires manufacturers to report by rural/urban pounds



E-Cycle Wisconsin 2020 report

Wisconsin DNR annual report to the Legislature and
governor under s. 287.17(10), Wis. Stats.

November 2020

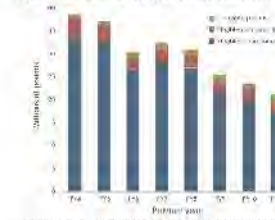


Table of contents	
Executive summary	1
Introduction	2
Program participation	4
Collection & recycling totals	5
Financing a local clearing fund	6
Electronics recycling outside E-Cycle WI	11
Disposal ban outreach and compliance	13
Program challenges	13
Recommendations	17



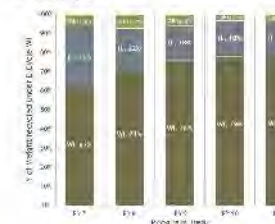
E-Cycle Wisconsin 2020 report summary

Figure 1: Pounds collected by registered collectors



Wisconsin DNR presented two best practices for materials for incorporation into a new recycling facility that includes an electronics recycling line for its operations register.

Figure 2: Percent of pounds received by registered recyclers, by state



Reports and other info at dnr.wisconsin.gov/topic/e-cycle

Program highlights

- Wisconsin residents and schools have recycled nearly 2.5 million pounds of electronic waste since the program began in 2014.
- The program has exceeded the Wisconsin Recycling Act's (WRA) goal of recycling 25% of total e-waste collected in the state.
- Wisconsin's e-waste recycling program has been recognized as a national leader in the industry.
- The program has a 100% diversion rate for the electronics collected.
- The program has a 100% compliance rate for the disposal ban.
- The program has a 100% participation rate for the recycling fund.
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Full report available online

Contacts



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