

# Waste prevention project example

## Reusable beer bottle system for breweries

Bayern Brewing in Missoula, Montana has found a way to resurrect a pre-1930's reusable bottle filling system to keep glass bottles out of the waste stream.



Bayern purchased a German industrial bottle-washing machine and launched their bottle reuse program “Eco League”. As a part of this program, they formed a cooperative with six of the state’s largest brewers who use glass bottles compatible with the washing system to collect bottles for washing.

They developed a sturdy waxed cardboard 24 pack case called an “Eco Pack” for customers to collect empty 12oz craft beer bottles. Consumers pay a \$3.00 deposit for the “Eco Pack” and fill the box with the qualifying bottles (12 ounces, no embossing, no sticker label, and no twist-off top). Once filled and dropped at a participating brewery, Bayern

returns \$0.05 per bottle and \$0.10 per six-pack cardboard carrier and provides the consumer with a new Eco Pack box.

When a brewery has a full load of Eco Packs, a recycling company picks them up. As a result, the brewers minimize the cost of purchasing new bottles and save bottles from ending up in the waste stream. According to a study published by Inform, Inc., a New York City-based environmental research firm, 10 trips with a refillable 1-liter glass bottle generates less pollution than a one-way bottle used once. Even the bottle washing process requires 47 to 82 percent less water than is needed to manufacture new one-way bottles of the same size.

Implementing this process can be major change for your operation but has the potential to significantly decrease costs and waste associated with one-way bottling. It can also set you apart from others because it shows innovation and commitment to the environment.

## Setting this up at your business

Implementing a reusable bottle wash and refill system will involve a few steps and possible coordination with other breweries to make the process economically viable. To start a refillable bottle system, breweries must:

1. Gauge interest from consumers and decide the scale of the operation;
2. Establish partnership(s) with other local breweries to expand infrastructure (the [MN Craft Brewers Guild](#) may be a great place to start);
3. Devise a collection and deposit system (i.e., consumers pay a price for bottles upfront, then receive a portion or all of the deposit back when the bottles are returned);
4. Purchase a bottle washer;
5. Train staff to utilize the bottle washing equipment;
6. Promote the program through established communication channels.

## Costs to consider

- Large operation bottle washer:
  - [Bottle washer for hygienically clean bottles](#) (150,000 bottles/hour)
  - [Bottle washer for hygienically clean bottles](#) (170,000 bottles/hour)
- Small operation bottle washer:
  - [Bottle washers](#) (450 bottles/hour- 600 bottles/hour)
  - [Bottle washers](#) (500 bph – 76,000 bph)
- Compatible reusable bottles
- Durable deposit boxes, like waxed cardboard packs or reusable plastic beverage crates

## Examples of similar projects in the news

- How Craft Beer Brewers Brought Bottle Recycling to Montana: [yesmagazine.org/environment/2015/08/28/montana-glass-bottle-recycling-craft-brewers](http://yesmagazine.org/environment/2015/08/28/montana-glass-bottle-recycling-craft-brewers)
- Craft Bottle Reuse: Bayern Brewing: [consciouscontainer.com/blog/craft-bottle-reuse-bayern-brewing](http://consciouscontainer.com/blog/craft-bottle-reuse-bayern-brewing)
- Jurgen and Knoller & Bayern Brewing Inc. on Vimeo: [vimeo.com/114748781](http://vimeo.com/114748781)
- Refillable Bottles & Sustainability at Double Mountain Brewery: [doublemountainbrewery.com/refillables](http://doublemountainbrewery.com/refillables)

## Waste prevention grants available

Hennepin County has a grant program to fund projects that prevent waste in the business sector. Areas of focus include replacing disposables with reusables, food waste prevention and innovative projects around research and development (to prevent waste). Learn more and apply at: [hennepin.us/businesswasteprevention](http://hennepin.us/businesswasteprevention)

## Contact

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