

Reuse Programs for Climate Pollution Reduction Grants

Reuse Belongs in Priority Climate Action Plans (PCAPs) and Implementation Grants

Reuse is a transformative climate solution. Life-cycle assessments (LCAs), academic studies, startup programs, pilots, and ongoing reuse operations have repeatedly shown that, even when including washing and logistics, reusables can result in **2 to 10 times less lifecycle GHG emissions than disposable alternatives**.¹

Reuse Has Many Co-Benefits, including those for Vulnerable Communities

- **Reuse systems drastically decrease waste and pollution, especially from plastic**, which has compounding climate impacts that are not reflected in current LCAs. Disposable packaging and foodware are among the [most littered](#) items and release GHGs as they [degrade](#). Plastic pollution in the ocean [damages marine ecosystems](#) and [affects carbon flux](#) to the deep sea.
- **The avoided manufacture, transportation, use, and disposal of single-use products is associated with reduced health impacts** from exposure to toxic chemicals and other co-pollutants. This has particular significance for vulnerable communities, which tend to be most affected by the health consequences of manufacturing, disposal, pollution, and climate change.
- **Reuse systems have economic benefits**, from the avoided costs and productivity losses associated with health impacts to economic savings for local governments and taxpayers from reduced waste and litter management. Reuse also expands local economic opportunity, creating an estimated 200 to 330 jobs per 10,000 metric tons of single-use waste avoided.²

Reuse is Aligned with the Objectives of the CPRG Program & Implementation Grants

- **Ambitious measure that will achieve significant cumulative GHG reductions** by 2030 and beyond.
- **Innovative, replicable initiative with a transformative impact** that can be scaled up within jurisdictions and transferred to other jurisdictions.
- **Community engagement** is a key element of program design and implementation.
- **Economic benefits to low-income and disadvantaged communities** include high-quality jobs in washing facilities and logistics.
- **Decreased reliance on global disposables supply chain** results in increased stability of foodware costs, which is particularly important to small business owners.
- **Opportunity to complement other funding sources to maximize benefits**, including EPA's Solid Waste Infrastructure for Recycling (SWIFR), Pollution Prevention (P2), and Environmental and Climate Justice Community Change grants.

¹ [Hitt, 2023](#); [Gordon, 2023](#); [Lelong, 2023](#); [Reloop & Zero Waste Europe, 2020](#)

² [Upstream, 2021](#); Perpetual analysis

- **Cost-effective GHG reductions** as reusable foodware and packaging programs are estimated to deliver CO₂e reductions at a cost of \$1,000 to \$2,000 per metric ton on a five-year time horizon when implemented at sufficient scale, which is on par with a PV system subsidy policy.³ This cost falls to less than \$800 per metric ton over a ten-year time frame.

Reuse systems deliver cost-effective emissions and pollution reductions along with a range of other benefits to local communities and society as a whole, **making them an excellent fit for CPRG funds.**

Reusable foodware and packaging efforts to date have successfully validated the essential elements for economic and environmental viability. There are examples of refillable beverage container systems operating at scale, hygiene and safety measures have been successful, and reuse services are being [further codified](#) in the next supplement to the [2022 FDA Food Code](#).

A key insight from these efforts is the importance of scale. Broad adoption of reuse requires that receiving and returning reusable items be convenient for users and that replacing disposable items with reusables not impose an economic or operational burden on businesses.

CPRG funds would provide the support to achieve this necessary scale and ease of use, unlocking the environmental and economic benefits of reuse. Government funds are essential in establishing effective and beneficial reuse systems, as has historically been done for waste management and recycling systems.

Establishing a Reuse Program at City Scale

Cities are an ideal context to create complete reusable foodware ecosystems. Perpetual has been working with four smaller US cities to establish reusable foodware and packaging programs that will be launching starting fall 2024. The full process, tools, and materials that Perpetual is using to establish these systems are being made publicly available, along with capacity building trainings..

Reusable Cup System Startup Budget Sample - Summary (detail available [here](#))

This Reusable Cup System budget is offered as a template. Systems that accommodate clamshells, packaging, and bottles are available as well.

Category	Amount	Description
Project Management for System Design & Implementation	\$500,000	2 full-time staff for 18 months, plus funds to cover expenses for the community participatory design process
Capital expenses, Supplies, and Startup Costs	\$4,821,800	Washing facility retrofit and equipment, transport vehicles, collection bins, tech startup costs and reusable cups
Operational Subsidy for Years 1-3	\$1,320,000	Funding to cover the gap in unit price and unit cost while the system gets to full adoption over three years
Total	\$6,641,800	

Perpetual is available to assist interested entities with incorporating reuse into PCAPs and writing implementation grants. Please contact Rich Grousset at rich@perpetualuse.org.

³ [Gillingham and Stock, 2018](#)