

Small Business Sustainability

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SYSTEM

Illinois Sustainable Technology Center (ISTC)

Net Zero Center for Excellence

Center for Economic Impacts and Societal Benefits (CEISB)

Emerging Contaminants

It is the mission of CEISB to assist businesses, governmental organizations, and citizens in improving environmental performance and economy.

Zero Waste

Materials management, waste reduction/diversion

Technology Acceleration Program

Pollution prevention and energy efficiency

Environmental and Societal Systems Research

Social science research & community engagement

Knowledge Services & Collaboration

Support ISTC scientists throughout the research/project lifecycle





EnergySense

Resilience Center

Our mission is to empower organizations with practical solutions for climate, energy, and sustainability.



Energy code training



Energy efficiency services



Building energy education



Public water infrastructure energy assessments



Green business services



Climate action planning



Workforce development



Solar feasibility

The Illinois Green Business Program



- Founded in 2008 by the Illinois Green Business Association (IGBA), now a partnership between EnergySense and IGBA.
- **Goal:** provide pathways that connect businesses to sustainability best practices that **help businesses reduce costs, increase operational efficiency, and lower environmental impact.**
- **Services provided:**
 - On-demand support and education
 - Technical assessments
 - Green Business Benchmark
 - Green Business Certification

Why Sustainability Matters Now for Food Businesses

It's hard for food businesses to fully embrace and act on sustainability opportunities...

- Costs of business increasing
- Constantly managing turnover
- Limited time - pivoting to meet today and tomorrow's needs
- Operate on tight profit margins – not a lot of extra capital for investments

... but food businesses are nimble, and they can lead the sustainability movement!

- Provide expert guidance to prioritize meaningful opportunities to reduce costs, increase efficiencies
- Connections to practical tools and incentives
- Efficiency with resources now = long term viability and community impact!

Zero Waste Benefits

Environmental

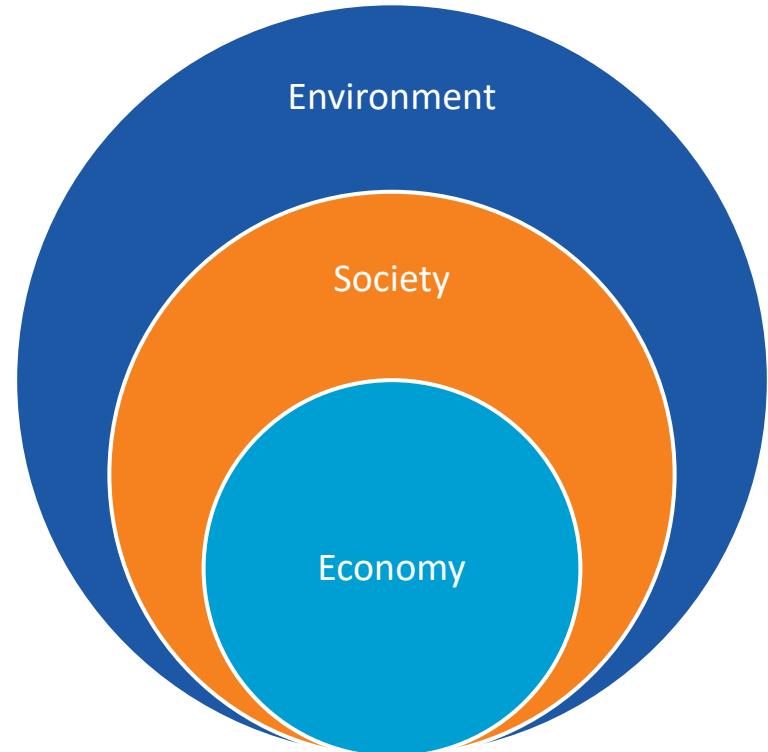
- Reduce environmental footprint
 - Minimizing waste to landfills
 - Materials to their highest and best use
 - Reduce pollution and emissions

Social

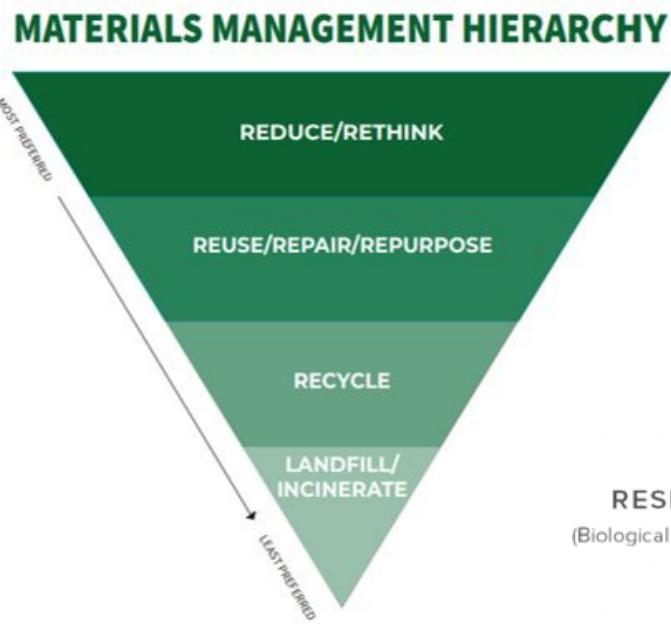
- Sense of pride for employees
- Marketing edge

Financial

- Cost savings – waste reduction
- Cost transfer – reducing trash service to add compost service



Waste Hierarchies

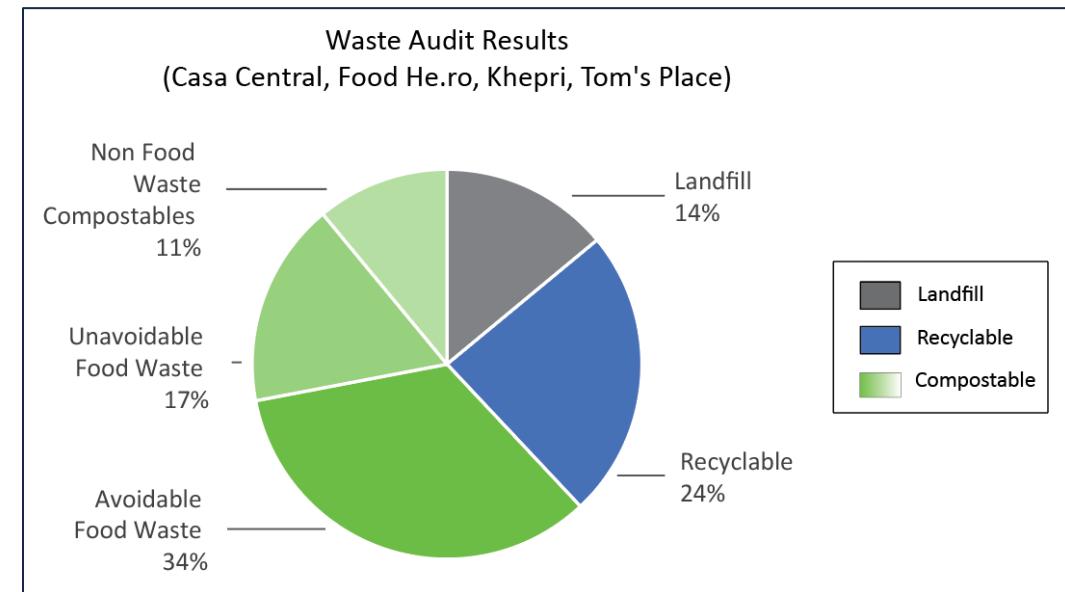


Food Waste Assessments 2023

We worked with 5 small food-focused businesses on food waste. This included site visits, waste audits, and food waste reduction and diversion implementation.

Challenges

- Lack of physical space in the kitchen
 - Addition of compost bins
- Staff communication
 - Multiple shifts
 - Standard operating procedures
- Designating a champion
 - Engage employees early in the process



62% of all material sorted was compostable.



Reducing PFAS Exposure in Chicagoland

Increase the adoption of compostable,
PFAS-free foodware

Expanding Access to PFAS-Free Foodware

Goal: Increase the adoption of alternative, single-use foodware without harmful PFAS (no or safer coating).

Working with 30 businesses in the Chicagoland area to provide:

- No-cost foodware assessments to food-focused businesses
- Up to \$300 to purchase PFAS-free foodware products to test
- Connections to PFAS-free foodware suppliers in the region
- Other sustainability opportunities that benefit a business' bottom line



Lessons Learned



- Businesses are interested in safer foodware options and care about customer PFAS exposure and getting ahead of state legislation
- The issue: It's challenging for businesses to know what to look for!
- Compostable product branding can be a deterrent for a business to purchase items
- Not all products are more expensive, but it depends on actual purchasing volume and current product pricing
- Most businesses are ok paying a little more a month to know the product will be effective for housing their food

Lessons Learned

- Businesses open to using different looking products, but the product must have similar attributes (performance, visual) to what they already use.

Other Sustainability Recommendations

During the site visit, we found other opportunities to reduce resource use, increase operational efficiency, and reduce costs. Table B summarizes these opportunities, while listing the potential savings and available incentives to help with implementation of these best practices.

Table B. Sustainability recommendations for Righteous Kitchen

Measure	Savings	Incentives
Switch faucet aerators to low-flow aerators	Over 9,750 gallons of water, \$280/year	Free low-flow aerators through the Nicor Gas Energy Efficiency Program.
Upgrade pre-rinse spray valve to a low-flow spray valve	Over 8,900 gallons of water, \$260/year	\$25 rebate available through the Nicor Gas Energy Efficiency Program.
Add weather sealing to the dock door and back door	Up to 10% annually on heating/cooling bills	ComEd Small Business Offering Program - work with ComEd to identify incentives.
Install electrically commutative (EC) evaporative fan motors in the walk-in unit	Over 1500 kWh saved, \$200 saved annually	ComEd Small Business Offering Program, up to \$210 reimbursed per motor installed.
Install strip curtains on the walk-in unit	Over 1800 kWh saved, \$230 saved annually	ComEd Small Business Offering Program, \$4 reimbursed per square foot of walk-in.
Total Savings	\$970 per year	

Table 2. New Product Recommendations for 32oz Round Container

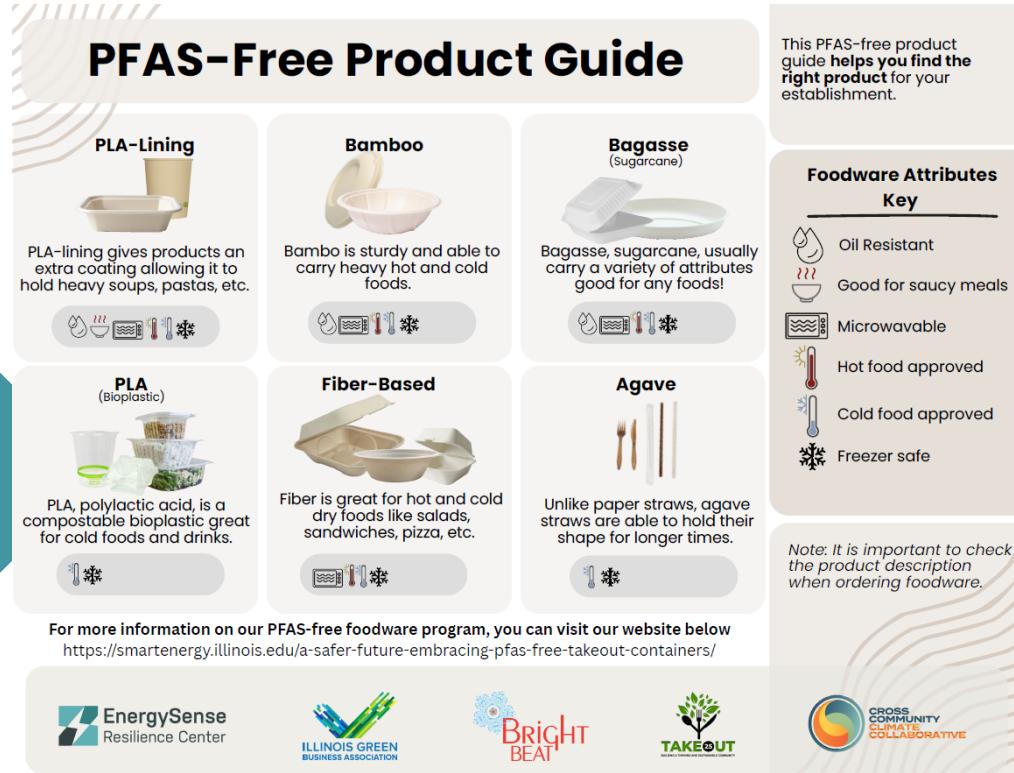
New product (linked with product information)	Supplier	Cost per case (amount/case)	Cost difference/unit	Total monthly cost	Monthly cost difference
A) World Centric's fiber bowl with PLA lining and lid	WasteNot Compost	\$202.36 (500/cs)	\$0.25	\$182.12	-\$9.80
B) Better Earth's rectangular fiber bowl with bamboo lid	Urban Canopy	\$170.86 (400/cs)	\$0.27	\$192.22	+\$0.30
C) Better Earth's bamboo collection round bowl with bamboo lid	Urban Canopy	\$117.36 (200/cs)	\$0.28	\$196.12	+\$4.20
D) Better Earth's rectangular fiber bowl with PLA lid	Urban Canopy	\$226.23 (400/cs)	\$0.41	\$254.51	+\$62.59
E) Better Earth's bamboo collection round bowl with PLA lid	Urban Canopy	\$113.56 (200/cs)	\$0.41	\$255.51	+\$63.58

***Monthly cost difference** refers to the difference from your current foodware's monthly cost and the new safer products monthly cost. **Cost per case** contains the cost for both the lid and bowl.



Figure 2. shows the recommendations in order from most(A) to least(E) recommended based on price.

We look forward to sharing our results!



PFAS-Free Product Guide

This PFAS-free product guide helps you find the right product for your establishment.

Foodware Attributes Key

Icon	Attribute
Oil Resistant	Oil Resistant
Good for saucy meals	Good for saucy meals
Microwavable	Microwavable
Hot food approved	Hot food approved
Cold food approved	Cold food approved
Freezer safe	Freezer safe

PLA-Lining
PLA-lining gives products an extra coating allowing it to hold heavy soups, pastas, etc.
Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

Bamboo
Bamboo is sturdy and able to carry heavy hot and cold foods.
Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

Bagasse (Sugarcane)
Bagasse, sugarcane, usually carry a variety of attributes good for any foods!
Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

PLA (Bioplastic)
PLA, polylactic acid, is a compostable bioplastic great for cold foods and drinks.
Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

Fiber-Based
Fiber is great for hot and cold dry foods like salads, sandwiches, pizza, etc.
Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

Agave
Unlike paper straws, agave straws are able to hold their shape for longer times.
Oil Resistant, Good for saucy meals, Microwavable, Hot food approved, Cold food approved, Freezer safe

Note: It is important to check the product description when ordering foodware.

For more information on our PFAS-free foodware program, you can visit our website below
<https://smartenergy.illinois.edu/a-safer-future-embracing-pfas-free-takeout-containers/>

EnergySense Resilience Center **ILLINOIS GREEN BUSINESS ASSOCIATION** **BRIGHT BEAT** **TAKEOUT** **GROSS COMMUNITY CLIMATE COLLABORATIVE**

- Producing a foodware guide, flyers for businesses and the public, economic analysis, and case studies
 - All documents will be available on our website.
- Will hold webinars in January 2026 to showcase findings
- We would like to expand this initiative across the state.
 - Interested in partnering? Let's chat!

Sustainability Assessments – 2025/2026!

Source Reduction Assistance
Small food businesses in
DuPage or Kane counties.

Beverage Resilience Program
Breweries, wineries,
distilleries, and other craft
beverage businesses across
Illinois.

What Will the Process Look Like?

Process steps	Description (Participant's time commitment)
Step 1: Initial Conversation	Brief introductory phone call to discuss the assessment process, expectations, and discuss utility data collection. (30 minutes)
Step 2: Pre-Assessment Data Collection & Analysis	The participant will share utility billing data as available. Providing this information helps our team quantify savings opportunities found on-site. (30 minutes)
Step 3: Facility Walkthrough	On-site visit to discuss and tour the facility to review current conditions of the facility including infrastructure and operational processes. Identify sustainability opportunities for cost and resource savings. (1 hour)
Step 4: Providing Recommendations & Resources	ISTC and EnergySense will use data and information from previous steps to develop strategies to reduce costs and/or reduce environmental impact. Recommendations and resources will be shared via written report and presentation with Q&A. (1 hour)
Step 5: Implementation	ISTC and EnergySense will assist businesses that are interested in implementing recommended strategies. Implementation assistance includes further guidance on equipment and/or process upgrades, as well as connecting to incentive or funding opportunities. (Time varies)
Step 6: Case Study (Optional)	A case study will be developed to showcase opportunities uncovered and strategies implemented. (0-1 hours)



Thank you!

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