



# **Food Lion's Experience with U.S. Environmental Protection Agency Programs: GreenChill and ENERGY STAR**

February 23, 2021

# Questions and Webinar Feedback

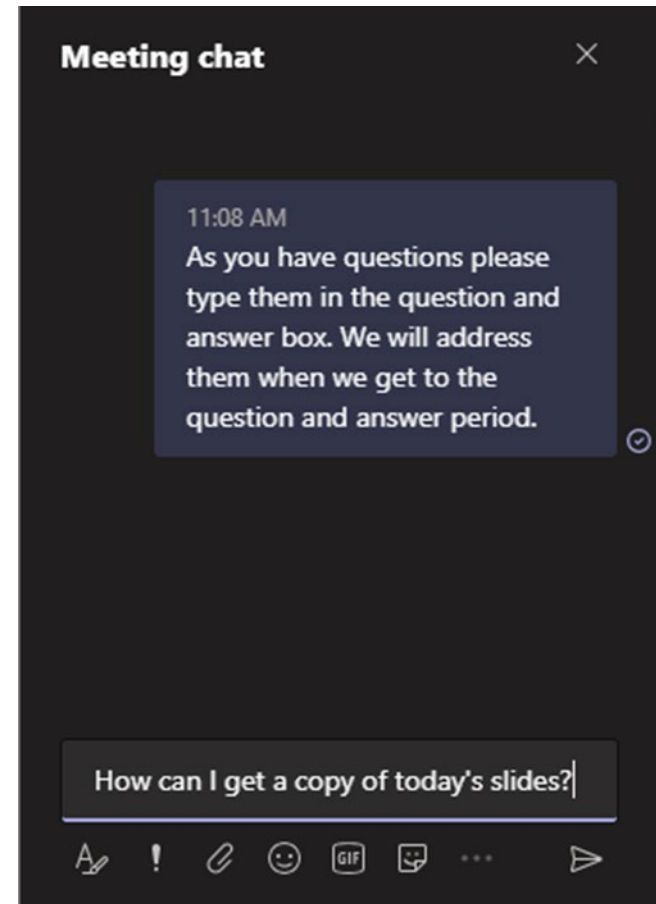


## Question and Answer Session

- Participants are muted
- Questions will be moderated at the end
- To ask a question, enter your comment into the chat box

## Feedback Form

- We value your input!
- The link to a feedback form will appear in the chat window

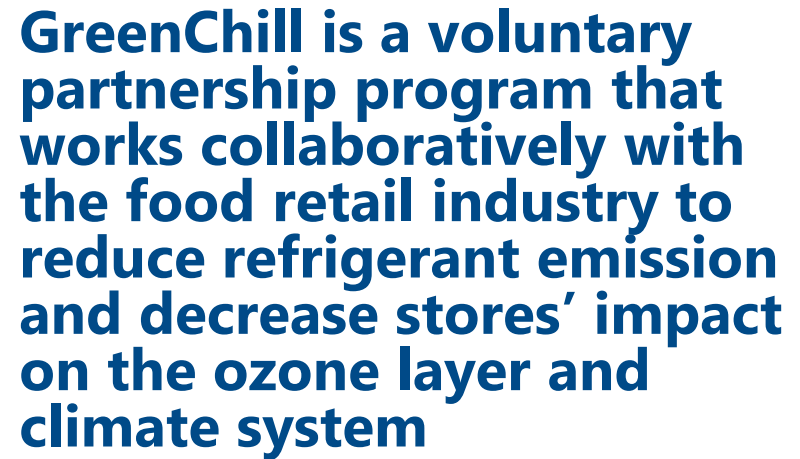


# Webinar Materials



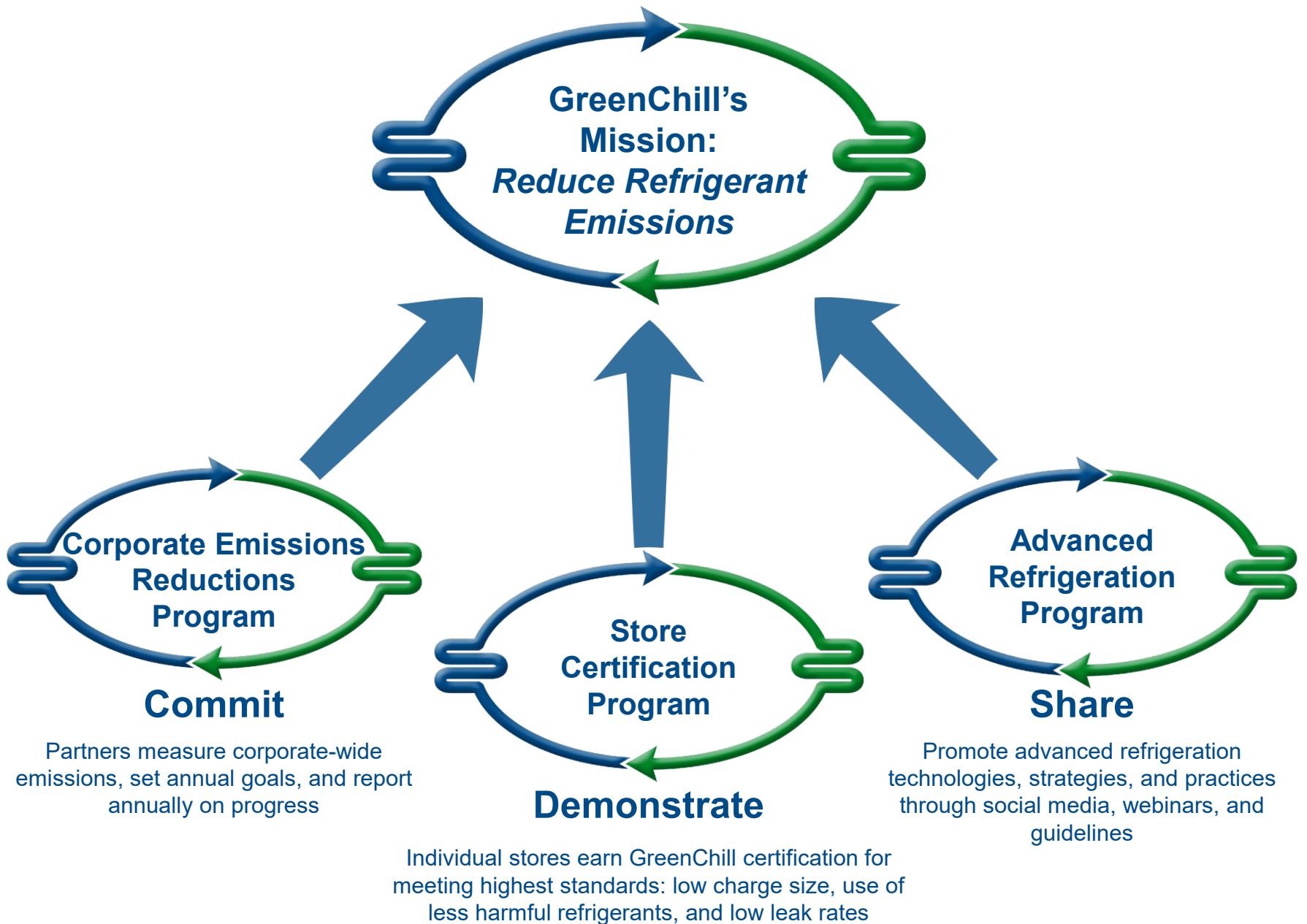
## Recording and Slides

- Webinar is being recorded
- Materials will be posted on the GreenChill website under Events and Webinars: [www.epa.gov/greenchill](http://www.epa.gov/greenchill)
- To receive notification when materials are posted email: [EPA-GreenChill@abtassoc.com](mailto:EPA-GreenChill@abtassoc.com)

The logo for the U.S. Environmental Protection Agency's GreenChill program. It features the text "U.S. ENVIRONMENTAL PROTECTION AGENCY" at the top and "ADVANCED REFRIGERATION PARTNERSHIP" at the bottom, both in a sans-serif font. In the center, the word "GREENCHILL" is prominently displayed in a large, bold, sans-serif font, with "GREEN" in green and "CHILL" in blue. The text is enclosed within a stylized oval frame composed of two curved arrows: a blue arrow on the left pointing right and a green arrow on the right pointing left, creating a circular flow around the central text.

- Lower refrigerant charge sizes and eliminate leaks
- Transition to environmentally friendlier refrigerants
- Adopt green refrigeration technologies and best environmental practices

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# Learn More



[www.linkedin.com/groups/1426947/](http://www.linkedin.com/groups/1426947/)

[www.epa.gov/greenchill](http://www.epa.gov/greenchill)

[GreenChill@epa.gov](mailto:GreenChill@epa.gov)



**Today's speakers...**

# Today's Presenter: Nick Cordasci



## **Nick Cordasci**

Refrigeration & Compliance Specialist I

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**Nick** has worked in Refrigerant Compliance for 17+ years. Working initially with Food Lion, and now with Retail Business Services he manages refrigerant tracking and compliance issues for several banners including Food Lion, Hannaford and Giant Martins who are all GreenChill partners. Nick earned the U.S. Environmental Protection Agency's Distinguished Partner Achievement Award in 2014.

# Today's Presenter: Sean Shropshire



## Sean Shropshire

Specialist II Energy Engineer

Phone: 704-310-4624

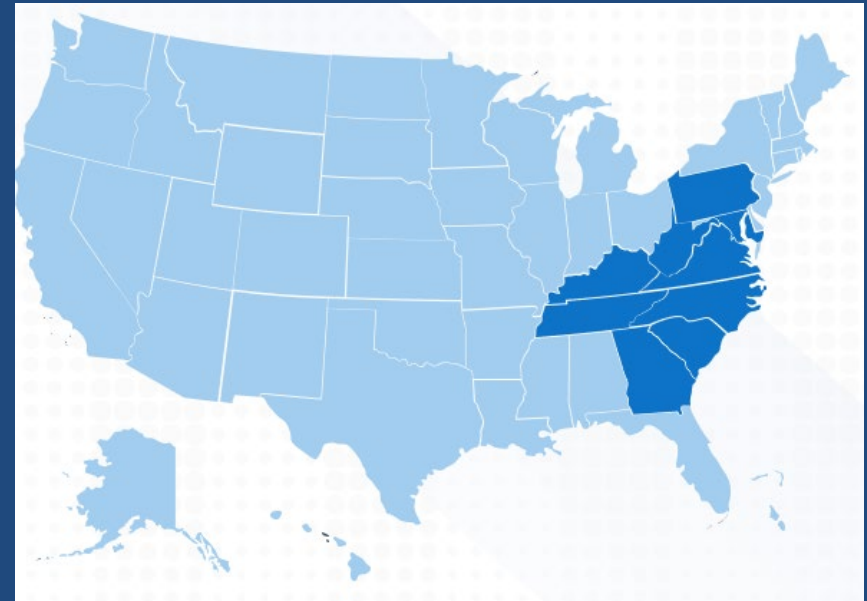
[Sean.Shropshire@Retailbusinessservices.com](mailto:Sean.Shropshire@Retailbusinessservices.com)



**Sean** has been and Energy Engineer for 7 years with 17 years of total experience in grocery retail. He works as a member of the Retail Business Services energy management team executing utility budgeting, energy efficiency projects, energy analysis, and ENERGY STAR portfolio for 2,000 stores within the Ahold Delhaize US brands of Food Lion, Hannaford, Stop and Shop, GIANT Company and Giant Food.



- Food Lion is a grocery retailer within Ahold Delhaize, one of the world's largest food retail groups.
- Food Lion's 1,000 stores represent the largest brand of Ahold Delhaize operating the US.
  - 77,000 associates
  - Operating in 10 states in the Mid-Atlantic and Southeast
  - Serve 10 million customers per week



# Food Lion's GreenChill Partnership



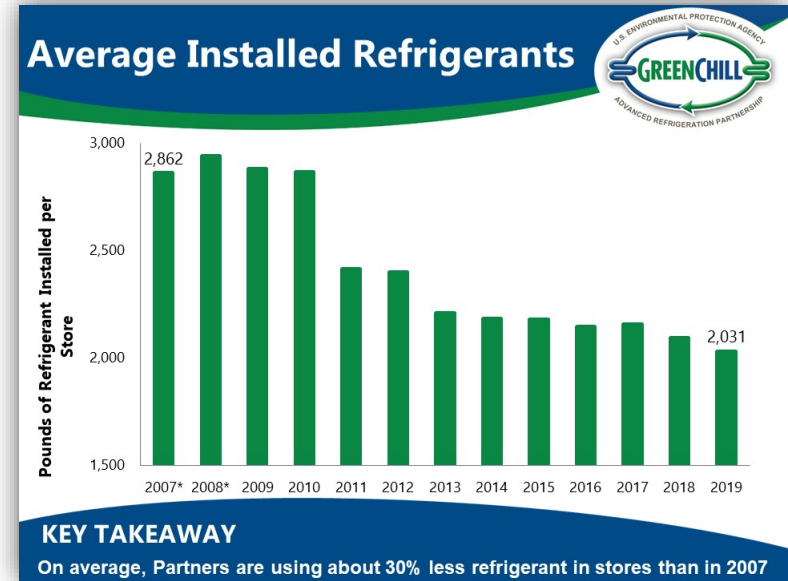
- Food Lion, LCC has been a GreenChill partner for 14 years. In 2007 Food Lion was among the first supermarket partners to join the GreenChill program.
- GreenChill is a voluntary EPA partnership for food retailers focused on reducing refrigerant emissions and lessening the impact on the ozone layer and climate change.
- At the time Food Lion was testing a medium temp, secondary coolant Glycol system and had just opened a store that was testing a low temp carbon dioxide (CO<sub>2</sub>) system. Both of which were Hillphoenix systems.
- Food Lion was already working to phase out its ozone depleting substance (ODS) systems and interested in testing Natural refrigerant systems. GreenChill was a perfect fit to help them achieve these goals.

## Becoming a GreenChill Partner

- Becoming a member is easy. You just need to be willing to work on reducing your refrigerant emissions and have no current Clean Air Act enforcement issues.
- Then you sign on to a partnership agreement and agree to work toward attaining the GreenChill goals.
- Three main goals:
  - Transition to environmentally friendlier refrigerants.
  - Reduce the amount of refrigerant used by stores and eliminate leaks.
  - Adopt green refrigeration technologies and environmental best practices.
- First step is to establish your baseline year by documenting your refrigerant stocks and emissions. You will report on these (confidentially to GreenChill) each year along with a brief action plan for the current year.

# Benefits of being a GreenChill Partner

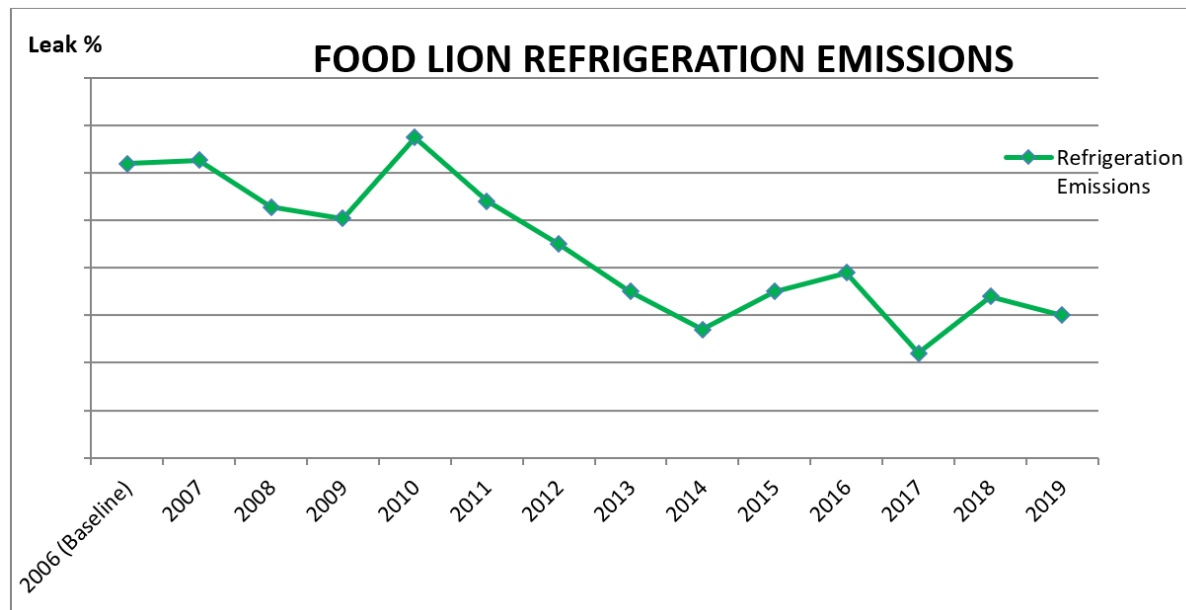
- After you submit your data each year you will receive an excellent report full of individual and group analyses.
- You also receive access to Best Practices guidelines and webinars, fact sheets, tools and calculators.
- Network building. Partnership provides contacts with other supermarkets, equipment manufacturing, service contractors and EPA.
- Earn recognition for your efforts. Store certification program. Earn EPA recognition for store certification and other environmental achievements at the annual ceremony. They can even help with press releases!
- Save money, meet sustainability goals and stay current with all regulation updates and changes.



# Achievements

Since joining GreenChill, Food Lion has:

- Reduced its refrigerant emissions by 19.75%
- Through our refrigerant conversion program, we have removed and replaced > 883,000 pounds of hydrochlorofluorocarbons (HCFCs)
- Achieved Gold and Platinum Certifications for our two CO<sub>2</sub> stores.



## How much energy does a Food Lion use?

- 35K Square Feet
- 126K kilowatt hour (kWh) per month
- 1.5M kWh per year



# Why did Food Lion need energy management?

- Supermarket retail is a low margin business at 2-3%
- Utility costs are a Top 3 expense in the organization and utility rates are only going to increase
- Energy Management was formed as an independent department in 1998 with the goal of reducing store energy consumption and researching new energy-efficient technologies to implement within our stores



## Where did Food Lion start?

Benchmarking – If you can't measure it, you can't manage it. Understanding your energy usage is paramount to tailoring an energy reduction strategy.

- ENERGY STAR – In 1998, Food Lion joined the EPA's ENERGY STAR program and began analyzing its stores via ENERGY STAR's Portfolio Manager
- Engie Partnership – Engie has been a partner with Food Lion since 2001. Processes over 3,000 utility bills per month and audits billing on a daily basis



# Partnering with ENERGY STAR

- ENERGY STAR Partner since 1998
- Supports our corporate sustainability and energy mission
- Sets performance goals for all stores to achieve certification and allows performance benchmarking



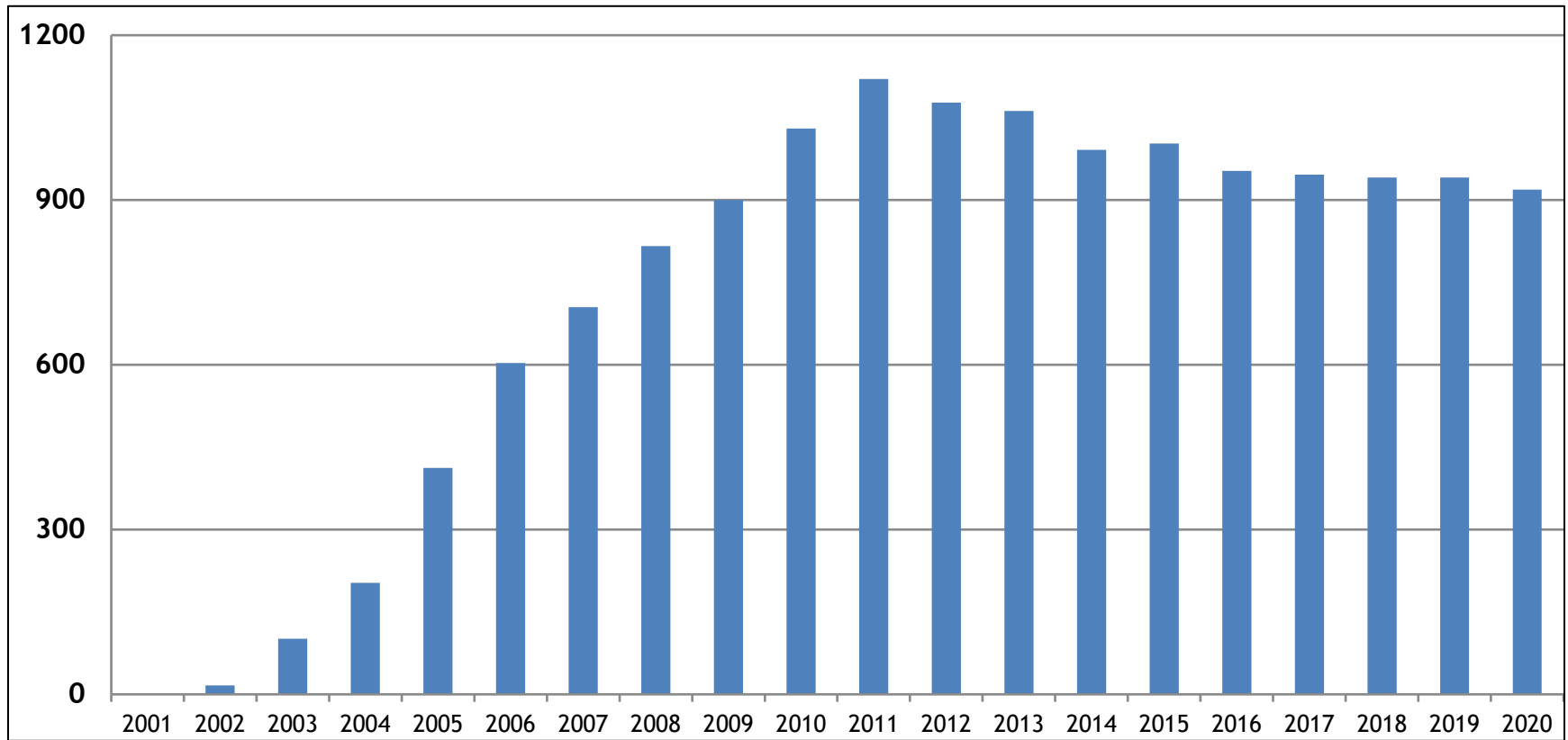
From left to right (Food Lion team accepts its 18<sup>th</sup> Partner of the Year Award at EPA annual awards ceremony in Washington, D.C.): Andrew Fernandez - Energy Manager, Ed Moore - Supervisor Maintenance, Jean Lupinacci - Chief ENERGY STAR Commercial and Industrial Branch, Wayne Rosa – Director of Maintenance

# ENERGY STAR Partner of the Year

- For 19 consecutive years, Food Lion has received Partner of the Year recognition
- For 17 consecutive years, recognized with Sustained Excellence distinction
- Longest running Partner of the Year of any U.S. company



# ENERGY STAR certifications



- 919 stores certified at least once since becoming an ENERGY STAR partner
- Food Lion has 36% of all ENERGY STAR certified U.S. supermarkets
- 89% of all Food Lion stores have been certified
- ENERGY STAR certified buildings use 35% less energy, generate 35% fewer greenhouse gas emissions, and cost \$0.54 less per square foot to operate

# Leveraging ENERGY Star tools

- Food Lion stores are uploaded to Portfolio Manager
- Portfolio manager allows for benchmarking utility usage in our stores to analyze trends and track consumption
- Reporting portal within portfolio manager allows for year over year usage comparisons and custom reporting allows for verification of impacts from energy efficiency projects

Metrics Summary			
Metric	May 2007 (Energy Baseline)	Nov 2020 (Energy Current)	Change
ENERGY STAR Score (1-100)	61	89	28.00 (45.90%)
Source EUI (kBtu/ft²)	502.4	319.1	-183.30 (-36.50%)
Site EUI (kBtu/ft²)	179.4	114.0	-65.40 (-36.50%)
Energy Cost (\$)	95,863.06	87,493.36	-8369.70 (-8.70%)
Total GHG Emissions Intensity (kgCO2e/ft²)	17.8	11.3	-6.50 (-36.50%)

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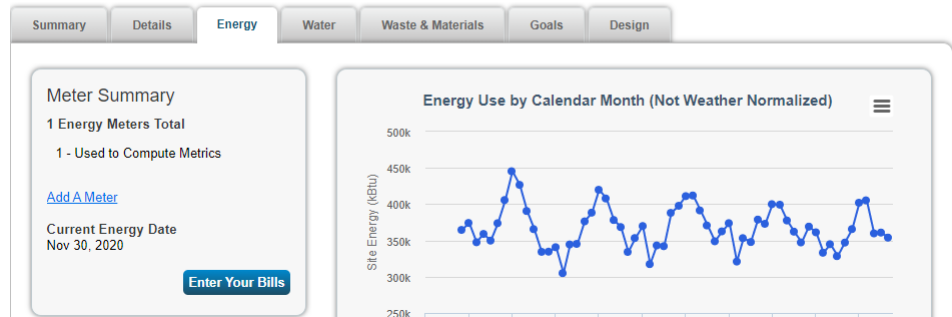
3750 North Hwy 81, Anderson, SC 29621 | [Map It](#)  
Portfolio Manager Property ID: 1391781  
Year Built: 2006  
[Edit](#)



ENERGY STAR Score (1-100)

Current Score: 89

Baseline Score: 61



# New equipment purchasing with ENERGY STAR

- Food Lion collaborates with equipment sourcing to analyze energy impact for new equipment
- Sourcing ENERGY STAR certified equipment is a priority and vote of confidence in any equipment being considered
- Through our Food Lion To Go program, ENERGY STAR certified equipment allows for utility rebates in installations with those funds being able to be re-invested back into the program

## ENERGY STAR Product Finder

Languages: [English](#) | [Français](#)

[Access to ENERGY STAR Data Sets and API](#)

Find all the information you need to start shopping for ENERGY STAR certified products, including product details, rebates, and retailers near you. Products that earn the ENERGY STAR label meet strict energy-efficiency specifications set by the U.S. EPA helping you save energy and money while protecting the environment.



Select a product category to begin. Looking for more information about how to save with ENERGY STAR products? [Learn More About Products](#)

[www.energystar.gov/productfinder/](http://www.energystar.gov/productfinder/)

## Find and Compare

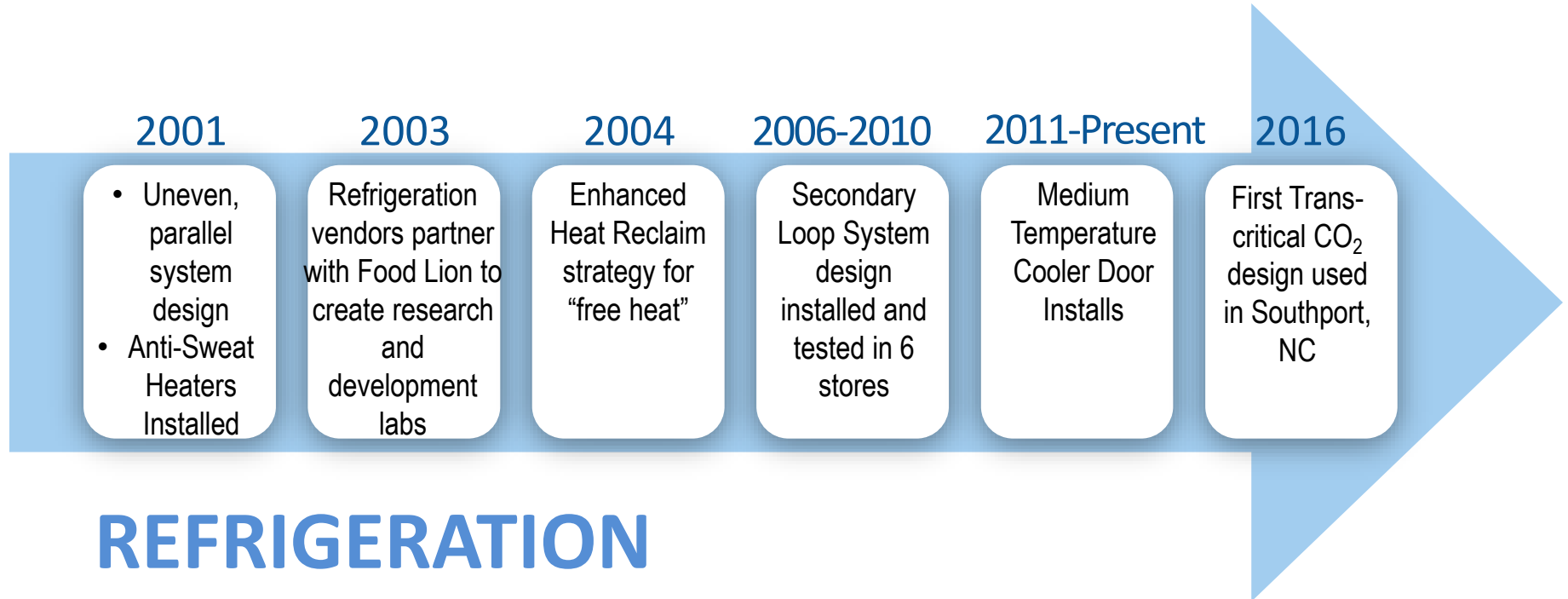
[Change Product](#)



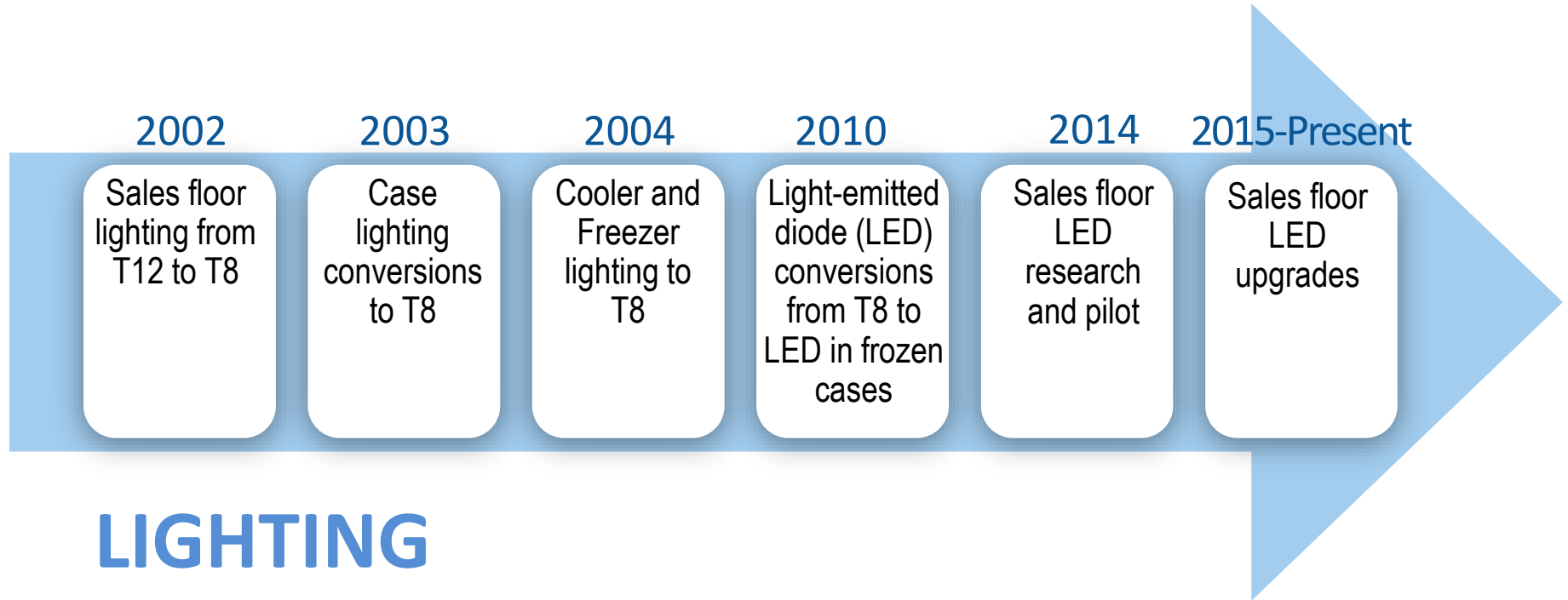
ENERGY STAR Certified  
**Commercial  
Ovens**

Visit the [Commercial Ovens](#) page for usage tips and buying guidelines.

# Energy saving measures and innovations

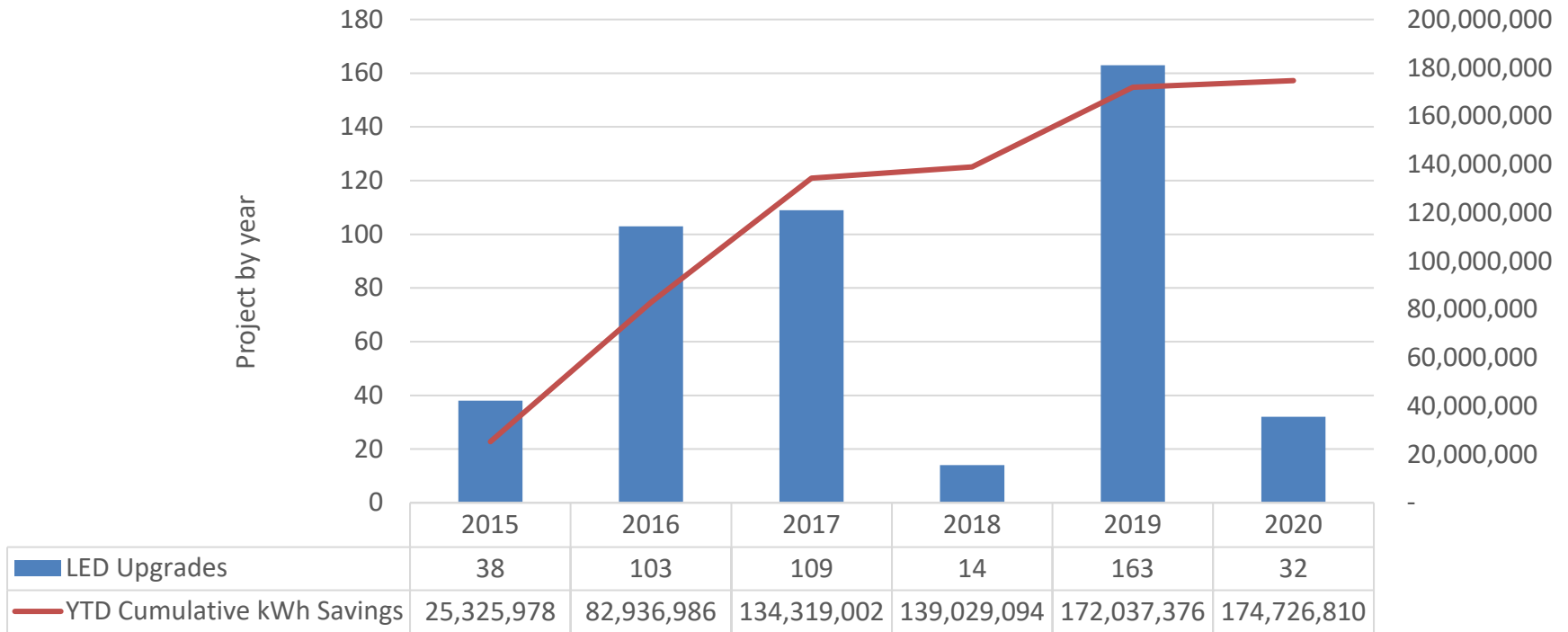


# Energy saving measures and innovations



# LED upgrades

LED Upgrades by Year vs Cumulative kWh Savings



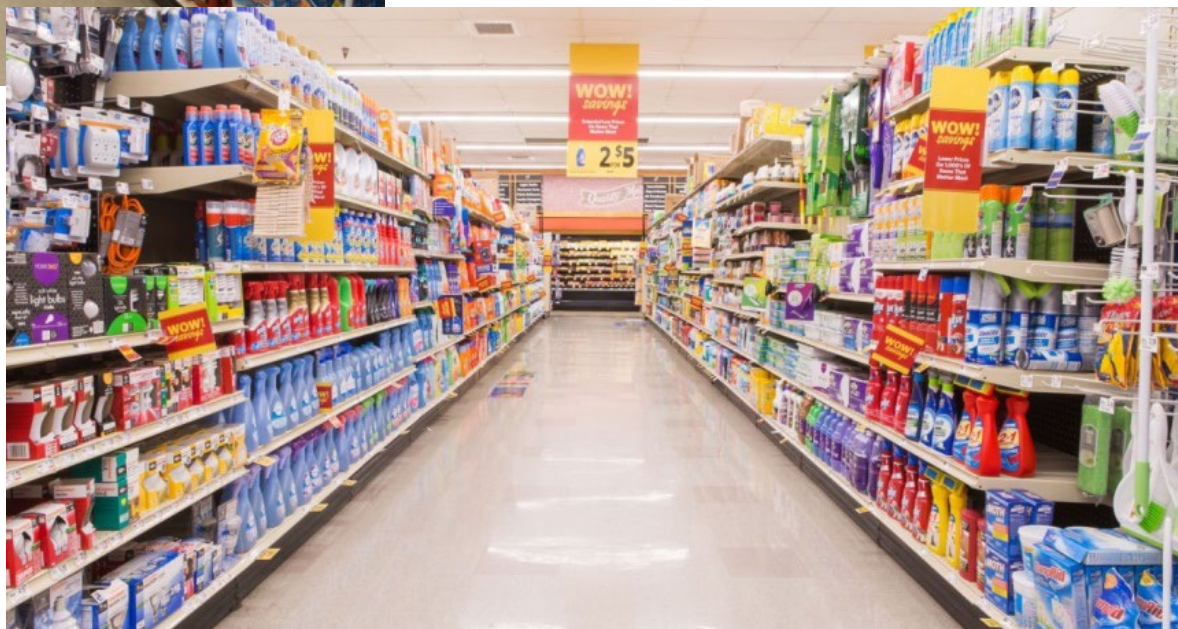
- Average annual savings of 145,000 kWh per project
- 174M kWh saved since 2015
- 459 total LED upgrades since 2015
- 44% of Food Lion stores upgraded to LED sales floor lighting

# LED upgrades



Before upgrade

After upgrade



# LED upgrades



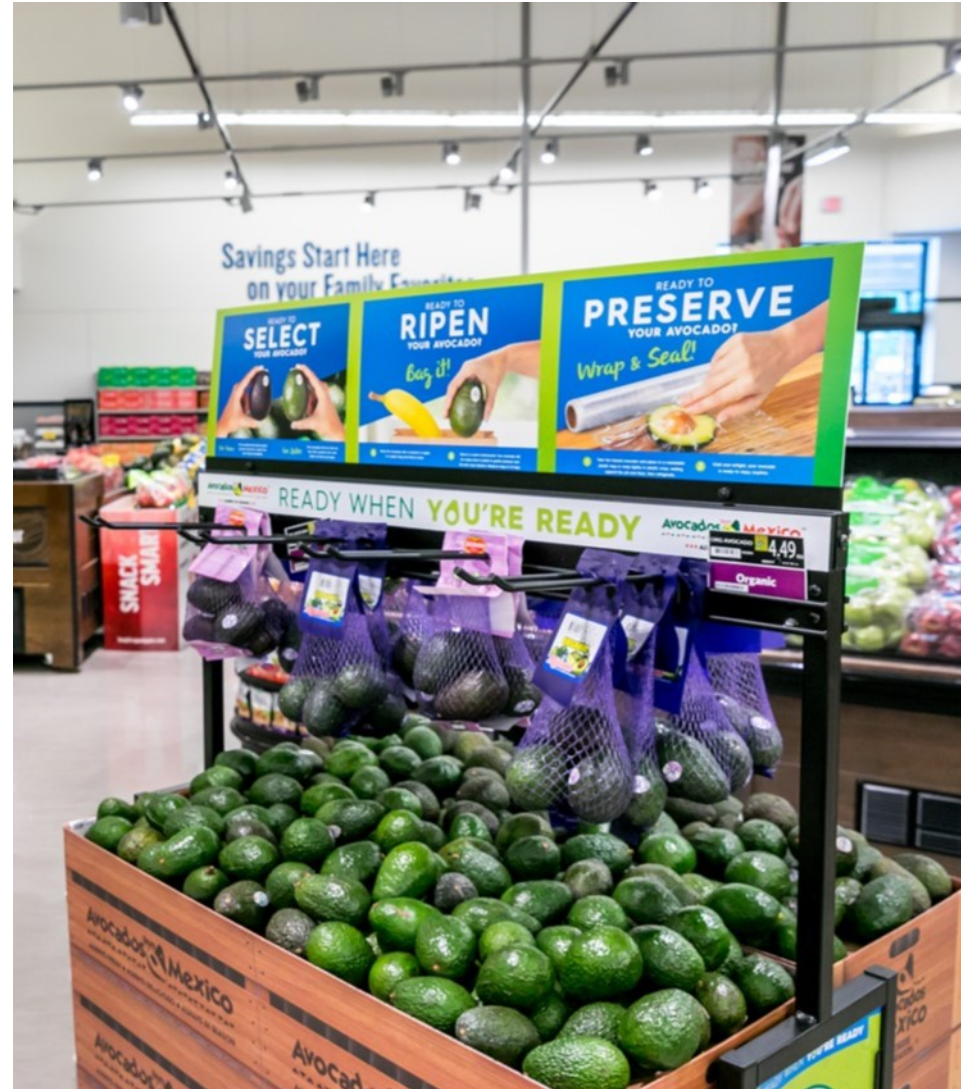
Before upgrade

After upgrade



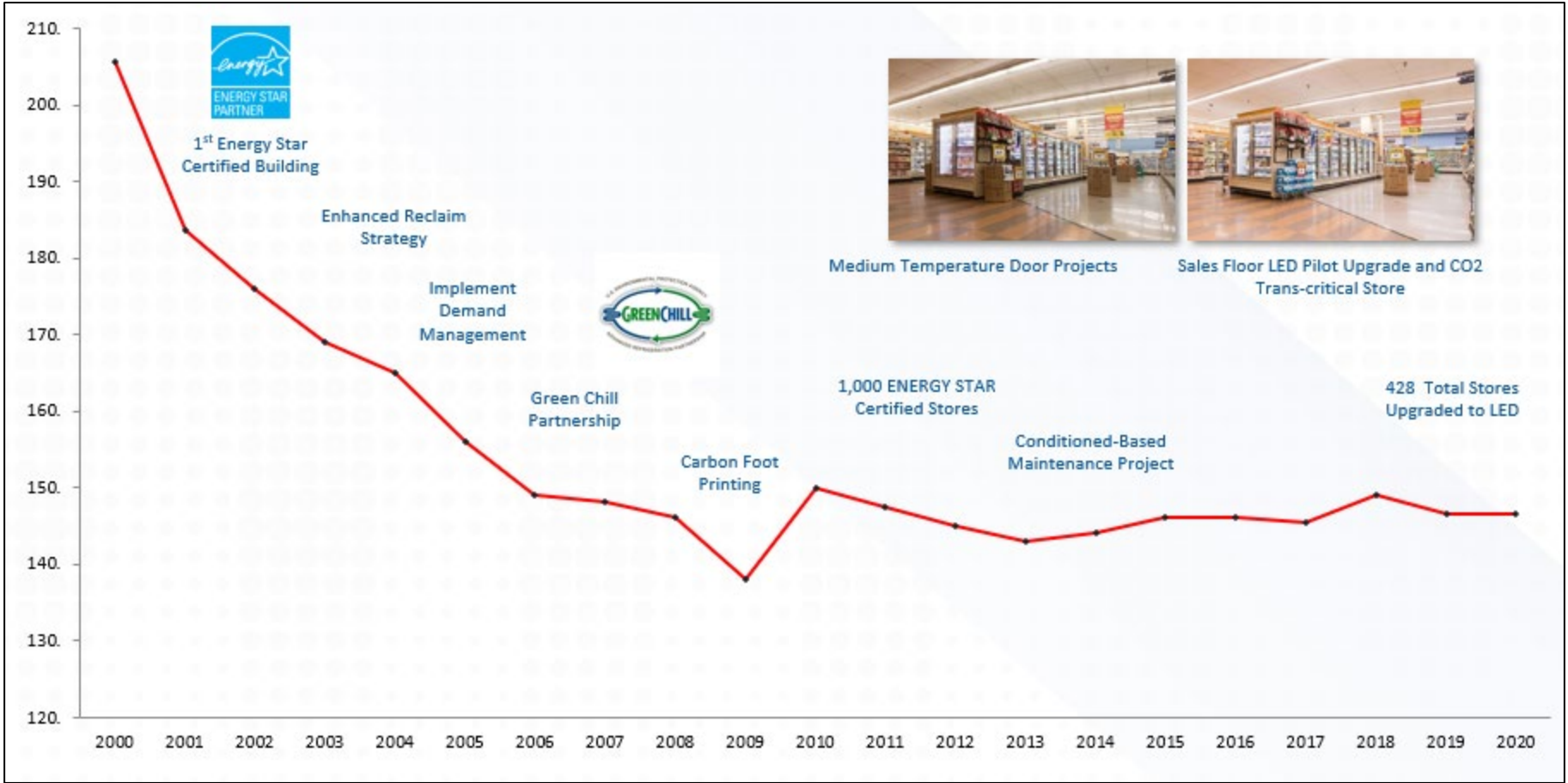
# Food Lion achievements in energy management

- kBTU per square foot reduction from 205.6 to 146.6 – a 28.6% decline
- Reduced carbon emissions by 593,103 metric tons
  - Equivalent to 128,136 passenger vehicles driven for one year
  - Equivalent to 22.5 million incandescent lamps switched to LED
  - Equivalent to 75.6 billion smartphones charged



kBTU = one thousand British Thermal Units

# Energy reduction timeline



# Social outreach





# Resources



# What is ENERGY STAR?



- Influential and trusted symbol of **energy efficiency**
- Available across **75+ product categories**
- Since 1992, a voluntary **partnership** among government, business, and consumers
- Products are independently certified to meet strict energy-efficiency guidelines set by the **U.S. EPA**
- **Utilities** offer **rebates** on ENERGY STAR certified equipment
- **Saves** end-users **energy, water, and money**
- Helps protect the **climate**



# ENERGY STAR Commercial Kitchen Equipment



ENERGY STAR certified commercial food service (CFS) products are available for nine categories:

- [Refrigerators and Freezers](#)\*
- [Ovens](#)\*
- Fryers
- Griddles
- Hot Food Holding Cabinets
- Steam Cookers
- Dishwashers
- Ice Makers
- Coffee Brewers

\*Active specification revisions

## Resources

ENERGY STAR Product Finder  
[www.energystar.gov/productfinder/](http://www.energystar.gov/productfinder/)

ENERGY STAR Rebate Finder  
[www.energystar.gov/rebate-finder](http://www.energystar.gov/rebate-finder)

ENERGY STAR Dealer Finder  
[www.energystar.gov/commercial-food-service-dealer-locator](http://www.energystar.gov/commercial-food-service-dealer-locator)

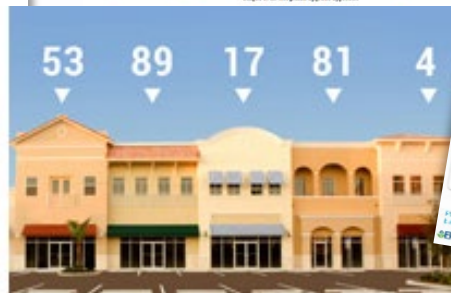
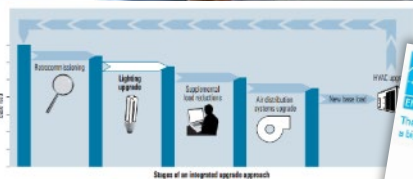
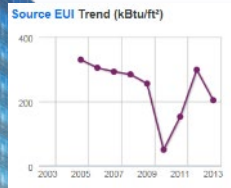
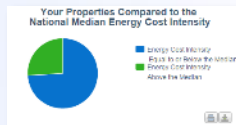
ENERGY STAR CFS Webpage  
[www.energystar.gov/cfs](http://www.energystar.gov/cfs)

Contact us at [cfs@energystar.gov](mailto:cfs@energystar.gov) for any questions or to receive program updates and quarterly newsletters.

# ENERGY STAR for Buildings and Plants

Voluntary EPA program that delivers environmental benefits and financial value through superior energy efficiency.

[www.energystar.gov/buildings](http://www.energystar.gov/buildings)



# And it's more than just a label...





2019 ENERGY STAR  
CERTIFIED BUILDING

## ENERGY STAR Certified Buildings

- More efficient than 75% of similar buildings
- Use 35% less energy (on average)
- Cause 35% fewer greenhouse gas emissions (on average)



ROUNDY'S®





# Contacts and Upcoming Webinars

## Food Lion Contacts

- Nick Cordasci, Food Lion  
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202.343.9556  
[Cappel.Kirsten@epa.gov](mailto:Cappel.Kirsten@epa.gov)

## Upcoming Webinars

Date	Webinar Topic
4/6/21	Understanding Supermarket Transcritical Carbon Dioxide Refrigeration Systems

Join our webinar invitation list or request today's slides: [EPA-GreenChill@abtassoc.com](mailto:EPA-GreenChill@abtassoc.com)

Access past webinar slides: [www.epa.gov/greenchill/events-and-webinars](http://www.epa.gov/greenchill/events-and-webinars)