Upstream

Reusables Save Water and Energy Use

Highlights

- By replacing one disposable cup a day for one year with a reusable mug, 281 gallons of water can be saved.
- The use of efficient dishwashing equipment has the potential to reduce overall energy usage by 45% for a reusable system.
- Even when using older dishwashers, reusables use less energy than disposables

On a planet of 7 billion people and growing, products that are designed to be used for just a few minutes before they become waste is not sustainable. We are never going to be able to recycle or compost our way to a sustainable future. The throw-away economy treats both people and the planet as disposable.

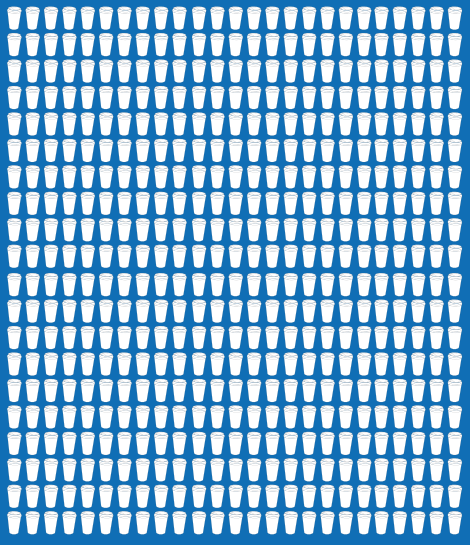
The throw-away economy uses 35 billion gallons of water annually. Which is enough to fill almost 53,000 Olympic size swimming pools.[1]

Reusables produce a smaller water and energy consumption footprint than their disposable counterparts due to all of the upstream production impacts that disposables create.

Reusables always hit a break-even point where they outperform the disposables, and the benefits to the environment accrue with each additional use past that point. The break-even points range from 2-122 times – with materials like steel, glass and ceramics being used thousands of times.

By replacing one disposable cup a day for one year with a reusable mug, 281 gallons of water can be saved.[2]

Using 500 paper cups consumes nearly 370 gallons water



Using and washing one ceramic cup 500 times consumes only 53 gallons of water.

The use of efficient dishwashing equipment has the potential to reduce overall energy usage by 45% for a reusable system.[3]

Even when using older dishwashers, reusables use less energy than disposables. For example, systems using disposable items with reusable carrying trays require 20 to 30% more energy for the same number of meals compared to the use of reusables when using older dishwashers.[4]

Dishwashing and Labor Requirements to Transition to Reuse

The city of Alameda, California worked with Clean Water Fund's *ReThink Disposable* program to convert 80 of their restaurants to reusable foodware. Most businesses made the switch without adding dishwashing equipment or staff. Only three of these businesses needed to expand their dishwashing capacity. They rented dishwashers and added additional staff. **Using reusable products saved Alameda businesses over $130,000 per year and reduced annual waste by 64,000 lbs.**

Hang Ten Boiler

Used Existing Dishwashing Capacity, Added Labor

The Hang Ten Boiler, a Hawaiian seafood restaurant in Alameda, CA, converted their serviceware to reusable products for their 50 seats of on-site dining. There was a one-time cost of $2,000 to buy the reusable plates, bowls, cups, and utensils and an average $12,000 to wash and replace broken or lost serviceware. They use their mechanized dishwasher and hired a part-time dishwasher who works 20 hours a week. Despite these costs, the Hang Ten Boiler nets an annual **$4,000** in savings from reduced costs of waste management and purchasing of single-use serviceware.[5]

Crispian Bakery

Added Dishwashing Capacity, No Labor Added

Crispian Bakery serves coffee and pastry for up to ten on-site diners. The cafe switched to using reusable serviceware for their on-site customers and instituted a discount for those who brought their own mugs for takeout. They now rent a dishwasher for $75 a month, after an installation cost of $500. Their water bill only increased by an average $30 a month. By switching to reusable plates, cups, and silverware, the Crispian Bakery saves a net **$1,700** annually.

University of San Francisco's Market Cafe

Existing Dishwashing Capacity, No Labor Added

This university dining hall serves three meals a day with a daily average of 5,000 transactions. Before switching to reusable products, they spent over $340,000 annually on disposable foodware. There was an initial cost of $5,000 to buy the necessary products, and an annual cost of $27,000 in upkeep. They already had dishwashing capabilities, and the cost of upkeep covers additional washing supplies and replacing foodware when necessary. The Market Cafe achieved a net annual savings of over **$150,000** by using reusable products.[6]

Endnotes

1 "Case Studies, Download Resources." Resources | ReThink Disposable

2 id.

3 Life Cycle Environmental and Cost Analysis of Disposable and Reusable Ware in School Cafeteria. Prepared for by School Nutrition Foundation, by Franklin Associate. Published November 2009. Page 9, para. 2. Accessed March 31, 2022.

4 id.

5 "Case Studies, Download Resources." Resources | ReThink Disposable.

6 id.