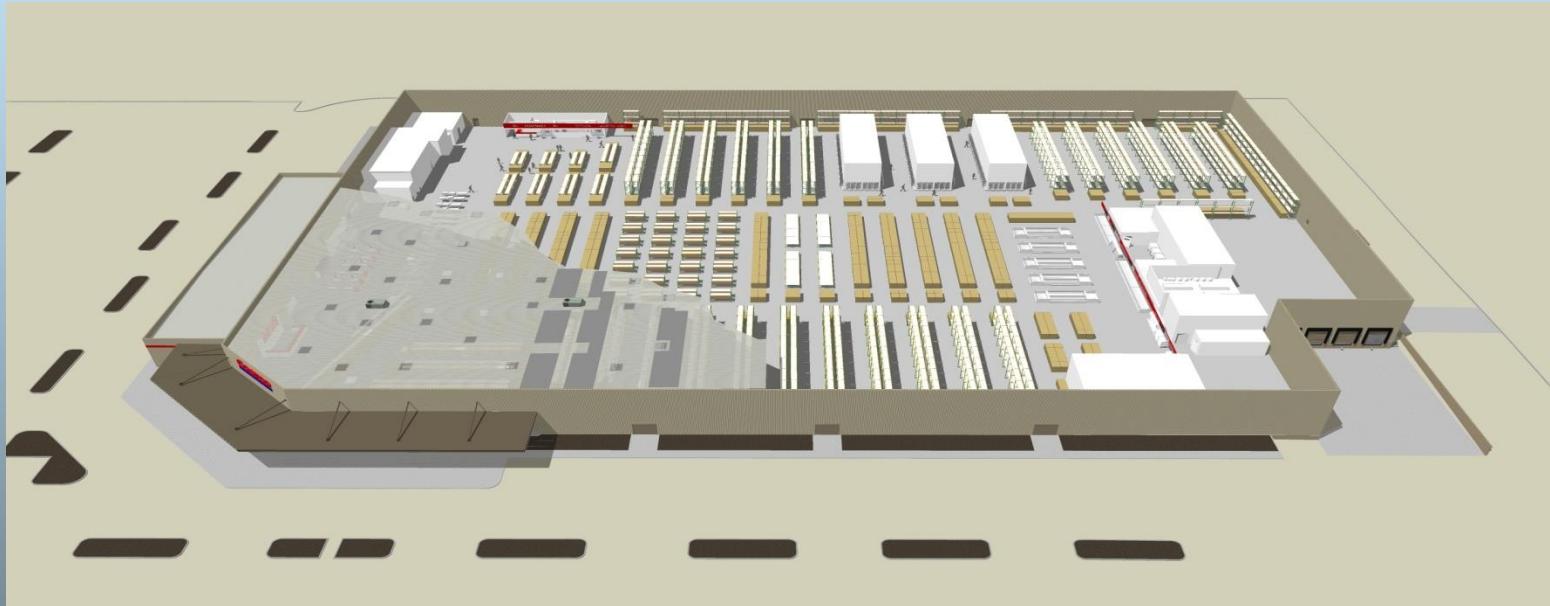


# Costco Wholesale Sustainability Report 2015



**Climate Change Statement**  
**Carbon Emissions Footprint**  
**Development & Site Design**  
**Energy Management**  
**Packaging Designs**  
**Recycling & Waste Stream Management**

## Climate Change Statement

**Costco Wholesale recognizes that the subject of climate change is significant for a number of its customers and its investors. It is also a risk factor for certain aspects of our business. As we have noted in our Form 10-K:**

*Factors associated with climate change could adversely affect our business.*

*We use natural gas, diesel fuel, gasoline, and electricity in our distribution and warehouse operations. Increased U.S. and foreign government and agency regulations to limit carbon dioxide and other greenhouse gas emissions may result in increased compliance costs and legislation or regulation affecting energy inputs that could materially affect our profitability.*

*In addition, climate change could affect our ability to procure needed commodities at costs and in quantities we currently experience.*

*We also sell a substantial amount of gasoline, the demand for which could be impacted by concerns about climate change and which also could face increased regulation.*

*Climate change may be associated with extreme weather conditions, such as more intense hurricanes, thunderstorms, tornadoes and snow or ice storms, as well as rising sea levels.*

*Extreme weather conditions increase our costs and damage resulting from extreme weather may not be fully insured.*

**Many scientists, economists and others have concluded that global climate change is a serious environmental, economic, and social challenge that warrants an equally serious response by governments and the private sector.**

**The UN-affiliated Intergovernmental Panel on Climate Change (IPCC) has recommended, and a number of countries (including the United States), through the Copenhagen Accord have agreed to attempt to limit global warming to 2 degrees Celsius.**

**To do so, the IPCC estimates that CO<sub>2</sub> emissions in the atmosphere should be stabilized at 450 parts per million (ppm) in 2050.**

**This stabilization requires that greenhouse gas (GHG) emissions be reduced by 85 percent compared to levels observed in 2000.**

**Costco's business model and many of its longstanding business practices align with these objectives.**

**The model is, the Company believes, inherently more carbon-efficient than other retailers.**

**The "bulk" emphasis of the Company's business means fewer trips by customers to serve their needs; and the Company's highly efficient depot (cross docking) distribution system minimizes the number of trips that are necessary to keeps its warehouses stocked as compared to multiple direct to location deliveries by many suppliers.**

**As a Company striving to bring merchandise to our customers at the lowest cost, we have since our inception focused our reducing expenses in our operations.**

**The use of electricity, for example, represents a significant expense for our warehouses that we are constantly looking for ways to reduce. We closely track energy usage as part of this effort. Purchased electricity is the greatest source of our carbon emissions, so reducing our energy usage directly contributes to reduced emissions.**

**Specific demonstrations of our efforts that reduce our greenhouse gas emissions and proof of our success in keeping the growth rates of these emissions below the growth of our business overall are detailed below.**

**Tracking and reporting of our GHG footprint are additional evidence of our commitment in this area.**

**Continuing to focus our expertise on reducing costs and improving efficiency is, we believe, the best way for us to reduce our impact on the environment and to seek to assure the values and choices to which our members have become accustomed.**



# Sustainability

- **Maintain our carbon footprint growth to less than our company sales growth**
- **Enhance our warehouse energy management systems**
- **Expand our packaging design initiatives**
- **Further develop our recycling and waste stream management systems**
- **Assure long-term availability of goods**

# SOURCES OF EMISSIONS

- Costco Wholesale reports Scope 1 and Scope 2 emissions to align with the GHG Protocol Corporate Accounting and Reporting Standard.
- We do not track Scope 3 emissions.
- **Scope 1 Direct Emissions** include all natural gas and propane provided to owned or controlled facilities used for heating or food processing and manufacturing. Included in direct emissions are diesel used by Costco's truck fleets, refrigerated trailers, yard haulers, propane to power mobile floor scrubbers, jet fuel for corporate jets and fugitive emissions from leakage of HFC refrigerants from refrigeration and air conditioning equipment.
- **Scope 2 Indirect Emissions** are for purchased electricity and are the largest component of GHG emissions.

# Costco 2009-2013 Comparisons

Total for all Sources	tCO2e	Annual Growth	tCO2e/Sales
tCO2e for CY'2009	1,521,968		2.3%
tCO2e for CY'2010	1,560,785	2.6%	2.2%
tCO2e for CY'2011	1,550,443	-0.7%	1.9%
tCO2e for CY'2012	1,549,519	-0.1%	1.7%
tCO2e for CY'2013	1,663,953	7.4%	1.8%

# Calendar Year 2013

Calendar Year 2013	tCO2e	%	Scope 1	391,848	26%
			Scope 2	1,157,671	74%
			Total	1,549,519	100%
Fugitive Emissions	153,371	9%			
Mobile Sources	63,107	4%			
Purchased Electricity	1,233,973	74%			
<u>Stationary Combustion</u>	<u>213,502</u>	<u>13%</u>	Countries Included:	United States & PR	
				Canada	
				United Kingdom	
				Australia	
Total	1,663,953	100%			

Total Sales in Covered Countries 2013: \$93,855,512

<u>tCO2e for CY' 2013</u>	<u>tCO2e Annual Growth</u>	<u>tCO2e /Sales</u>
All Sources 1,663,953	7.4%	1.8%

# Calendar Year 2012

Calendar Year 2012	tCO2e	%
<b>Fugitive Emissions</b>	<b>125,710</b>	<b>8%</b>
<b>Mobile Sources</b>	<b>64,853</b>	<b>4%</b>
<b>Purchased Electricity</b>	<b>1,157,671</b>	<b>75%</b>
<b>Stationary Combustion</b>	<b><u>201,285</u></b>	<b><u>13%</u></b>
<b>Total</b>	<b>1,549,519</b>	<b>100%</b>

<b>Scope 1</b>	<b>391,848</b>	<b>25%</b>
<b>Scope 2</b>	<b><u>1,157,671</u></b>	<b><u>75%</u></b>
<b>Total</b>	<b>1,549,519</b>	<b>100%</b>

<b>Countries Included:</b>	<b>United States &amp; PR</b>
	<b>Canada</b>
	<b>United Kingdom</b>
	<b>Australia</b>

Total Sales in Covered Countries 2012: \$88,774,761

tCO2e for CY' 2012      tCO2e Annual Growth      tCO2e /Sales

All Sources 1,549,519      - 00.1%      1.7%

# Calendar Year 2011

Calendar Year 2011	tCO2e	%
Fugitive Emissions	126,253	8%
Mobile Sources	69,557	5%
Purchased Electricity	1,168,576	75%
<u>Stationary Combustion</u>	<u>186,057</u>	<u>13%</u>
Total	1,550,443	100%

Scope 1	391,848	25%
Scope 2	1,168,576	75%
Total	1,550,443	100%
<b>Countries Included:</b>		<b>United States &amp; PR</b>
		Canada
		United Kingdom
		Australia

Total Sales in Covered Countries 2011: \$79,917668

tCO2e for CY' 2011      tCO2e Annual Growth      tCO2e /Sales

All Sources 1,550,443      -0.7%      1.9%

# Calendar Year 2010

Calendar Year 2010	tCO2e	%
<b>Fugitive Emissions</b>	<b>121,599</b>	<b>8%</b>
<b>Mobile Sources</b>	<b>69,421</b>	<b>4%</b>
<b>Purchased Electricity</b>	<b>1,197,983</b>	<b>77%</b>
<b>Stationary Combustion</b>	<b><u>171,782</u></b>	<b><u>11%</u></b>
<b>Total</b>	<b>1,560,785</b>	<b>100%</b>

<b>Scope 1</b>	<b>362,802</b>	<b>23%</b>
<b>Scope 2</b>	<b><u>1,197,983</u></b>	<b><u>77%</u></b>
<b>Total</b>		<b>100%</b>
<b>Countries Included:</b>		<b>United States &amp; PR</b>
		<b>Canada</b>
		<b>United Kingdom</b>
		<b>Australia</b>

Total Sales in Covered Countries 2010: \$ 72,592,843

<u>tCO2e for CY' 2010</u>	<u>tCO2e Annual Growth</u>	<u>tCO2e /Sales</u>
All Sources 1,560,785	2.6%	2.2%

# Calendar Year 2009

Calendar Year 2009	tCO2e	%
<b>Fugitive Emissions</b>	<b>136,192</b>	<b>9%</b>
<b>Mobile Sources</b>	<b>64,904</b>	<b>4%</b>
<b>Purchased Electricity</b>	<b>1,152,066</b>	<b>76%</b>
<b>Stationary Combustion</b>	<b><u>168,806</u></b>	<b><u>11%</u></b>
<b>Total</b>	<b>1,521,968</b>	<b>100%</b>

<b>Scope 1</b>	<b>369,902</b>	<b>24%</b>
<b>Scope 2</b>	<b><u>1,152,066</u></b>	<b><u>76%</u></b>
<b>Total</b>	<b>1,521,968</b>	<b>100%</b>
<b>Countries Included:</b>		<b>United States &amp; PR</b>
		<b>Canada</b>
		<b>United Kingdom</b>

Total Sales in Covered Countries 2009:	\$67,296,240	
<u>tCO2e for CY' 2009</u>	<u>tCO2e Annual Growth</u>	<u>tCO2e /Sales</u>
All Sources 1,521,968	----	2.3%



**Costco Development  
and Construction**

# SUSTAINABLE PRACTICES

## INNOVATION IN SITE DEVELOPMENT AND BUILDING DESIGN

### 1. Building Management System

- HVAC comfort systems are controlled by a computerized building management system to maximize efficiency and reduce costs.

### 2. Lighting Energy Management System

- Interior sales lighting is reduced from 100% to 66% to 33% to 0%, based on daylight contribution through the skylights.

### 3. Energy Efficient Lighting Design

- Utilize high-efficiency ballasts (electronic for fluorescent and high efficiency HID ballasts).
- Utilize high-efficiency light source (pulse start Metal Halide (HID) and bi-level switching for fluorescent fixtures).

### 4. Energy Efficient Transformers

- Utilize Square D Type EE transformers.

### 5. Building Construction

- Building envelopes are all insulated to meet the current energy code requirements or better.
- Use of exterior architectural panels made from recycled materials.
- Pre-engineered metal building is designed and made utilizing the least amount of steel so as to use the least amount of material.
- Non-VOC floor sealant covers 100% of concrete warehouse sales floor.

### 6. Mechanical Systems

- Utilize only high efficiency air conditioning units.
- Utilize variable speed motors on make-up air units and booster pumps.
- Gas water heaters are direct vent and 94% efficient or greater.
- Utilize reclaim tanks to capture heat released by refrigeration equipment to heat domestic water in lieu of rejecting heat to the outside.

### 7. Refrigeration Systems

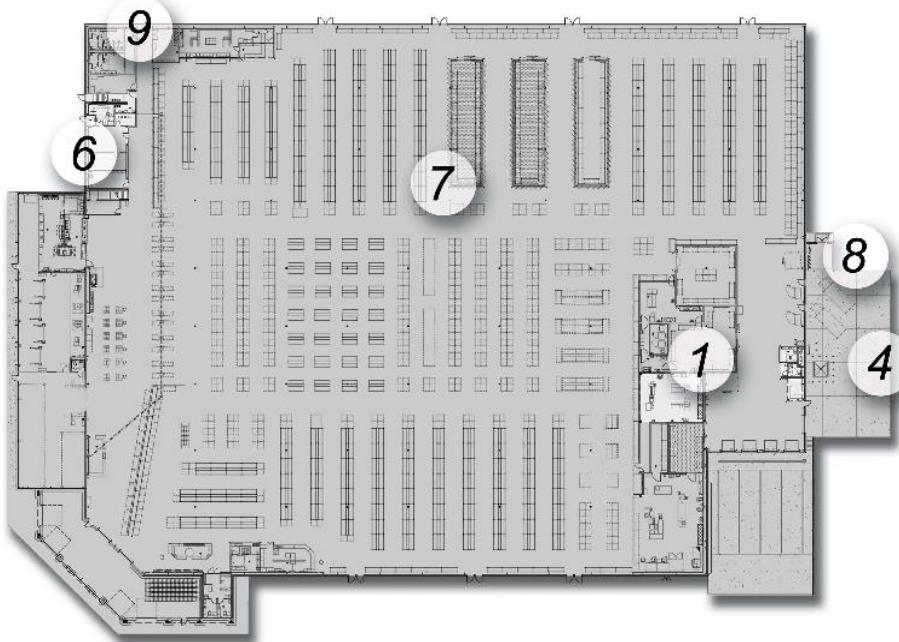
- Refrigeration is based upon atmosphere friendly cooling system in lieu of a freon based system.

### 8. Operations

- Extensive recycling/reuse program implemented for warehouse and office space.
- Avoid the use of plastic shopping bags.

### 9. Waste Water

- High efficiency restroom fixtures provide 40% water savings over fixtures currently required by code.



By utilizing the pre-engineered architectural metal panel building system for the Costco Wholesale warehouse, a more sustainable design will be achieved.



# LEED Leadership in Energy and Environmental Design



Manahawkin, NJ - Silver Certified

Pacoima, CA – Gold Certified

Washington DC – Silver Certified

Mount Vernon, VA – Green Certified

Woodmore, MD – Silver Certifiable

Coralville, Iowa



Property Rehabilitation

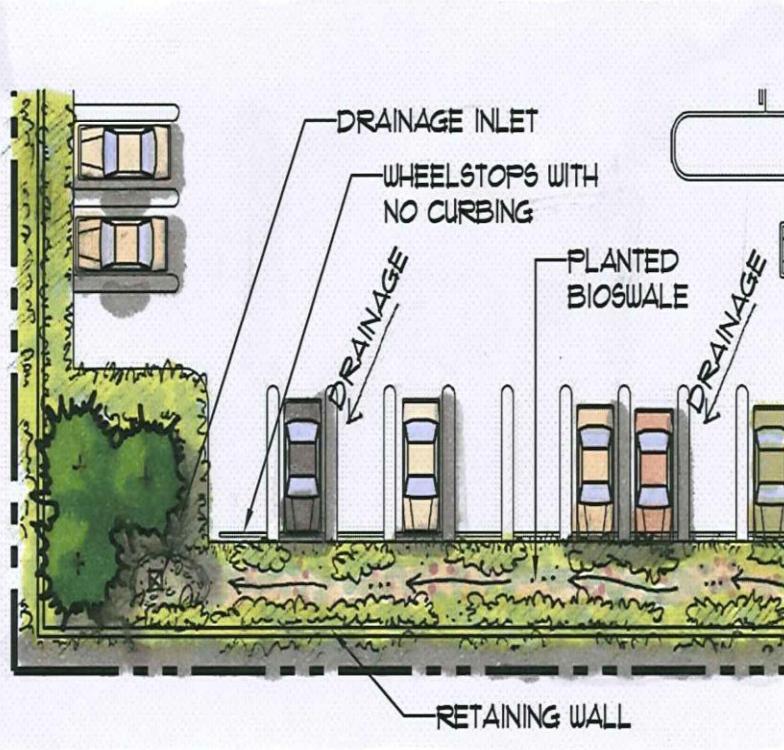
Queens Before Project



Queens After Project

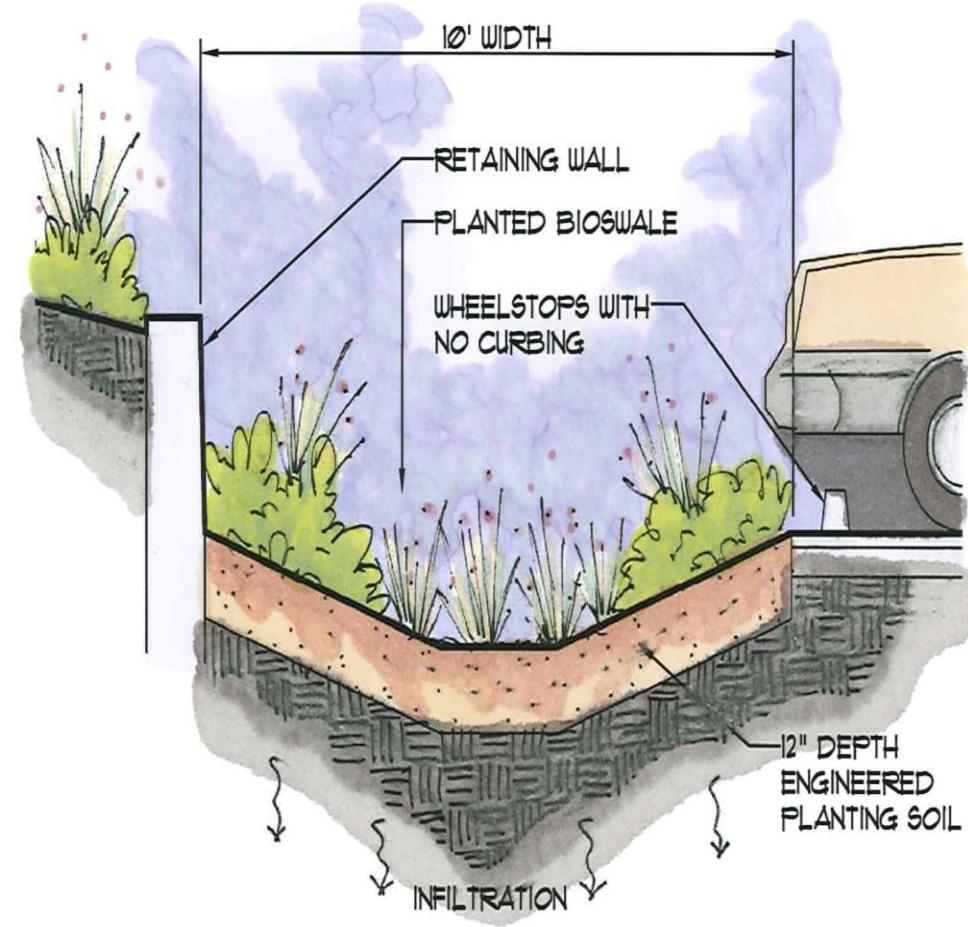


Property Rehabilitation



4A  
1'-20'-0"

BIOSWALE AT WALL BASE PLAN



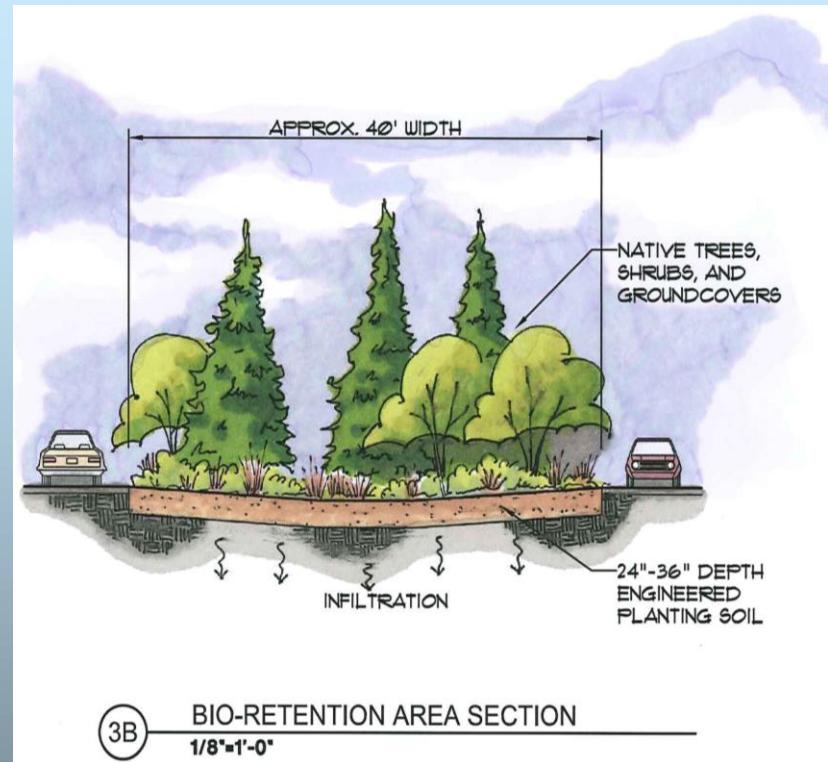
4B  
1/2'-1'-0"

BIOSWALE AT WALL BASE SECTION

# Bioswale Pollution Prevention



Issaquah, WA



# Bio-Retention Rain Garden



SWALE



RAIN GARDEN



LANDSCAPE ISLAND

# Stormwater Management

Wilmington, NC



Wilmington, NC



Pervious Sustainable Pavement

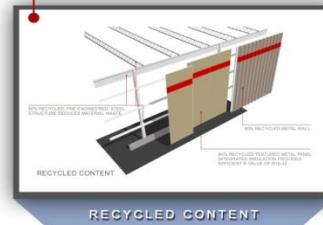
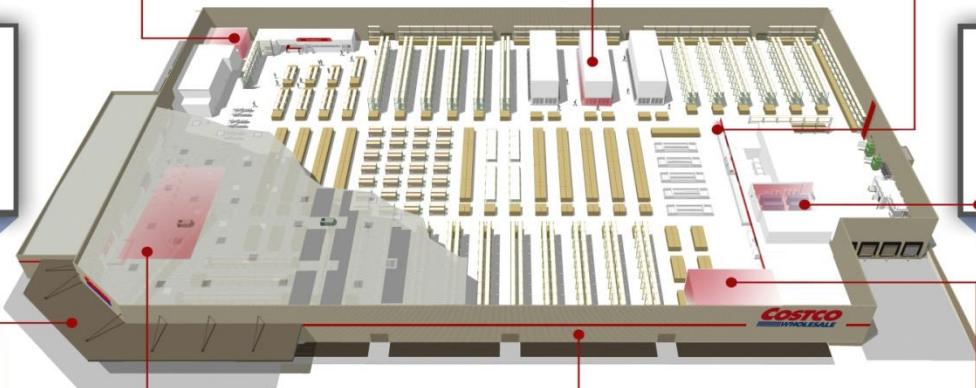
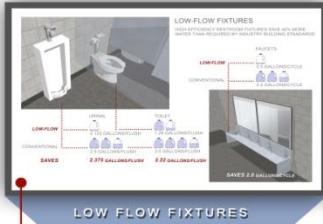


# Evaporative Emissions Recapture System

# Sustainable Energy Management



## SUSTAINABLE PRACTICES



ENERGY

PACKAGING

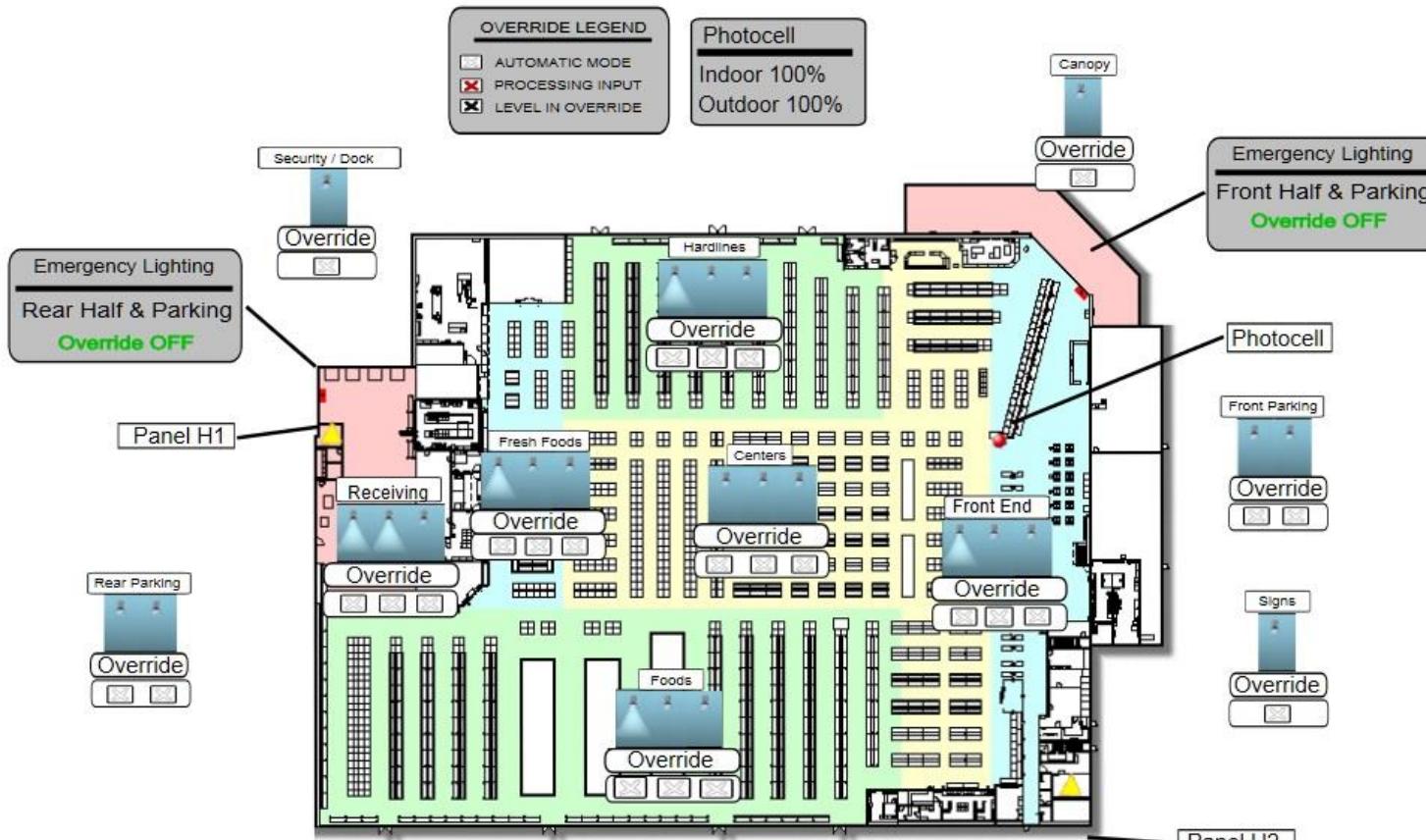
RECYCLING

BUILDING KILOWATTS 823

SYSTEM TIME

13:28

OUTSIDE ROOF TEMPERATURE 74°

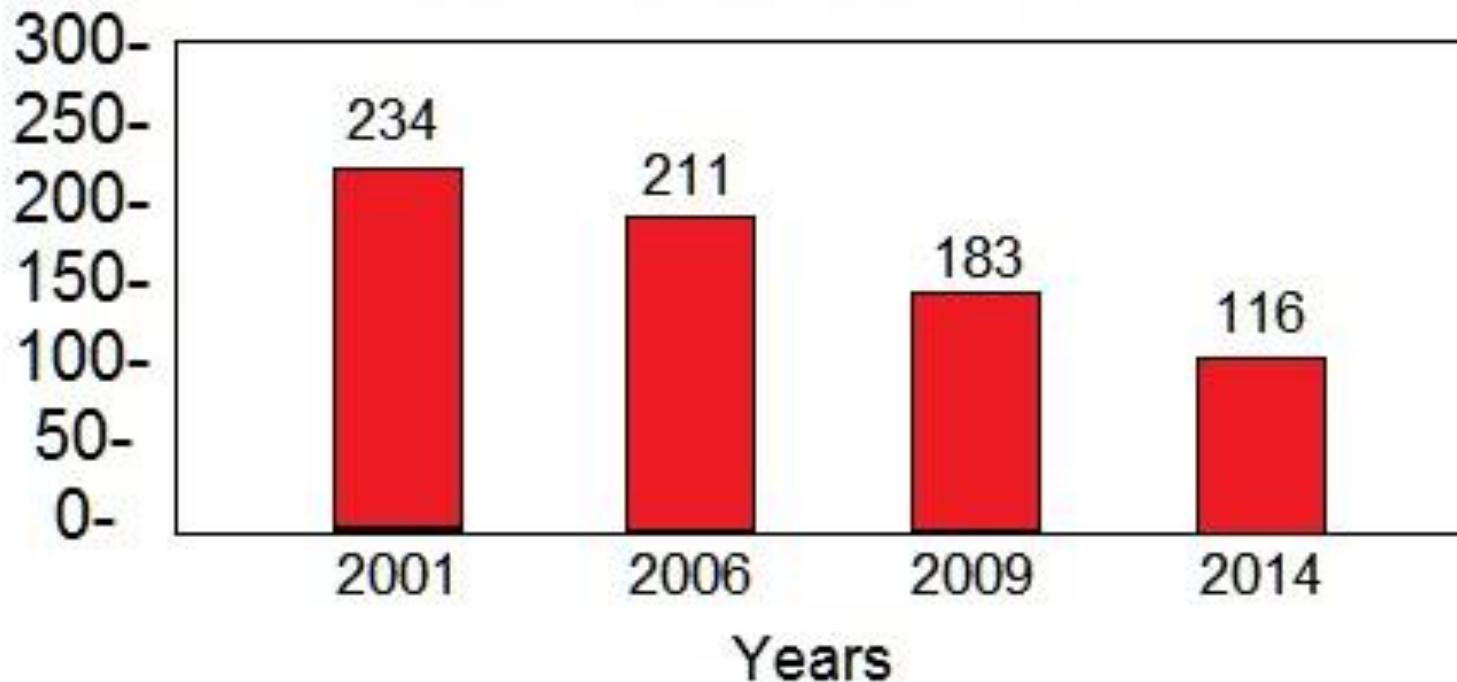


# Web Based Energy Management Systems

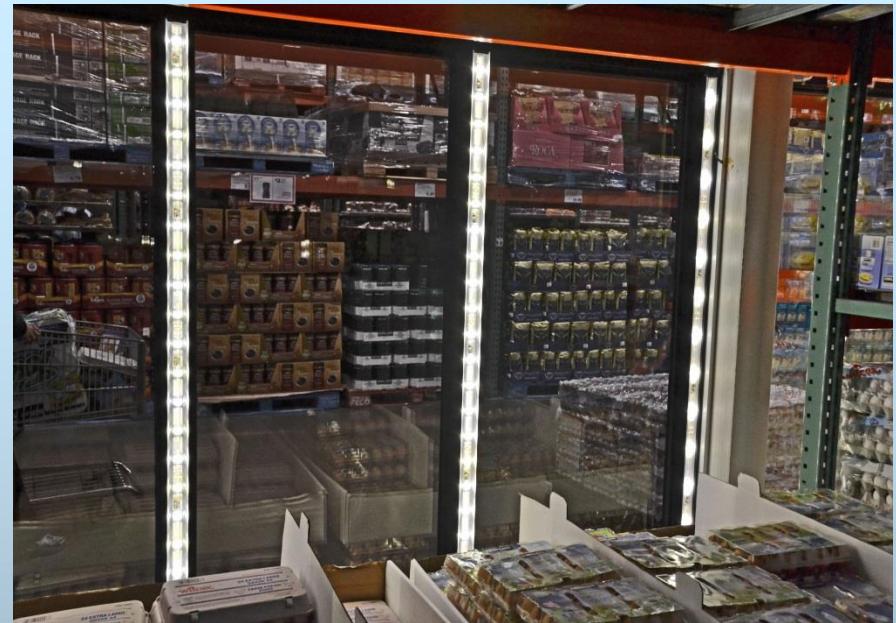


**400W to 210W HID**

## Total Sales Floor Lighting Load (KW) 50% Reduction Over 11 years



# Main Sales Lighting Load Reduction



# Cooler/Freezer LED



# Exterior Wall Pack

Old HID

New LED



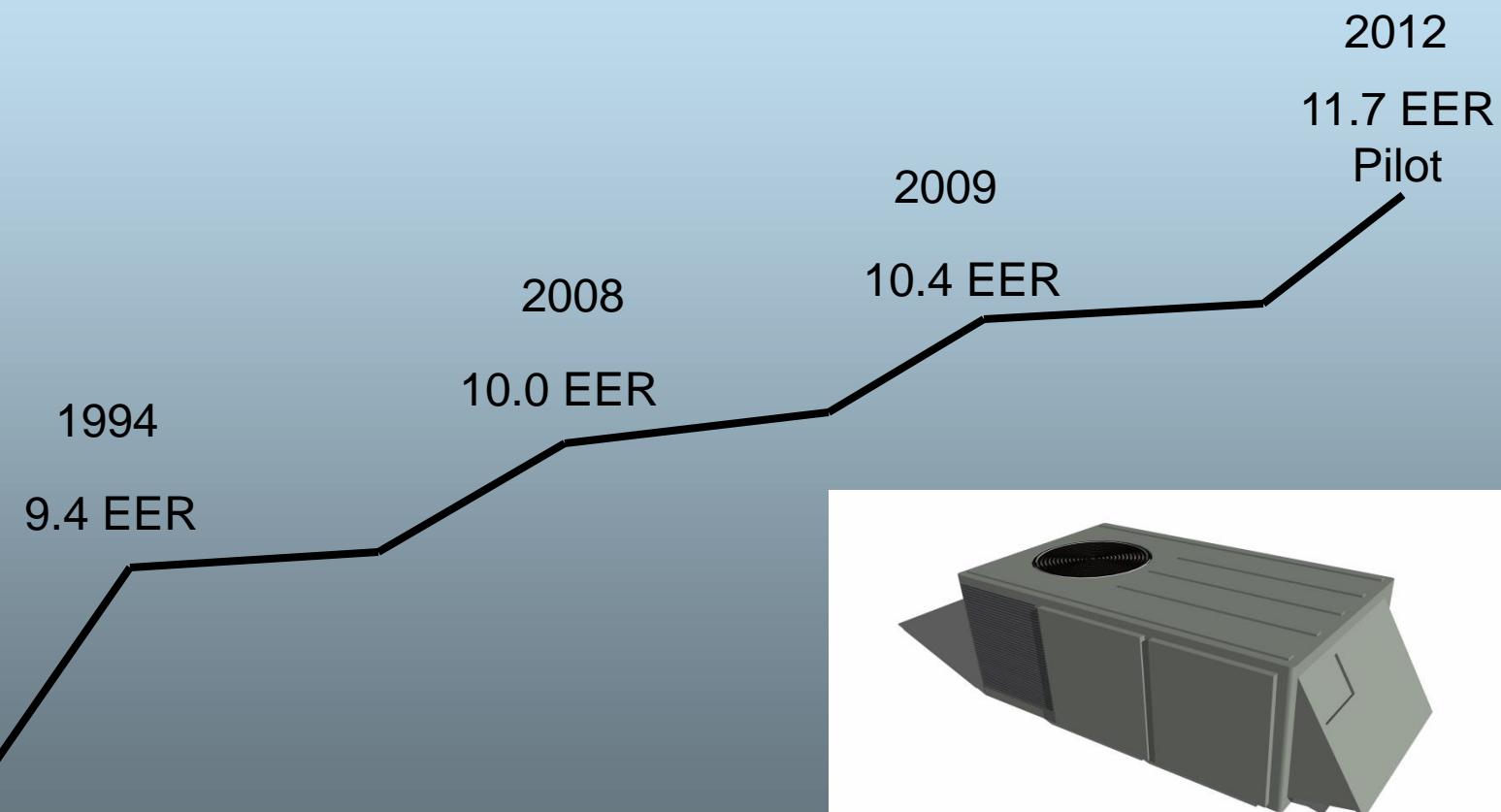
# Gas Station LED Canopy



# LED Entrance Canopy Light

# HVAC EER

25% increase in energy efficiency





Westlake Village, CA 562 KW (dc)

# Distribution Center Solar Array



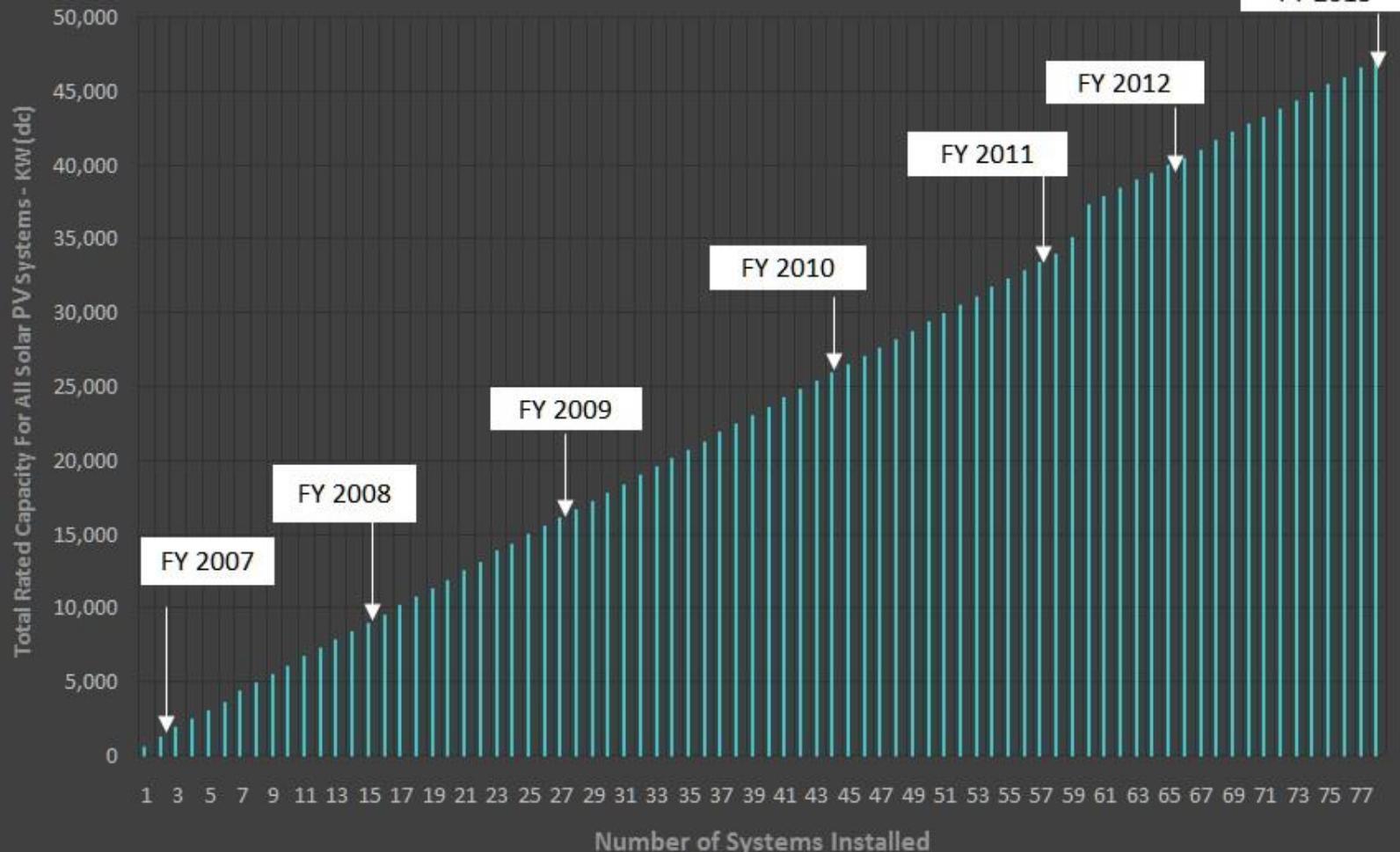
Mira Loma, CA 3,410 KW (dc)



586 KW (dc)

Solar Carport – Albuquerque, NM

**Costco Wholesale**  
**KW(dc) Total Solar PV Installed**

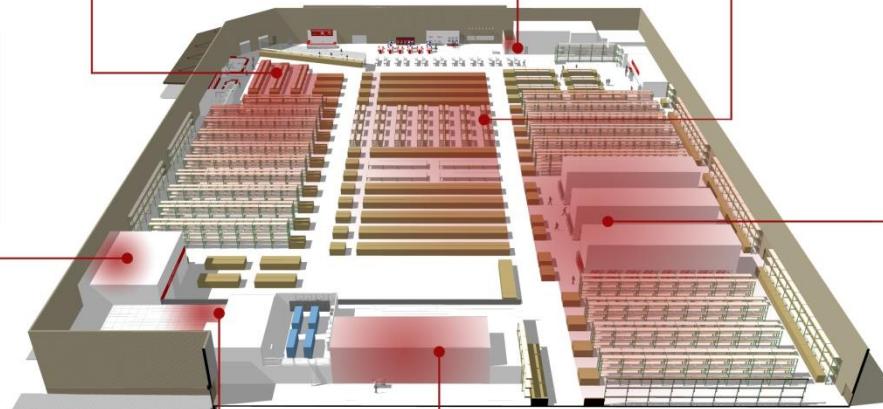


**Solar PV Installed 2007-2013**

# Sustainable Packaging Designs



## SUSTAINABLE PRACTICES



ENERGY

PACKAGING

RECYCLING

# Sustainable Packaging Design & Materials

**Costco's sustainable packaging goal is to ensure that our packaging is designed to:**

- Reduce the total amount of material needed
- Provide opportunities for re-use
- Be used for as long as possible, and
- Be easily and economically recycled

# Renewed, Reused and Recycled

## Mastering the use of Cardboard at Costco



**The same box is:**

- Used to ship merchandise from the vendor to Costco.
- Used to display merchandise on the sales floor.
- Given to members to carry their purchases home or is collected, compacted, baled and recycled by Costco.

# Reducing by Reviewing our Packaging



1990's packaging  
master cartons

2008  
Floor Ready Packaging



## SMART DISPLAY TACTICS





8,500 Pre-formed  
Packages

5,500 1 L Tetra Prisma  
Aseptic® Packages

Average Package Reduction 35%

## Tetra Packaging



# Packaging Reduction & Innovation

# Packaging Container Changes = Freight Savings



Changing the container shape from round to square:

Up to 50% more sell units per pallet

Approximately 600 fewer  
outbound depot trucks per year

## USING RECYCLED PLASTICS



- EXAMPLE ITEMS: BLUEBERRY AND GRAPE CLAMSHELLS, ORGAINC SPRING MIX, AND MIXED BABY GREENS
- PACKAGING PLANT WHERE FRUIT CLAMSHELLS ARE MADE USES 50% SOLAR POWER



- USING **70-100%** POST-CONSUMER RECYCLED PET\* PLASTIC, WE REQUEST SUPPLIERS USE NO PVC!\*

\*PET IS POLYETHYLENE TEREPHTHALATE AND HAS THE #1 RECYCLE SYMBOL

\*PVC IS POLYVINYL CHLORIDE AND HAS THE #3 RECYCLE SYMBOL

## CLAMSHELL PACKAGING REDUCTION





**15% Reduction in PET Resin  
16 oz. Clear Cup**

**5% Reduction in Polypropylene Resin  
Salad Container**



**Eliminated 1M Containers to landfill**



# Service Packaging Changes

# **Costco Packaging- US**

## Successes

- Expanded Buildings from 292,000 Sq. Ft. to 562,000 Sq. Ft.
  - ✓ San Diego 300,000 Sq. Ft.
  - ✓ Monroe 262,000 Sq. Ft.
- Increased Automation to Improve Efficiency
- Added Coffee Roasting Operations in Monroe, NJ

# San Diego Packaging – 300,000 Sq. Ft.



# San Diego Food Packaging



# San Diego Non-Food Packaging



# Monroe Coffee Roasting



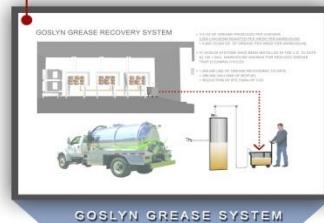
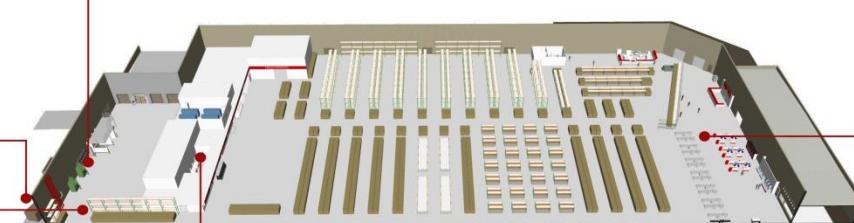
# Monroe Coffee Items



# Recycling and Waste Stream Management



## SUSTAINABLE PRACTICES



ENERGY

PACKAGING

RECYCLING



By Diverting 17,509 tons of post-recycled waste away from landfill disposal, Costco Wholesale has...



#### AVOIDED

Avoided 17,509 tons of CO<sub>2</sub> equivalent greenhouse gases.



#### REDUCED

Reduced the need for 4,377 tons of coal, or 735,378 gallons of fuel oil.



#### ACHIEVED

Achieved greenhouse gas offsets equal to pulling more than 3,648 cars off the road for a year.



#### GENERATED

Generated 9,629,950 kWh of renewable electricity. Enough to power 10,049 homes for a month.



NOTE: Based on national averages and assumes waste composition is similar to municipal solid waste (MSW).

# Waste to Energy Generation



# Food Court Recycling



# Member Waste Diversion Program



US Recycled 5,700 tons of  
Electronic Waste in FY13

## ORGANIC WASTE RECYCLING



ORGANIC WASTE IS SENT TO WORM FARMS  
AND COMMERCIAL COMPOST FACILITIES.

Costco US recycled 6,797 tons of  
Organic Waste in FY 2013

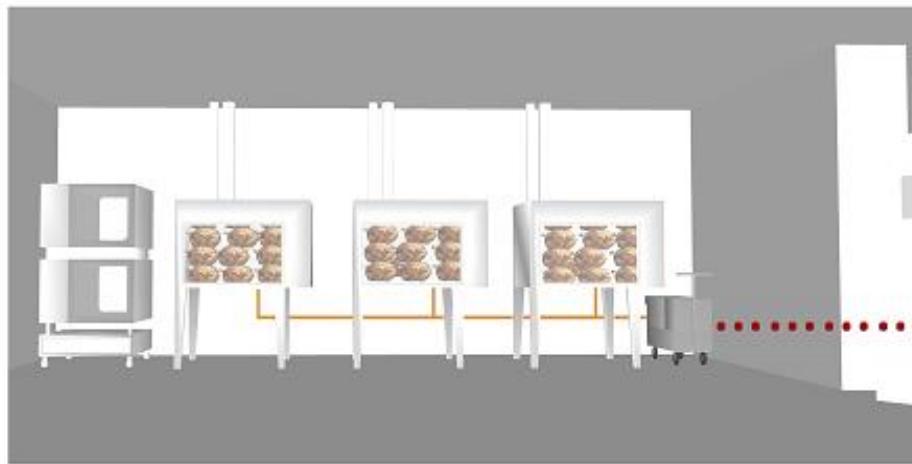
# Organic Waste Digester

Willingdon, BC  
recycled 38 tons  
of organic waste  
in CY 2013



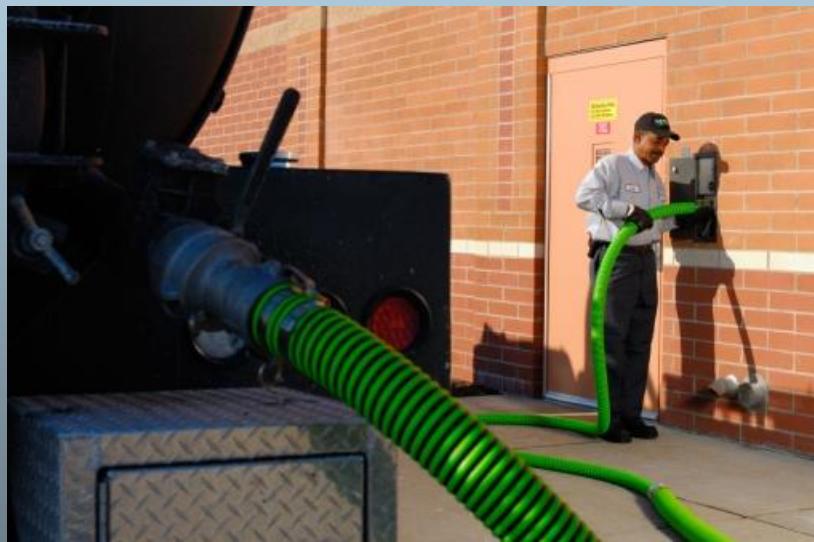
Costco CN recycled 536 tons of  
Organic Waste in CY 2012

## GOSLYN GREASE RECOVERY SYSTEM



- 3-5 OZ OF GREASE PRODUCED PER CHICKEN  
2,000 CHICKENS ROASTED PER WEEK PER WAREHOUSE  
= 6,000-10,000 OZ. OF GREASE PER WEEK PER WAREHOUSE
- 51 GOSLIN SYSTEMS HAVE BEEN INSTALLED IN THE U.S. TO DATE  
\$2,100 = AVG. WAREHOUSE SAVINGS FOR REDUCED GREASE TRAP CLEANING CYCLES
- 1,000,000 LBS OF GREASE RECOVERED TO DATE  
= 286,000 GALLONS OF BIOFUEL  
= REDUCTION OF 875,732lbs OF CO<sub>2</sub>





Costco US recycled 1,049 tons  
of Rotisserie Oil



January 2015