

A man with grey hair, wearing a white t-shirt and a brown apron, is looking down at a tablet computer in his hands. He is standing in a grocery store aisle, with shelves of products visible in the background. The image has a blue tint and a red diagonal graphic element on the left side.

# Reduce Operational Costs and Increase Profit through Benchmarking and Upgrading Your Store

**Rural Grocery Summit 2024**

Courtney Dragiff – Ratio Institute



# Agenda

- Introduction
- Benefits of Benchmarking
- USDA REAP Grants
- Assessment Options
  - Single Store Assessments
  - Sustainable Food Retail Certification
- Free Resources for ESG Reporting
- Q&A



## Our Team



**Peter Cooke**

Peter comes to Ratio Institute with over 20 years of experience developing sustainability programs, including starting one of the nation's first green hotel programs. That success led Peter to develop a similar program for Hannaford, New England's largest grocery chain. Later, at Manomet, a sustainability non-profit, Peter founded the Grocery Stewardship Certification (GSC) Program in 2012.



**Jonathan Tan**

Jonathan brings to Ratio Institute more than 20 years of experience as an entrepreneur and a business executive for both Fortune 500 and privately held companies. His career began with driving energy efficiency at food manufacturing and food packaging plants. He transitioned to energy-efficiency work at food retail outlets in the early 2000's, focusing on refrigeration, HVAC, and lighting.



**Courtney Dragiff**

Courtney joins Ratio Institute with over a decade of experience in land conservation and water management. After receiving an M.S. in International Sustainable Development and Climate Change from Antioch University New England, she helped develop Ratio's suite of ESG reporting tools. She now focuses on circular economies and operational efficiency within the food retail industry.





## Our Vision

To build a successful and sustainable food retail industry that will help lead the way to a more viable future **for everyone.**

## Our Mission

To **accelerate** viability and measurable sustainability in food retail through expert collaboration, industry resources, and practical tools.



## TOGETHER, WE CAN



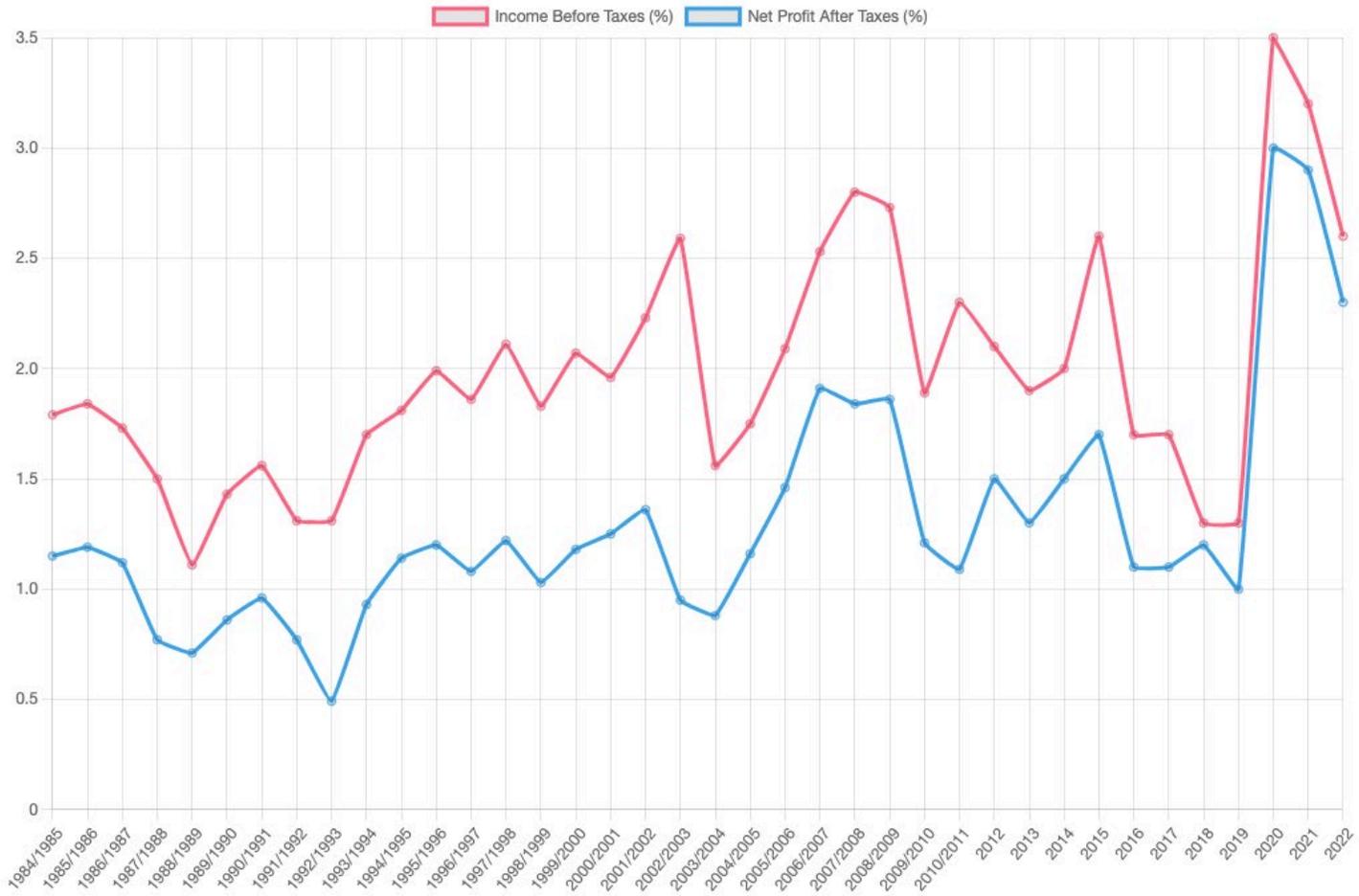
Double the average net income of the industry by 2050 through **sustainable** practices, processes, technology, education, and thought leadership.



# Industry Profit Margin



[Industry Topics](#)
[Research & Insights](#)
[Events & Education](#)
[Food Safety](#)
[Government Affairs](#)
[Get Involved](#)



Year	Net Income (%)
2013	1.30
2014	1.50
2015	1.70
2016	1.10
2017	1.10
2018	1.20
2019	1.00
2020	3.00
2021	2.90
2022	2.30
10-Yr Avg	1.71
20-Yr Avg	1.47



# Benefits of Benchmarking

---

- Know where your operations meet, exceed, or fall short of a standard
- Prioritize long-term capital projects
- Implement targeted training to take advantage of no-cost savings
- Share your impact with the community



Sustainability performance is in demand by employees

---

## On-the-Job Impact

---

Workers who are able to make social or environmental impact on the job are more satisfied by 2:1



---

[www.netimpact.org/whatworkerswant](http://www.netimpact.org/whatworkerswant)



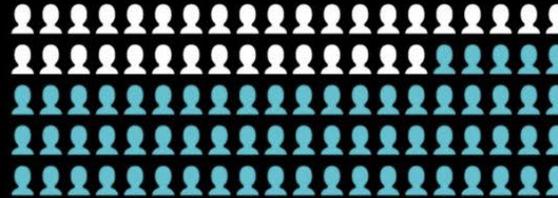
Sustainability performance is in demand by employees

# THE UNILY 2020 CENSUS

DATA FROM 2,000 UK BASED OFFICE WORKERS CONDUCTED AUGUST 2020 BY CENSUSWIDE



**65%** RESPONDENTS MORE LIKELY TO WORK FOR A COMPANY WITH A STRONG ENVIRONMENTAL POLICY



**72%**

RESPONDENTS CONCERNED ABOUT ENVIRONMENTAL ETHICS



OF RESPONDENTS WOULD LIKE TO LEARN MORE GREEN SKILLS TO BECOME MORE VALUABLE IN THE WORKPLACE



OF EMPLOYEES SAID THEY NEED MORE INFORMATION ON THEIR COMPANY'S ENVIRONMENTAL GOALS



OF EMPLOYEES SAID THEY NEED MORE SPECIFIC TRAINING ON ENVIRONMENTAL GOALS



# Business Case for Operational Sustainability

## Cost Saving Potential

Every \$1 saved with energy efficiency is equal to \$18 in revenue.\*

**\$1**

### Operating Costs

- Electricity
- Maintenance
- Labor
- Rent
- Water
- Advertising
- Etc.



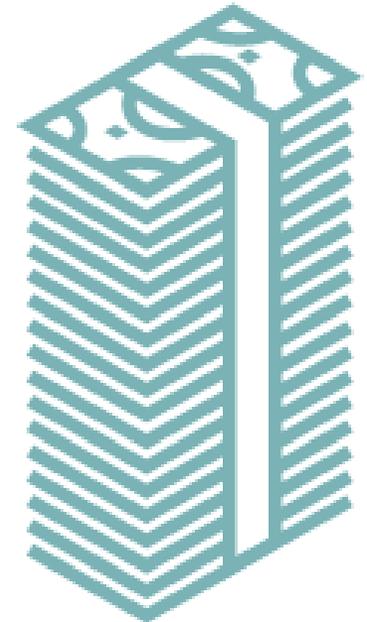
Energy Efficiency



**\$18**

### Revenue

- Sales
- Recycling
- Efficiency



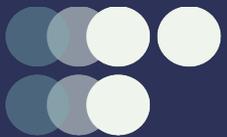
# How Food Retailers Can Add \$15,000 in Profit in 15 Minutes



\$15k



15  
min



# 5 Practices

Practice		Annual Profit Improvement	Sales Equivalent
1	Walk-in door—kept closed	\$5,295	\$95,310
2	Walk-in door—maintained	\$1,763	\$31,734
3	Air curtains—20' clear	\$3,285	\$59,130
4	Air infiltration	\$3,441	\$61,938
5	Plug loads	\$1,466	\$26,388
<b>Totals</b>		<b>\$15,250</b>	<b>\$274,500</b>

1: (3) Walk-in coolers + (1) Walk-in freezer – 1-hour per day closed

2: (3) Walk-in coolers + (1) Walk-in freezer – eliminate air infiltration

3: Keeping 20' of air curtains clear

4: Keeping dock doors closed 4 hours per day + fix (1) door to sales floor

5: Turning off wrapping machines when not in use + eliminate (1) vending machine

# 5 Practices

Practice		Annual Profit Improvement	Sales Equivalent
1	Walk-in door—kept closed	\$5,295	\$95,310
2	Walk-in door—maintained	\$1,763	\$31,734
3	Air curtains—20' clear	\$3,285	\$59,130
4	Air infiltration	\$3,441	\$61,938
5	Plug loads	\$1,466	\$26,388
<b>Totals</b>		<b>\$15,250</b>	<b>\$274,500</b>

1: (3) Walk-in coolers + (1) Walk-in freezer – 1-hour per day closed

2: (3) Walk-in coolers + (1) Walk-in freezer – eliminate air infiltration

3: Keeping 20' of air curtains clear

4: Keeping dock doors closed 4 hours per day + fix (1) door to sales floor

5: Turning off wrapping machines when not in use + eliminate (1) vending machine

# 5 Practices

Practice		Annual Profit Improvement	Sales Equivalent
1	Walk-in door—kept closed	\$5,295	\$95,310
2	Walk-in door—maintained	\$1,763	\$31,734
3	Air curtains—20' clear	\$3,285	\$59,130
4	Air infiltration	\$3,441	\$61,938
5	Plug loads	\$1,466	\$26,388
<b>Totals</b>		<b>\$15,250</b>	<b>\$274,500</b>

1: (3) Walk-in coolers + (1) Walk-in freezer – 1-hour per day closed

2: (3) Walk-in coolers + (1) Walk-in freezer – eliminate air infiltration

3: Keeping 20' of air curtains clear

4: Keeping dock doors closed 4 hours per day + fix (1) door to sales floor

5: Turning off wrapping machines when not in use + eliminate (1) vending machine

# 5 Practices

Practice		Annual Profit Improvement	Sales Equivalent
1	Walk-in door—kept closed	\$5,295	\$95,310
2	Walk-in door—maintained	\$1,763	\$31,734
3	Air curtains—20' clear	\$3,285	\$59,130
4	Air infiltration	\$3,441	\$61,938
5	Plug loads	\$1,466	\$26,388
<b>Totals</b>		<b>\$15,250</b>	<b>\$274,500</b>

1: (3) Walk-in coolers + (1) Walk-in freezer – 1-hour per day closed

2: (3) Walk-in coolers + (1) Walk-in freezer – eliminate air infiltration

3: Keeping 20' of air curtains clear

4: Keeping dock doors closed 4 hours per day + fix (1) door to sales floor

5: Turning off wrapping machines when not in use + eliminate (1) vending machine

# 5 Practices

Practice		Annual Profit Improvement	Sales Equivalent
1	Walk-in door—kept closed	\$5,295	\$95,310
2	Walk-in door—maintained	\$1,763	\$31,734
3	Air curtains—20' clear	\$3,285	\$59,130
4	Air infiltration	\$3,441	\$61,938
5	Plug loads	\$1,466	\$26,388
<b>Totals</b>		<b>\$15,250</b>	<b>\$274,500</b>

1: (3) Walk-in coolers + (1) Walk-in freezer – 1-hour per day closed

2: (3) Walk-in coolers + (1) Walk-in freezer – eliminate air infiltration

3: Keeping 20' of air curtains clear

4: Keeping dock doors closed 4 hours per day + fix (1) door to sales floor

5: Turning off wrapping machines when not in use + eliminate (1) vending machine

# Rural Energy for America Program (REAP)

## Projects Include



Renewable  
energy



Refrigeration  
system upgrades



Refrigerant  
change outs



HVAC



Controls  
upgrades



LED lighting



Infrastructure  
Repair - roofing  
and electrical

## Value & Benefits

- Reduced utility costs
- Reduced maintenance costs
- Reduced GHG emissions from refrigerant gas changes and leak mitigation
- Elimination of Ozone Depleting Substances (ODS, some stores retired R-22 systems)

# Rural Energy for America Program (REAP)

As of Q1 2024	Total	Average
Project Costs	\$ 6,685,992	\$ 607,817
Grant Funding Requested (11)	\$ 3,170,051	\$ 288,186
Grant Funding Awarded (3)	\$ 1,011,209	\$337,069



# Single Store Assessment

- ✓ Each location receives a concise report with individual results
- ✓ Best if stores are managed separately vs. centralized operations (manager will be responsible for implementing)
- ✓ Quick & simple: 30 minutes to complete with no training needed
- ✓ Exceeds USDA REAP grant energy audit requirement
- ✓ Not intended to track change over time

# Sustainable Food Retail Certification

- ✓ Best for many locations, typically with central leadership
- ✓ Benchmarks sustainability performance with topical summaries
- ✓ Provides consistency & accountability at the stores
- ✓ Identifies priorities for investment
- ✓ Facilitates communication with stakeholders
- ✓ Intended to be ongoing in order to track improvement over time



# What Does Certification Cover?



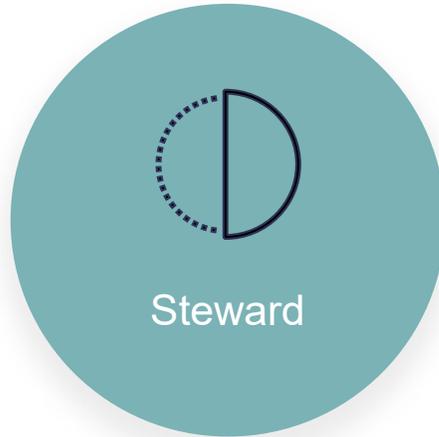
Each tier has minimum points requirement and required critical practices that increase in rigor.

Stores are certified individually.



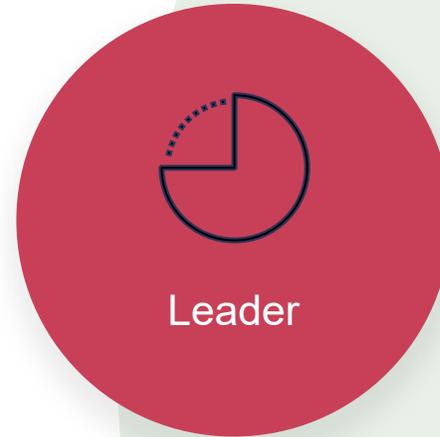
Advocate

Complies with requirements to prevent pollution, provides a safe working environment, ensures safe food products, and invests in basic efficiency measures.



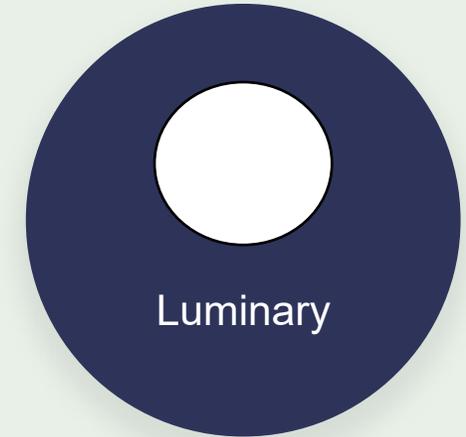
Steward

Has a public sustainability commitment, prioritizes community engagement and employee satisfaction, and prioritizes investments in efficiency improvement and impact reduction measures.



Leader

Has clear sustainability goals and has public commitments to drastically reduce or eliminate the biggest environmental and social impacts of its operations.



Luminary

Has integrated sustainability as an operational principle, and has invested in promoting the circular economy, net zero carbon, diversity, equity & inclusion, and sustainable and ethical supply chains in its operations.



Certification Levels



# Sustainable Food Retail Certification Results

GHG Emissions Avoided Due to Existing Sustainable Measures			
			GHG
	Realized	Realized \$	MT CO2e <sup>2</sup>
kWh	1,683,698	\$280,829	1,195.3
Gallons	2,095,763	\$24,101	4.7
Waste (tons)	3,924	\$408,497	8,135.9
<b>Annual Total</b>		<b>\$713,427</b>	<b>9,335.9</b>

Potential Avoided GHG Emissions			
			GHG
	Potential	Potential \$	MT CO2e
kWh	2,333,897	\$408,432	1,656.9
Gallons	4,503,548	\$51,791	10.1
Waste (tons)	458	\$68,028	921.5
<b>Annual Total</b>		<b>\$528,251</b>	<b>2,588.4</b>

Lighting				
Impact Area	Realized Value		Potential Value	
	kWh	\$	kWh	\$
Daylight sensors on sales floor lighting	0	\$0	63,008	\$11,026
LED lighting on medium temp case canopies	54,082	\$9,464	43,999	\$7,700
LED lighting in parking lot	93,984	\$16,447	23,232	\$4,066
Occupancy sensors <u>in back of</u> house	6,000	\$1,050	2,400	\$420
Occupancy sensors in breakroom	2,000	\$350	800	\$140
LED overhead lighting	315,039	\$55,132	0	\$0
LED lighting on low temp doors	534,322	\$93,506	0	\$0
Occupancy sensors in offices	14,000	\$2,450	0	\$0
Occupancy sensors in restrooms	14,000	\$1,820	0	\$0
<b>Annual Total</b>	<b>1,033,428</b>	<b>\$180,220</b>	<b>133,439</b>	<b>\$23,352</b>

# Sustainable Food Retail Certification Results

## *Realized Value*

Item	Paper Recycling	Rigid Plastics Recycling	Film Plastics Recycling	Glass Recycling	Wood Recycling	Metal Recycling	OCC	Food Donations	Food Diversion	Annual Total
<b>Annual total (tons)</b>	0.0	3.4	6.7	1,452.2	23.7	8.1	2,223.0	36.6	170.4	<b>3,924.2</b>
<b>Total recycling revenue (\$)</b>	\$0	\$541	\$134	\$21,783	\$11,868	\$122	\$177,840	\$0	\$0	<b>\$212,288</b>
<b>Landfill offset (\$50/ton)</b>	\$0	\$169	\$335	\$72,612	\$1,187	\$405	\$111,150	\$1,831	\$8,521	<b>\$196,209</b>
<b>Total \$ revenue including landfill offset</b>	<b>\$0</b>	<b>\$710</b>	<b>\$469</b>	<b>\$94,395</b>	<b>\$13,055</b>	<b>\$527</b>	<b>\$288,990</b>	<b>\$1,831</b>	<b>\$8,521</b>	<b>\$408,497</b>

## *Potential Value: assumes either initial implementation of practice or a 10% increase in compliance per year, if existing*

Item	Paper Recycling	Rigid Plastics Recycling	Film Plastics Recycling	Glass Recycling	Wood Recycling	Metal Recycling	OCC	Food Donations	Food Diversion	Annual total
<b>Annual total (tons)</b>	10.2	0.3	0.7	145.2	49.8	8.9	222.3	3.7	17.0	<b>458.2</b>
<b>Total recycling revenue (\$)</b>	\$31	\$54	\$13	\$2,178	\$24,923	\$134	\$17,784	\$0	\$0	<b>\$45,117</b>
<b>Landfill offset (\$50/ton)</b>	\$512	\$17	\$34	\$7,261	\$2,492	\$446	\$11,115	\$183	\$852	<b>\$22,911</b>
<b>Total \$ revenue including landfill offset</b>	<b>\$542</b>	<b>\$71</b>	<b>\$47</b>	<b>\$9,440</b>	<b>\$27,415</b>	<b>\$579</b>	<b>\$28,899</b>	<b>\$183</b>	<b>\$852</b>	<b>\$68,028</b>

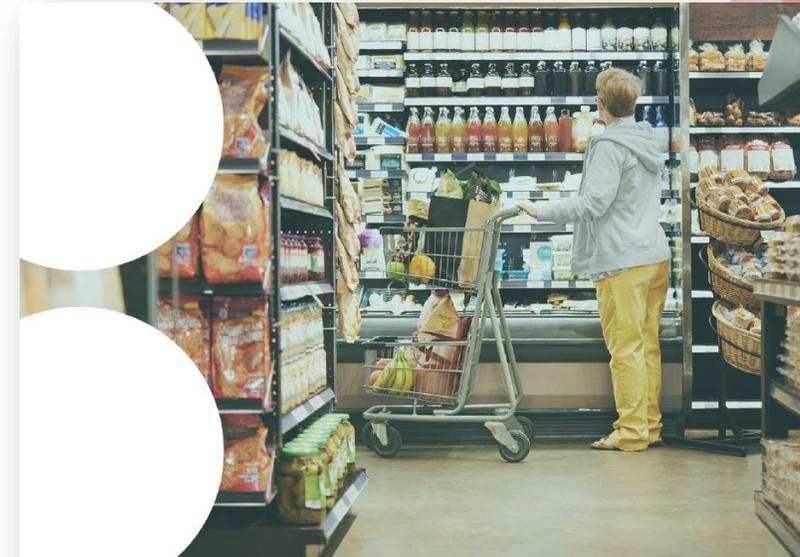
# Single Store Assessment

## Potential Best Sustainability Workplace Practices

 <b>Ratio Institute</b> Company: Ratio Institute Store No.: Example Store Store Contact Person: Example Store Street Address: 877 Cedar St. City: Santa Cruz ST: CA Zip: 95060 Phone: (831) 515-1311 Email: REAP@ratioinstitute.org		Date: 9/1/2023 Store Score: 20 FTE: 25,000 Store sq feet: 0.1810 Avg \$/KWh: 1.8650 Avg \$/Therm: 0.0947				
<b>Existing Best Sustainability Workplace Practices</b>						
Practice	Ans	#	Best Practice	Estimated Cost Savings	Equivalent Sales <sup>1</sup>	GHG Avoided (CO <sub>2</sub> e) <sup>2</sup>
<b>Operational Practices:</b>						
No. Feet of Blocked Return Air	Clear	20	Stock all cases to load limits	\$3,368	\$64,218	13.37
Appliances: heated wrapping machines	EOD	1	Use only as needed	\$0	\$0	0.00
				Subtotals:	\$3,368	\$64,218
<b>Lighting<sup>3</sup>:</b>						
Parking Lots - LED lighting	Yes	7	LED	\$1,854	\$33,365	7.26
Lighting: Sales Floor - LED	Yes	1,273	LED	\$28,322	\$456,001	\$8.85
Lighting: Offices - LED	No	0	LED	\$0	\$0	0.00
Lighting: Restrooms - LED	No	0	LED	\$0	\$0	0.00
Lighting: Backroom - LED	No	0	LED	\$0	\$0	0.00
				Subtotals:	\$28,322	\$456,001
<b>Medium Temperature (MT) Refrigerated Display Cases:</b>						
Lighting: Open MT multi-deck cases - LED	No	0	LED	\$0	\$0	0.00
Night shades: (MT) installed, good repair, and SOP in place	No	0	SOP to ensure pulled at closing	\$0	\$0	0.00
Cases: No. MT doors installed	Yes	8	MT cases with doors	\$1,340	\$20,526	4.47
Lighting: MT doors	Yes	3	LED	\$90	\$1,627	0.18
				Subtotals:	\$1,430	\$22,153
<b>Low Temperature (LT) Refrigerated Display Cases:</b>						
Lighting: LT doors - LED	No	0	LED	\$0	\$0	0.00
Side lids: (Coffin) installed, good repair, and SOP in place	No	0	SOP to maintain closed unless active shopping	\$0	\$0	0.00
Night shades: (Coffin) installed, good repair, and SOP in place	No	0	SOP to ensure pulled at closing	\$0	\$0	0.00
				Subtotals:	\$0	\$0
<b>Waste Streams:</b>						
Food donated	No	0	Benchmark Value (lb/yr)	\$0	\$0	0.00
Food diverted	No	0	28,913	\$0	\$0	0.00
Recycling: Cardboard	No	0	156,058	\$0	\$0	0.00
Recycling: Film plastics	No	0	1,142	\$0	\$0	0.00
Recycling: Customer plastic bags	No	0	5,021	\$0	\$0	0.00
Recycling: Rigid plastics	No	0	576	\$0	\$0	0.00
				Subtotals:	\$0	\$0
<b>Water:</b>						
Waterless seafood display installed	No	0	Waterless seafood display	\$0	\$0	0.00
PEVs: GPM < 1.2	Yes	1	PEV rated GPM < 1.2	\$769	\$13,843	0.98
				Subtotals:	\$769	\$13,843
<b>Total Realized:</b>				\$31,643	\$669,581	121.70
Notes: Note 1: \$18 of sales are required for each \$1 of profit or \$1 saved in operational efficiency (epa.gov) Note 2: Estimated GHG includes both Scope 1 and Scope 2 emissions Note 3: Lighting counts are estimates based on benchmarked numbers per square foot and are meant to be representative Note 4: Waste stream estimates are benchmarked against best in class per square foot and may not reflect individual opportunity						

Practice	Ans	#	Best Practice	Estimated Cost Savings	Equivalent Sales <sup>1</sup>	GHG Avoided (CO <sub>2</sub> e) <sup>2</sup>
<b>Operational Practices:</b>						
Outside Vending machines	Yes	2	Remove	\$1,850	\$33,298	7.24
No. Feet of Blocked Return Air	NA	0	Stock all cases to load limits	\$0	\$0	0.00
Appliances: Heated wrapping machines	EOD	1	Use only as needed	\$250	\$4,495	1.68
				Subtotals:	\$2,100	\$37,794
<b>Lighting<sup>3</sup>:</b>						
Parking Lots - LED lighting	Yes	0	LED	\$0	\$0	0.00
Lighting: Sales Floor - LED	Yes	0	LED	\$0	\$0	0.00
Lighting: Offices - LED	No	10	LED	\$190	\$3,425	0.75
Lighting: Restrooms - LED	No	10	LED	\$190	\$3,425	0.75
Lighting: Backroom - LED	No	74	LED	\$1,408	\$25,345	5.51
				Subtotals:	\$1,789	\$32,195
<b>Medium Temperature (MT) Refrigerated Display Cases:</b>						
Cases: Open multi-deck cases - retrofit or replace with doors	No	62	Retrofit or replace with doors	\$7,856	\$141,404	30.76
Lighting: Open MT multi-deck cases - LED	No	62	LED	\$934	\$16,811	3.66
Night shades: (MT) installed, good repair, and SOP in place <sup>5</sup>	No	62	SOP to ensure pulled at closing	\$1,309	\$23,567	5.13
Lighting: MT doors - LED	Yes	6	LED	\$181	\$3,254	0.00
				Subtotals:	\$8,971	\$161,469
<b>Low Temperature (LT) Refrigerated Display Cases:</b>						
Cases: No. feet of open LT multi-deck cases	No	0	LT Door case	\$0	\$0	0.00
Lighting: Open LT multi-deck cases - LED	No	0	LED	\$0	\$0	0.00
Night shades: (LT) installed, good repair, and SOP in place	No	0	SOP to ensure pulled at closing	\$0	\$0	0.00
Lighting: LT doors - LED	No	14	LED	\$296	\$5,322	1.16
				Subtotals:	\$296	\$5,322
<b>Cases: Coffin (hunker) cases:</b>						

# ESG Reporting Resources



July 2022

## Food Retail Environmental, Social, and Governance (ESG) Reporting Standard

Lead Author: Heather Putnam, PhD  
Contributors: Peter Cooke, Courtney Dragiff, Ryan Hubert, Chris Rogers, Jonathan Tan



# Benchmarking is ATTAINABLE! Start where you can, today.

Practice		Annual Profit Improvement	Sales Equivalent
1	Walk-in door—kept closed	\$5,295	\$95,310
2	Walk-in door—maintained	\$1,763	\$31,734
3	Air curtains—20' clear	\$3,285	\$59,130
4	Air infiltration	\$3,441	\$61,938
5	Plug loads	\$1,466	\$26,388
<b>Totals</b>		<b>\$15,250</b>	<b>\$274,500</b>





# Q & A

Local,  
LOCAL,  
Local

FRESH-CUT FRUIT TO GO!  
MADE IN-HOUSE DAILY

KNOW WHERE  
YOUR FOOD  
IS FROM!

LOCAL  
grown within  
100 MILES  
from here





# Thank You!

Get in touch:

Courtney Dragiff

Ratio Institute

[Courtney.Dragiff@ratioinstitute.org](mailto:Courtney.Dragiff@ratioinstitute.org)

(831) 515-1439





## About Ratio Institute

Ratio Institute is an independent, non-profit organization dedicated to accelerating measurable sustainability and success in food retail through expert collaboration, industry resources, and practical tools.

We have worked with over 1,000 grocery stores and several of the top 100 grocery chains and many independents to create store-level and regional sustainability solutions that reduce costs, shift internal cultures, and improve overall performance.

We believe food retail is uniquely positioned to make a positive impact, and that's why we've made it our mission to leverage the power of the industry's collective expertise and influence. Together, we can lead the way to a more sustainable, and more viable, future for everyone.

Ratio Institute is a project of Ecology Action.

