SUSTAINABLE PRINCETON.

SUSTAINABLE BUSINESS Guide

2025

CAPERS Research Project
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Sustainable Business Guide

Why Go Green?

- **Save on Utility Costs for Energy & Water and cash in on limited-time rebates**
- **Improve Safety & Efficiency in the Workplace with upgraded technology**
- **Appeal to environmentally-conscious consumers, a growing sector**

How to Use this Guide: A Color Key

This guide is divided into 6 categories of interest for a sustainable transition. Each includes 3 types of projects, categorized by relative cost and effort to implement. More affordable and easier projects can be implemented more frequently, while larger projects may require significant planning. In an effort to make the process smoother for every business owner, the left column also includes a **“First Step”** for each project, in an effort to act as a guideline for prospective implementation.

Color	Recommended Implementation
Green = small project with minimal cost	one green project every quarter
Yellow = medium-sized project with costs involved	one yellow project every year
Orange = large project with major budgeting and planning involved	one orange project every 5 years

Environmental Impact

Cost Savings

ENERGY USE REDUCTION

Reducing energy consumption is a cornerstone of any sustainability effort. Not only does it lessen our environmental impact by decreasing reliance on fossil fuels and lowering greenhouse gas emissions, but it also translates to significant cost savings for businesses.

LED Lighting

Take stock of the number of LED lights; work with contractor to get an estimate and use PSE&G's Direct Install Program to find incentives.

Reduces energy consumption of lights by 90% and lasts 25 times longer than incandescent lights

- Savings: Average savings of $225 in energy costs per year
- Costs: $1 for 1200 hours Incandescent, $4 for 25,000 hours LED

DIY Air Sealing on Doors and Windows

Buy caulk from a local hardware store, and identify air leaks. DIY using this step-by-step guide!

10-20% of reduction in energy bill by fixing air leaks with weather stripping and caulking

- Savings: $100 per month in energy bill savings for the average NJ small business. Investment is recovered in 1 month or less.
- Costs: About $10

Annual HVAC Maintenance

Get in contact with a local HVAC contractor; check for eligibility to receive NJ Clean Energy Program grants for maintainence.

5-15% energy consumed by air conditioner can be reduced by replacing with clean filter

- Savings: 5-15% savings in heating/cooling costs
- Costs: $500 annual cost

Smart Thermostat

Ensure eligibility for the upto $100 rebate on certified smart thermostats.

10-12% on heating costs and 15% on cooling costs

- Savings: $140/year on energy bills; cost made up in maximum 2-3 years.
- Costs: About $300 to $400

ENERGY USE REDUCTION
(continued)

Ensure eligibility for the $30 to $50 incentive on lighting controls from the Business Energy Saver Program, page 10.

Lighting Timers

50% reduction in hours of use

- Savings: Reduces lighting costs; cost made up in 2-5 years
- Costs: About $80 to $200 dollars

Buy appropriate window film type using this guide, then apply it - DIY with this step-by-step guide!

Window Film

Reduce energy loss by 30-50%.

- Savings: Cooling costs reduced by 30%
- Costs: Low emissivity coatings typically cost 10-15% more than regular windows

Read the Window Buying Guide by EnergyStar to decide the best kind of window for your business.

EnergyStar Windows/Doors

13% reduction in energy bill.

- Savings: 13% reduction in household energy bill
- Costs: Depends on quantity

Induction Cooktop

Learn more about the details of making the switch to an induction cooktop.

3 times more efficient than gas stoves and 10% more efficient than smooth top electric cooking ranges

- Savings: government rebates of $840 may be available
- Costs: About $1000

PSE&G's Direct Install Program can help unlock further savings with a free, on-site, energy assessment.

WATER USE REDUCTION

Water is an essential part of business operations, but its overuse and misuse can strain local resources and contribute to environmental problems. Many simple yet impactful measures to reduce water consumption can meaningfully contribute to a more sustainable future while easing the water bill.

Learn more about the importance of faucet aerators; aerators may also be eligible for the $2/aerator rebate.

Water efficient faucets with sensors

WaterSense faucets reduces sink's water flow by 30%

- Savings: $493 annually in water bill savings
- Costs: $5 to $10 dollars per faucet aerator

Take stock of the current spray valves (if any) and get a quote for installation from a local licensed plumber. Learn more about the spray valve that is right for you.

Low-Flow Pre-Rinse Spray Valves

Water use reduced by 7,000 gallons per year

- Savings: $500 - 600 in savings
- Costs: About $300 for 1 unit

Get a quote from local plumber for installation. Learn more about the benefits and functions of a pressure reducing valve.

Water Pressure Reducing Valves

33% water use reduction, reduced chance of leaks

- Savings: 30% annual savings
- Costs: Approximately $500 with installation

Start with a self-check on leaks using the leak detection kit from a EPA WaterSense partner.

Leak Detection System

Reduce water waste, reduced property damage and reduced risk of contamination

- Savings: Reduces insurance costs
- Costs: $375 to $600

WATER USE REDUCTION
(continued)

Low-Flow toilets/urinals

Check for eligibility to receive NJ Clean Energy Program grants for low-flow plumbing upgrades.

Toilets are ⅓ of a building's water usage; this is reduced by low-flow urinals.

- Savings: 20% savings on water and waste water costs - about $875 annually
- Costs: Extra $125 per unit compared to regular toilets

Boilerless Steamer

Check for products and rebates at EnergyStar Steamers.

Use about 2 gallons a day instead of 30 with a conventional steamer

- Savings: 85% cost savings, $3523 annual savings, $42277 lifetime savings
- Costs: Varies widely, about $10,000

Tankless Water Heater

Contact a contractor to evaluate the remaining lifetime of the current water heater.
New rebates available in 2025.

8-14% more energy efficient thus having low operating and energy costs

- Savings: Twice as long operating life
- Costs: About double cost of parts and installation compared to a regular water heater

EnergyStar Dishwasher

Learn more about what dishwashers are best for you. Also, select locations may recieve $300-$1000 rebates.

12% less energy and 50% less water than a standard model

- Savings: $3325 (lifetime) - approx $360/year
- Costs: Highest models are about $2000 more expensive (50% more expensive)

The EPA's WaterSense Program can help with further water savings and has more detailed information on water-efficient products!

RECYLING & WASTE MANAGEMENT

Effective waste management is crucial for minimizing environmental damage and promoting a circular economy. Reduced waste generation, and improved recycling practices can be achieved through simple methods, in turn unlocking financial benefits from strealined business practices.

Take stock of the quantity of unlabeled waste bins. Print out a high quality graphic from the Department of Environmental Conservation.

Evaluate the shipping materials that are recieved from suppliers and ensure they can be reused.

Get in touch with local food banks in the area; locate them using the Food Bank Finder.

Get in touch with Mercer County to inquire about recycling program options.

Clearly Labeled Waste Bins

Separate bins reduces percentage of food waste in mixed bins by nearly 50%

- Savings: Reduction in disposal costs
- Costs: Labels cost $5 to $10

Recycling/Reuse of Shipping Materials

Reduce CO2 emissions by up to 60%, reduce solid waste by up to 86%

- Savings: Reduction in disposal costs
- Costs: N/A

Donations to Food Banks

Food recovery by food banks can reduce 816 metric tons of methane over a year

- Savings: Tax deductions for donation amount
- Costs: Transportation costs to food banks

Participation in Recycling Program

Reduces carbon emissions and gives energy savings

- Savings: Reduction in disposal costs
- Costs: Rates vary, Mercer County is $150 annually

RECYLING & WASTE MANAGEMENT (continued)

Participation in Composting Program

More information coming soon! New incentives available in 2025.

Food waste creates 8-10% of global greenhouse gas emissions

- Savings: Up to $44 per ton of solid waste
- Costs: Rates vary, municipal options are free

Digital Recipts

Explore digital recipt software that allows for a streamlined transition to paperless book-keeping.

Receipts use 3,680,000 trees and 10 billion gallons of water every year in the US

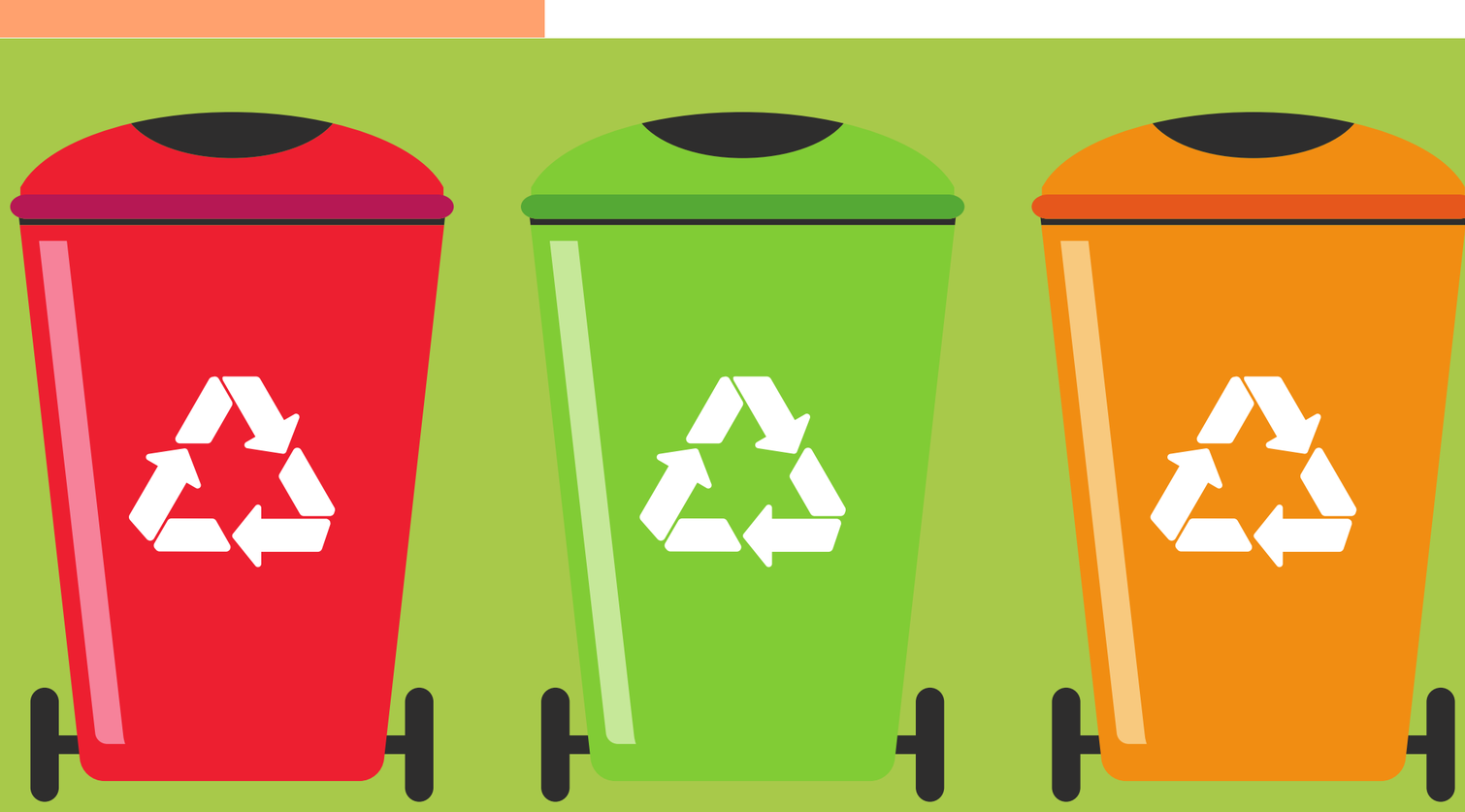
- Savings: $1186 savings annually from not having to print receipts (assuming 100 receipts/day)
- Costs: Approximately $400 for a digital receipt system

Bulk purchasing from suppliers

Talk to suppliers about the options they provide for bulk purchasing; re-evaluate budgeting to ensure purchasing in bulk is viable.

Reduced cost per unit, lower transportation costs, reduced packaging waste

- Savings: Reduced costs of transportation and raw materials, improved profitability
- Costs: Large one-time costs



By 2030, a mere 20% to 25% reduction in consumer food waste could save the world between $120 and $300 billion annually.

REUSE & DISPOSABLE USE REDUCTION

An impactful way to improve your bottom line is by reducing reliance on single-use disposables. Practical and cost-effective strategies to minimize disposable consumption and promote reuse can lead to optimzed cost savings.

Eliminating Single-use items

Single-use items are one of the largest ways that waste is created from day-to-day operations. Single-use items are also not recycled efficiently, meaning eliminating them is the best path forward.

Reduces the global warming potential by by 50%

- Savings: $3,000 to $22,000 in savings, 50% cost reduction
- Costs: Upfront costs of buying products

Only Reusable Cups Available

Reduce carbon emissions by 69%.

- Savings: $46 in savings over 1000 uses
- Costs: $34.99 for a case of 24

Airdryer in bathroom, no paper towels

Airdryers use a ⅓ of the energy of paper towels, 88% Reduction of Carbon Footprint vs. Paper Towels

- Savings: 95% Cost Savings Vs. Paper Towels
- Costs: Cost made up in one year (upfront cost of $505)

Customer-provided reusable container discount

Reduction in single-use item waste

- Savings: Reduction in costs to purchase single-use items
- Costs: Must provide some discount to customer

Use an online menu template to digitalize the current menu.

Digital signage/no printed menus (QR code menus)

Save approximately 150 sheets of paper, and time/cost of updating them

- Savings: Perceived reduction in wait times by more than 35% and improved queue management.
- Costs: $1000 single-time cost

Determine a location to install the station and contact a contractor. Keep an eye out for grants up to $2500 from American Water.

Water Fill Up Station

Reduces energy consumption by 85% and greenhouse gas emissions by 79%

- Savings: Average American saves $1,350 by using a reusable water bottle
- Costs: About $800 for a station

FOOD

The reassessment of the food service workflow can reveal significant oppurtunities for savings. Sustainable food practices can directly translate to financial benefits, and can contribute to a healthier planet and a healthier profit margin for your business.

Estimate herbs needs and buy seeds in the spring to grow indoors.

Can either compost tea leaves in a pot or use vermicomposting (using worms) for food scraps.

Onsite pots for growing herbs and greens

Reduce greenhouse gas emissions from transportation

- Savings: Reduced cost of buying herbs/greens
- Costs: Minimal costs for containers

Composting food scraps

Sequesters carbon in the soil, reducing greenhouse gas emissions

- Savings: Savings on disposal costs of up to $44 per ton
- Costs: $50 to $100 for all components

Estimate condiment use and contact condiment bulk pouch suppliers.

Bulk dispensers for condiments

Reduced plastic packaging waste

- Savings: $34.74 per box of condiments, 48% savings
- Costs: $271 for a dispenser, cost made up in the time 7 boxes of condiments are purchased

Conduct an assessment of current inventory and add it to a free Microsoft Excel template.

Inventory Management System

Food waste creates 8-10% of global greenhouse gas emissions

- Savings: Savings on disposal costs of up to $44 per ton
- Costs: $20 to $100 per month, or for free with spreadsheet templates

SERVICE

Sustainable service practices not only benefit the environment but can also enhance customer experience. Incorporating sustainable practices can create a win-win situation for your business, promoting eco-conscious decisions while simultaneously reducing operational expenses and potentially attracting environmentally conscious customers.

Napkins from one-at-a-time dispenser

Purchase a one-at-a-time dispenser that fits the space constraints.

Ensure all employees are aware of the new policy.

50% reduction in napkin usage

- Savings: 50% reduction in costs
- Costs: $17.00 for a napkin dispenser

Cutlery and condiments on request

Reduction in cutlery waste

- Savings: Reduced operating costs
- Costs: N/A

Specification of cutlery/condiments amount

Ensure all employees ask for specific quantities when taking orders.

Reduction in waste

- Savings: Reduction in condiment costs
- Costs: N/A

Straws on demand, no disposable straws

Ensure all employees are aware of the new policy.

Decrease in straw consumption by 32%.

- Savings: Proportionate decrease in costs
- Costs: N/A

Options for smaller portion sizes

Add this as a option on the digital menu, and have serving staff mention this to customers.

Reduction in waste

- Savings: More customer friendly, in line with current tastes
- Costs: Minimal administrative costs

Main Street's Guide to Sustainability

Editor's Note

Small businesses remain at the heart of our community. Yet in today's world of ever-growing challenges, the well-being of the planet and the community they serve is yet another problem for small businesses to tackle. Indeed, over 40% of Princeton's greenhouse gas emissions come from small businesses; however, tackling sustainability does not have to be a lengthy and challenging process. This guide aims to serve as guidance for actionable and viable steps that every business in the community can take. From reducing waste and lowering energy consumption to adopting sustainable purchasing practices and exploring greener transportation options, these strategies offer straightforward ways to make a positive environmental impact. By taking these steps, small businesses can contribute to a cleaner, healthier environment while also fostering long-term success and resilience. Together, taking these steps can create tangible change and lead to an vibrant intersection of prosperity and sustainability for Princeton.

Climate change is a global issue,
but change must begin locally.

CONTRIBUTORS

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Aritra is a sophomore at Princeton High School and is passionate about bringing change in his community. Through his work as a CAPERS volunteer with Sustainable Princeton, he hopes to propel adoption of sustainable practices in all parts of the community.

CAPERS (Climate Action Plan Emissions Reduction Strategies) is a volunteer research team that informs Princeton's Climate Action Plan. Research team members work to implement the Plan's 80+ actions. This research contributes to analyzing multiple options for implementing these actions through an environmental, economic, and equity lens. The team consists of volunteers ranging from high school students to sustainability professionals, currently residing across the United States.