

# *Purchasing for Climate Protection*



**Alicia Culver**

**Executive Director, Responsible Purchasing Network**

**Webinar hosted by  
the Association of Climate Change Officers (ACCO)  
November 29, 2016**

# Responsible Purchasing Network

Nonprofit, ~200 members

- States
- Local governments
- Federal agencies
- Colleges and universities
- School districts
- Businesses
- Non-profits

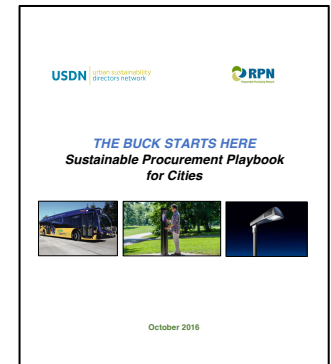


## **RPN Mission**

*“Promote and practice responsible purchasing by identifying best practices, developing effective purchasing tools, educating the market, and using our collective purchasing power to maximize environmental stewardship, protect human health, and support local and global sustainability.”*

# ***New TOOL: USDN-RPN Sustainable Procurement Playbook for Cities***

- **Chap. 1: Introduction/Executive Summary**
- **Chap. 2: Making the Business Case for Sustainable Procurement**
- **Chap. 3: Developing a Sustainable Procurement Policy**
- **Chap. 4: Building & Operating an Effective Sustainable Procurement Program**
- **Chap. 5: Setting Sustainable Procurement Priorities**
- **Chap. 6: Creating Contracts for Sustainable Goods and Services**
- **Chap. 7: Tracking & Reporting Sustainable Procurement Results**
- **Chap. 8: Sustainable Procurement of Electronics**
- **Chap. 9: Sustainable Procurement of Fleet Vehicles**
- **Chap. 10: Sustainable Procurement of Building Materials**



[http://usdn.org/uploads/cms/documents/rpn-usdn-sustainable-purchasing-playbook-101216\\_final.pdf](http://usdn.org/uploads/cms/documents/rpn-usdn-sustainable-purchasing-playbook-101216_final.pdf)

## Polling Question #1

**Has your jurisdiction/organization adopted a policy committing to the purchase of energy-efficient and other climate-friendly products?**



**VOTE NOW**




# Sample Energy-Efficient Procurement Policies

- **Energy-Efficient Procurement Policies**

Because energy-efficient products have demonstrated cost savings in a short time frame – particularly when utility rebates are factored in – many municipal procurement and green building policies promote their use. Some cities and counties have adopted stand-alone energy-efficient purchasing policies as a way to focus attention on the procurement of energy-efficient products. Below are two examples

-  New York City adopted an energy-efficient procurement law that requires: *Any faucet, showerhead, toilet, urinal, fluorescent tube lamp, fluorescent ballast, industrial HID luminaire, downlight luminaire, fluorescent luminaire or compact fluorescent lamp that is purchased or leased by any agency for which the federal energy management program of the United States department of energy has issued product energy efficiency recommendations shall achieve no less energy efficiency...than the minimum recommended in such recommendations.*<sup>47</sup>
-  Cambridge, Massachusetts adopted an *Energy Star Purchasing Policy* requiring all new equipment purchased for City operations to be ENERGY STAR-certified or meet equivalent standards: “As the City replaces older equipment, new Energy Star equipment will reduce the energy load in City buildings.”<sup>48</sup>

Other cities have incorporated procurement requirements into a broader energy-efficiency policy for their jurisdiction.  Houston, Texas’ *City Energy Efficiency Policy*, states: “All equipment, appliance and computer purchases should be Energy Star rated, when possible.”<sup>49</sup>

## Polling Question #2

**What does your jurisdiction or organization need to take the next step in climate-friendly purchasing?**

**VOTE NOW**



# Step 1: Identify Climate Unfriendly Products



- **Energy-inefficient products**
- **Products that emit potent GHGs**
- **Short-lived products (disposables)**
- **Products that travel far**
  - Especially if heavy or bulky
  - Especially if traveling by plane



# High-Impact Categories for Climate Protection

- The *Playbook* highlights sustainable procurement strategies for three high-impact product categories
- Categories were chosen
  - IT/Electronics
  - Vehicles
  - Building materials





# ENERGY STAR-Certified Office Equipment



[Enterprise Servers](#)

[FIND PRODUCTS](#)



[Computers](#)

[FIND PRODUCTS](#)



[Voice over Internet Protocol \(VoIP\) Phones](#)

[FIND PRODUCTS](#)



[Uninterruptible Power Supplies](#)

[FIND PRODUCTS](#)



[Data Center Storage](#)

[FIND PRODUCTS](#)



[Displays](#)

[FIND PRODUCTS](#) [MOST EFFICIENT](#)



[Imaging Equipment](#)

[FIND PRODUCTS](#)



[Small Network Equipment](#)

[FIND PRODUCTS](#)



**Most Efficient  
2016**

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



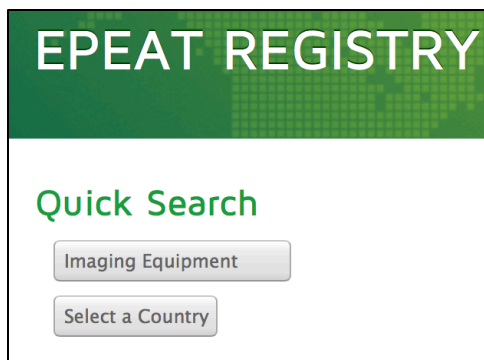
**Televisions**



**Computer Monitors**

# Green Rating System for Electronics

- Require products to be on EPEAT Registry (Electronic Products Environmental Assessment Tool)
- Yields multiple environmental benefits: *energy efficiency, toxics reduction, and resource efficiency*



[www.epeat.net](http://www.epeat.net)



# MFDs Can Reduce Energy Consumption

- Replacing desktop printers, copiers, fax machines and scanners with networked multi-function devices (MFDs) can save energy by reducing the number of machines needed to perform multiple tasks.
- Order with energy management and networking enabled

printer



scanner



copier



fax



vs.

MFD/all-in-one



*A single ENERGY STAR multi-function device (MFD) will prevent ~320 pounds of CO2 over 6 years.*

# Eliminating Desktop Computers Saves \$





## **CASE STUDY: Alameda County, CA** *Desktop Printer Reduction Project*

- 70% reduction in desktop printers
- \$7,000 in annual cost savings
  - ✓ Energy savings from eliminating redundant equipment
  - ✓ Lower ink/toner costs
  - ✓ Avoided maintenance costs
- Additional cost savings from its Paperless Express Project, which was supported by use of MFDs.



# Track and Report Environmental & Economic Benefits of Purchasing Green IT

## Benefits Realized from Office Electronics Green Spend

	Energy Savings	Greenhouse Gas Emission Reduction	Electricity Cost Savings
	<b>Benefits from EPEAT Desktop Purchases, FY 2010-14</b> 2.52 million kWh	1,523.0 metric tons CO2 Equivalent	\$256,345
	<b>Benefits from EPEAT Monitor Purchases, FY 2010-14</b> 0.17 million kWh	109.0 metric tons CO2 Equivalent	\$17,788
	<b>Benefits from EPEAT Notebook Purchases, FY 2010-14</b> 0.07 million kWh	42.8 metric tons CO2 Equivalent	\$6,885
	<b>Benefits from ENERGY STAR Printer &amp; MFD Purchases, FY 2013-14</b> 0.16 million kWh		\$12,237

For Computers, Monitors, Notebooks: Benefits calculated using the EPA's Electronics Environmental Benefits Calculator (EEBC) version 3.1. Benefits represent those expected over the lifetime of the product.

For MFDs and Printers: Benefits calculated using the ENERGY STAR Savings Calculator for Office Equipment, updated December 2014. Benefits represent those expected over the lifetime of the product. FY 2013-14 was the first year spend data was calculated for MFDs and printers.



### BENEFITS

**16.5**

Megawatt-hours of electricity could be saved each year if the District purchases 100 ENERGY STAR color laser printers

This is equivalent to **\$2,000** in annual electricity cost savings

Duplex printing can save **3,000 – 5,000** sheets of paper per office worker per year

# Cut Paper Consumption

## CASE STUDY

### King County, WA cut paper usage >20%

- Set 20% paper reduction goal (2013 vs. 2010)
- Achieved 22% reduction
- Established duplex printing standard
- Implemented paperless office practices
- All copy paper has 30-100% PCRC
- Cost savings = ~\$210,000
- GHG reduction – 225 MT-CO<sub>2</sub>e

#### Copy Paper Reduction

##### COPY PAPER PURCHASES



Measure: Total cases of copy paper purchased.

Target: Compared to 2010 levels, reduce copy paper usage by 20 percent by 2013, 30 percent by 2016, and by at least 35 percent by 2020.

Current Status: The County is 22 percent below 2010 levels in copy paper usage.

GHG Emissions Reduction: 225 MTCO<sub>2</sub>e reduction for 2014 compared to the 2010 baseline

# Track Environmental Benefits of Using Recycled Copy Paper (or Reducing Use)

**Lifecycle Environmental Impact**  
The following is a break down of the environmental impact of your choices for different grades of paper.

Recalculate	Baseline Paper	100% Recycled Paper
Paper	Uncoated Freesheet (e.g. c)	Uncoated Freesheet (e.g. c)
Quantity per year	1000 Pounds	1000 Pounds
% Postconsumer	0	100
Wood Use	2 tons	0 tons 2 tons less
Net Energy	15 million BTU's	11 million BTU's 4 million BTU's less
Greenhouse Gases	2,941 lbs CO <sub>2</sub> equiv.	1,711 lbs CO <sub>2</sub> equiv. 1,230 lbs CO <sub>2</sub> equiv. less
Wastewater	11,109 gallons	5,186 gallons 5,924 gallons less
Solid Waste	954 pounds	595 pounds 360 pounds less



 Environmental Paper Network

 Paper Calculator

<http://c.environmentalpaper.org/home>

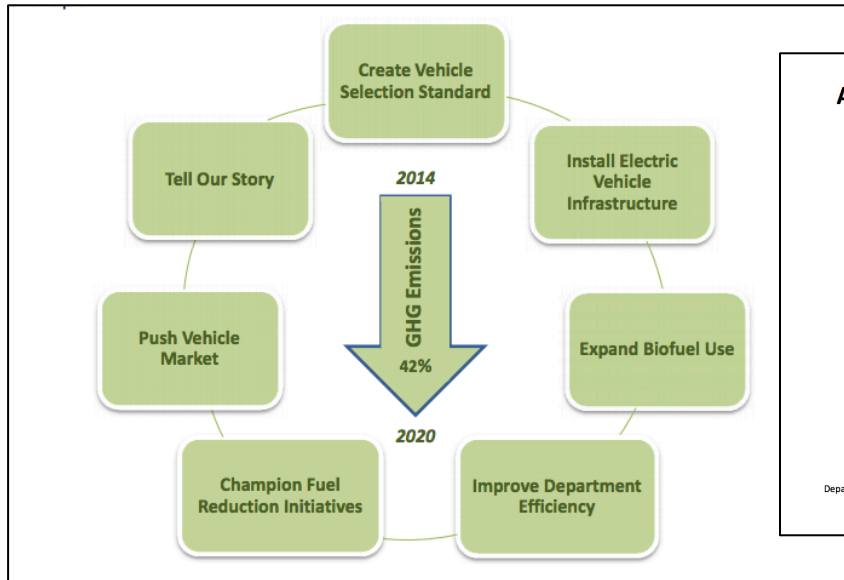
# Green Fleet Procurement Policy and Implementation Plan

## CITY OF MINNEAPOLIS GREEN FLEET POLICY



### TABLE OF CONTENTS

- I. Introduction
  - Purpose & Objectives
  - Oversight: The Green Fleet Team
- II. Establishing a Baseline for Inventory
- III. Implementation Strategies
  - Optimize Fleet Size
  - Replacement Vehicles
  - Reduce Vehicle Size
  - Increase Use of Alternative-Fuel Vehicles and Equipment
  - Vehicle Maintenance
  - Operation of Alternate Fuel Vehicles
  - Reducing Other Environmental Impacts of Vehicles
- IV. Implementation Procedures
  - Guidelines
  - Exemptions
  - New Vehicle Justification Form
- V. Annual Reporting



## A CLEAN AND GREEN FLEET

An Updated Action Plan  
For the City of Seattle



August 2014

Prepared by:  
Department of Finance & Administrative Services, Fleet Management Division  
Andrea Pratt | 206-684-0137 | [andrea.pratt@seattle.gov](mailto:andrea.pratt@seattle.gov)



# CASE STUDY

## NYC Clean Fleet Plan (2015)

- **Commits to reducing fleet emissions of 50% by 2025 and 80% by 2050, which is “equivalent to decommissioning a 65 MW coal power plant**
- **Aims to reduce diesel particulates and other pollutants**
- **Includes several strategic procurement actions:**
  - **Adding 2000 electric vehicles (EVs) by 2020, giving NYC the largest EV fleet of any U.S. city;**
  - **Expanding the City’s intra-agency car-sharing program;**
  - **Installing anti-idling equipment to reduce engine activity when vehicles are stopped along with auxiliary battery systems; and**
  - **Increasing use of biodiesel, renewable diesel and/or compressed natural gas (CNG) to replace conventional diesel**

December 2015

### NYC Clean Fleet

New York City will lead by example in pursuing 80x50 transportation emissions reductions by improving the sustainability of its municipal vehicle fleet

# Use Car-Sharing Services

## **CASE STUDY: City of Chicago saved \$2 million annually by using two car-sharing programs**

- 800 city employees use Chicago Flex Fleet
- 400 have signed up for city's Zipcar membership
- Reduced fleet size from 1000 to 650 vehicles
- Eliminated \$200/month in parking fees
- Significantly reduced maintenance costs

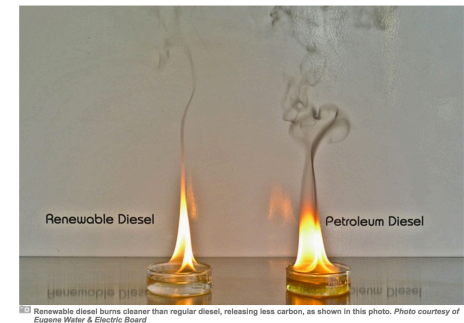


*“The Zipcar/Flex Fleet program is 25 cents per mile cheaper than the city-managed fleet,” Kevin Campbell, Manager of Fleet Services, City of Chicago.*

[www.govexec.com/state-local/2014/07/car-sharing-chicago-zipcar-indianapolis-blueindy/88141/](http://www.govexec.com/state-local/2014/07/car-sharing-chicago-zipcar-indianapolis-blueindy/88141/)

# Try “Renewable” Diesel

- Made from vegetable oils, animal fats
- Burns cleaner than diesel fuel
- Fleet managers have reported:
  - 50-90 reduction in CO2 emissions
  - 33% reduction in particulate matter (PM 2.5), which is linked to asthma; d
  - Lower emissions of other air pollutants (NOx, SOx)
- Prevents vehicle downtime
- Lowers maintenance costs
  - Fewer clogged fuel lines
  - Need to change particulate filters less often
- Improves fuel efficiency



# Use Bikes

## **CASE STUDY: San Francisco, CA is First US City to Use Bike-Sharing Service for Official Travel**

- Sustainable, healthy transportation option
- Saves city money
- City employees can use bikes for attending local meetings, going on patrol, conducting outreach, managing park maintenance, etc.
- Helps SF meet its sustainability goal of having 50% of trips taken by walking, biking, or public transit.
- <http://sfenvironment.org/news/press-release/san-francisco-city-employees-swap-city-cars-for-city-bikes>





# Specify Re-refined Motor Oil

- Replaces petroleum, which releases GHGs during extraction/refining



*Santa Clara County, CA has saved ~\$40,000 annually by procuring API-certified re-refined motor oil using a contract issued by the City of San Jose*

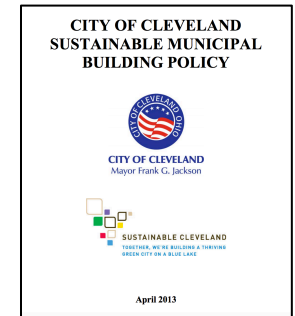


# BEST PRACTICE

## Adopt Sustainable Municipal Building Policy

Cleveland, Ohio's *Sustainable Municipal Building Policy* emphasizes procurement of products needed for building operations and maintenance, rather than focusing only on construction/renovation.

*The City of Cleveland shall incorporate green building practices into the siting, design, construction, remodeling, repair, maintenance, operation, and deconstruction of all City facilities.*

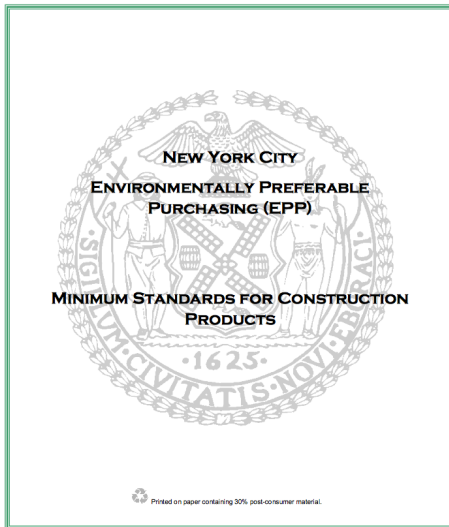


It references LEED-EBOM and encourages City employees to choose ENERGY STAR appliances, WaterSense faucets and toilets, reflective and vegetative roofs and permeable/reflective pavement.

# BEST PRACTICE

## Adopt Specs for Construction Products

### **CASE STUDY:** *New York City Environmentally Preferable Purchasing (EPP) Minimum Standards for Construction Products (2012)*



- Appliances
- Architectural Coatings
- HVAC Equipment
- Lighting Products
- Plumbing Fixtures
- Miscellaneous (flooring, motors, insulation)



**Standard:**

Energy Star: All energy-using products for which the United States Environmental Protection Agency and the United States Department of Energy have developed energy efficiency standards for compliance with the Energy Star program shall be ENERGY STAR labeled.

# “Best Value” Procurement

## Favors Efficient Products

Considers overall (life-cycle) costs of ownership:

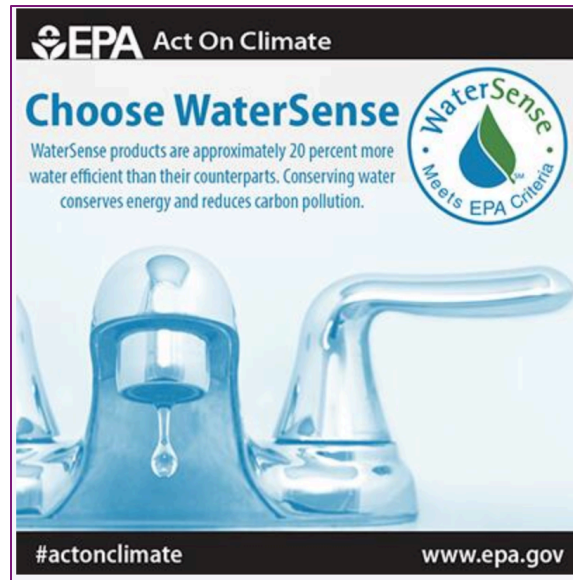
- Initial price
- Utility costs  
(energy, water)
- Maintenance costs  
(labor and replacement)
- End-of-life costs  
(disposal and recycling)





# Water Conservation Products Save Energy and \$

**Running hot water for 5 minutes  
= 60 watt bulb for 14 hours**





# ENERGY STAR Calculators

**ENERGY.GOV**  
Office of Energy Efficiency & Renewable Energy
Search Energy.gov

[SERVICES](#) | [EFFICIENCY](#) | [RENEWABLES](#) | [TRANSPORTATION](#) | [ABOUT US](#) | [OFFICES >](#)

[Home](#) » [Products & Technologies](#) » [Energy-Efficient Products](#) » Energy and Cost Savings Calculators for Energy-Efficient Products

## ENERGY AND COST SAVINGS CALCULATORS FOR ENERGY-EFFICIENT PRODUCTS

<p><a href="#">FEMP Home</a></p> <p><a href="#">About the Federal Energy Management Program</a></p> <p><a href="#">Laws &amp; Requirements</a></p> <p><a href="#">Project Financing</a></p> <p><a href="#">Reporting &amp; Data</a></p> <p><a href="#">Training</a></p> <p><a href="#">Technical Assistance</a></p> <p><a href="#">Products &amp; Technologies</a></p> <p style="padding-left: 20px;"><a href="#">Energy-Efficient Products</a></p> <p style="padding-left: 20px;"><a href="#">Technology Deployment</a></p> <p><a href="#">Renewable Energy Projects</a></p> <p><a href="#">Facilities</a></p> <p><a href="#">Fleets</a></p>	<p>Estimate energy and cost savings for energy- and water-efficient product categories using these interactive calculators provided by the Federal Energy Management Program or ENERGY STAR.</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid #ccc; padding: 5px;"> <p><b>COMMERCIAL HEATING AND COOLING</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Air-Cooled Chillers</a></li> <li>• <a href="#">Boilers</a></li> <li>• <a href="#">Commercial Heat Pumps</a></li> <li>• <a href="#">Commercial Rooftop Air Conditioners</a></li> </ul> <p><b>RESIDENTIAL HEATING AND COOLING</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Air-Source Heat Pumps</a></li> <li>• <a href="#">Central Air Conditioners</a></li> <li>• <a href="#">Electric and Gas Water Heaters</a></li> <li>• <a href="#">Gas Furnaces</a></li> <li>• <a href="#">Solar Hot Water Systems</a></li> </ul> <p><b>IT AND ELECTRONICS</b></p> </td> <td style="width: 50%; padding: 5px;"> <p><b>APPLIANCES</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Commercial Dishwashers</a></li> <li>• <a href="#">Clothes Washers</a></li> </ul> <p><b>FOOD SERVICE</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Dishwashers</a></li> <li>• <a href="#">Commercial Fryers</a></li> <li>• <a href="#">Commercial Griddles</a></li> <li>• <a href="#">Commercial Hot Food Holding Cabinets</a></li> <li>• <a href="#">Ice Machines</a></li> <li>• <a href="#">Commercial Ovens</a></li> <li>• <a href="#">Commercial Steam Cookers</a></li> </ul> <p><b>OTHER</b></p> </td> </tr> </table>	<p><b>COMMERCIAL HEATING AND COOLING</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Air-Cooled Chillers</a></li> <li>• <a href="#">Boilers</a></li> <li>• <a href="#">Commercial Heat Pumps</a></li> <li>• <a href="#">Commercial Rooftop Air Conditioners</a></li> </ul> <p><b>RESIDENTIAL HEATING AND COOLING</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Air-Source Heat Pumps</a></li> <li>• <a href="#">Central Air Conditioners</a></li> <li>• <a href="#">Electric and Gas Water Heaters</a></li> <li>• <a href="#">Gas Furnaces</a></li> <li>• <a href="#">Solar Hot Water Systems</a></li> </ul> <p><b>IT AND ELECTRONICS</b></p>	<p><b>APPLIANCES</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Commercial Dishwashers</a></li> <li>• <a href="#">Clothes Washers</a></li> </ul> <p><b>FOOD SERVICE</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Dishwashers</a></li> <li>• <a href="#">Commercial Fryers</a></li> <li>• <a href="#">Commercial Griddles</a></li> <li>• <a href="#">Commercial Hot Food Holding Cabinets</a></li> <li>• <a href="#">Ice Machines</a></li> <li>• <a href="#">Commercial Ovens</a></li> <li>• <a href="#">Commercial Steam Cookers</a></li> </ul> <p><b>OTHER</b></p>	<p><b>FEMP CONTACTS</b></p> <p><a href="#">Saralyn Bunch</a> U.S. Department of Energy 202-586-3267</p> <p><a href="#">Christopher Payne</a> Lawrence Berkeley National Laboratory 510-495-2577</p> <p><b>TOOLS</b></p> <p><a href="#">Building Life Cycle Cost Software</a></p> <p><a href="#">Low Standby Power Product List</a></p> <p><a href="#">MotorMaster+</a></p>
<p><b>COMMERCIAL HEATING AND COOLING</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Air-Cooled Chillers</a></li> <li>• <a href="#">Boilers</a></li> <li>• <a href="#">Commercial Heat Pumps</a></li> <li>• <a href="#">Commercial Rooftop Air Conditioners</a></li> </ul> <p><b>RESIDENTIAL HEATING AND COOLING</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Air-Source Heat Pumps</a></li> <li>• <a href="#">Central Air Conditioners</a></li> <li>• <a href="#">Electric and Gas Water Heaters</a></li> <li>• <a href="#">Gas Furnaces</a></li> <li>• <a href="#">Solar Hot Water Systems</a></li> </ul> <p><b>IT AND ELECTRONICS</b></p>	<p><b>APPLIANCES</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Commercial Dishwashers</a></li> <li>• <a href="#">Clothes Washers</a></li> </ul> <p><b>FOOD SERVICE</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Dishwashers</a></li> <li>• <a href="#">Commercial Fryers</a></li> <li>• <a href="#">Commercial Griddles</a></li> <li>• <a href="#">Commercial Hot Food Holding Cabinets</a></li> <li>• <a href="#">Ice Machines</a></li> <li>• <a href="#">Commercial Ovens</a></li> <li>• <a href="#">Commercial Steam Cookers</a></li> </ul> <p><b>OTHER</b></p>			

# BEST PRACTICE

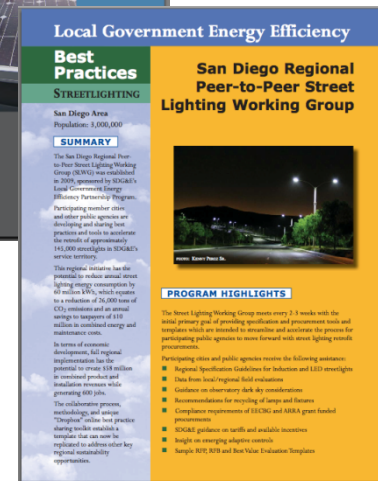
## Cooperative Purchasing

Collaboration among municipalities can:

**SAVE TIME** by not “reinventing the wheel” by sharing research, specifications, bid solicitation documents, and vendor lists to create new “green contracts

**SAVE MONEY** by aggregating demand from multiple entities

- 1 Early regional recruiting
- 2 Initial participant questionnaire
- 3 Solar Project Workshop
- 4 Consolidated analysis of sites
- 5 Internal decision maker consultation
- 6 Design of procurement process and documents
- 7 Request for proposals
- 8 Proposal evaluation
- 9 Negotiations and awards
- 10 Installation project management
- 11 Commissioning and operations
- 12 Celebration of success



# GREEN PURCHASING OPPORTUNITIES

## New Cooperative Agreements for MRO/ Hardware Supplies



### *NASPO ValuePoint's Facilities Maintenance, Repair and Operations (MRO) Contract*

- Contract begins March 2017
- Sign “green” participating addendum
- Access at [www.naspovaluepoint.org](http://www.naspovaluepoint.org)



### *US Communities' Maintenance and Hardware Supplies Contract*

- Contract begins August 2017
- Sign “green” participating addendum
- Access at [www.uscommunities.org](http://www.uscommunities.org)

# BEST PRACTICE

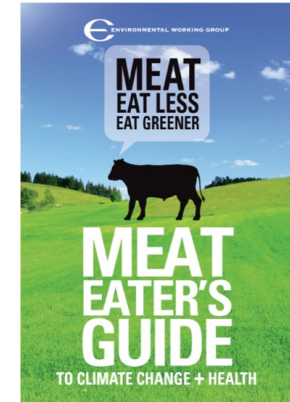
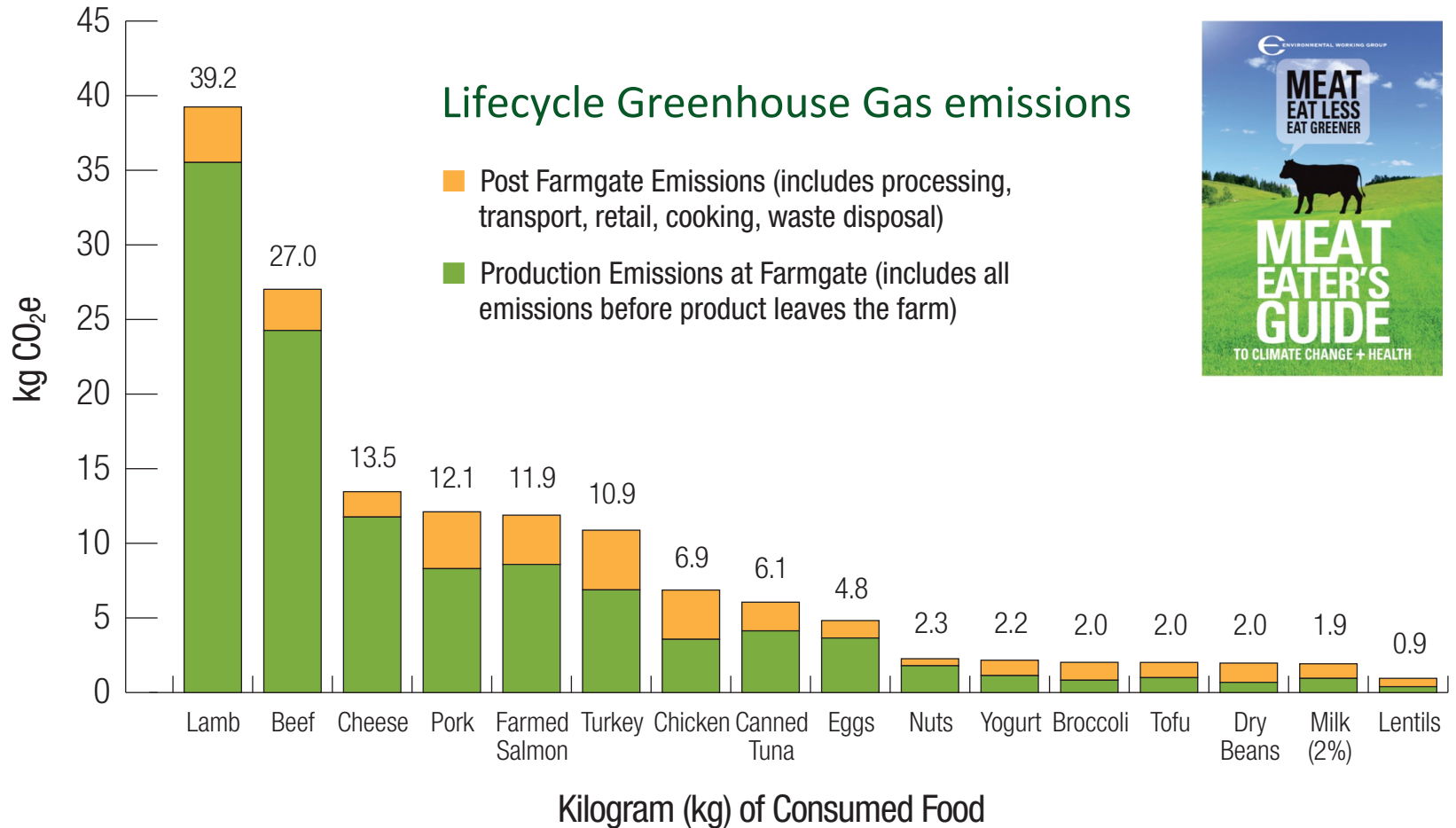
## Reduce Transportation Impacts

- **Avoid overnight shipping, whenever possible**
- **Ask vendors to offer incentives for reducing the frequency of deliveries**
- **Give preference to local manufacturers and distributors**



## WHEN IT COMES TO CLIMATE IMPACTS

# All Protein is Not Created Equal



Slide provided by Friends of the Earth

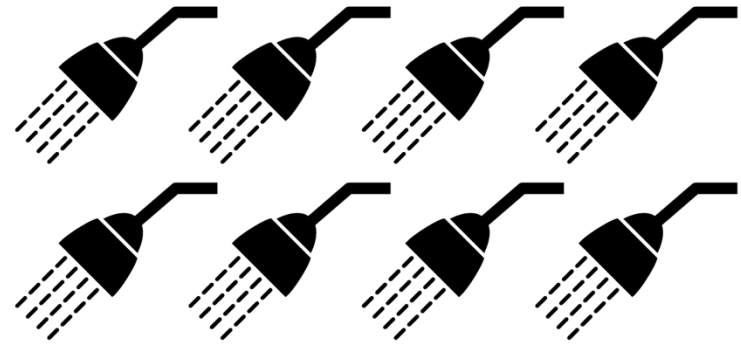
# WATER AND YOUR FOOD



Quarter pound burger

=

8 showers



OR

5 days of indoor washing activities  
(washing dishes, laundry, showers etc).



Slide provided by Friends of the Earth

# Climate Action Plans Encouraging Reduced Meat Consumption



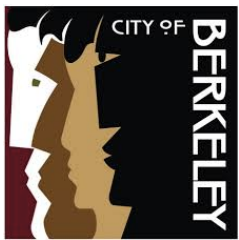
*“...create policies and practices to encourage the purchase of healthy, low-carbon and minimally processed foods for public meetings, events and facilities. Leverage the purchasing power of public and private institutions to source low-carbon and local foods including County jails.”*



*“Reducing meat consumption is critical for those who want to minimize their impact on the planet’s resources.”*



*“...the production stage in the lifecycle of food is the most emissions-intensive. Therefore, eating more fruits and vegetables and less meat and dairy is a great way for us to reduce our carbon footprints through our food choices. Reduce your impact by going meat-free one day a week.”*



*“Through the City’s website and publications, make information available to the public to facilitate consideration of a less carbon-intensive diet, such as eating less meat and choosing vegetarian or vegan options instead.”*

Slide provided by Friends of the Earth



# Questions? Comments?



**Alicia Culver**

**Executive Director**

**Responsible Purchasing Network**

**[alicia@responsiblepurchasing.org](mailto:alicia@responsiblepurchasing.org)**

**510-547-5475**

# Additional Resources

## Responsible Purchasing Network

### Green Purchasing

#### Opportunities and Best Practices



### Green Purchasing Best Practices: Compostable Food Service Ware



### Green Purchasing Opportunities and Best Practices: Imaging Equipment



**RPN** Responsible Purchasing Network Because Every Purchase Matters

About • Membership • Resources • Events • News • Forums • Jobs • Purchasing Guides

**Join RPN**  
And get a free copy of The Competitive Advantage: EcoPurchasing!

**Sponsor a Membership**  
Green your corner of the world—sponsor an RPN membership for your school, church, or local government. Download form (pdf, doc)

**Did You Miss an RPN Webinar?**  
Click here to download or view the presentations

**RPN Highlights**  
Register Today for RPN's Upcoming Webinar on Jan. 19! The New and Prospective Member Orientation and Sustainable Purchasing 101 webinar will cover RPN's membership resources and important first steps for your green purchasing program that shouldn't be missed. [More](#)

**Purchasing for Climate Protection Webinar**, featuring Carbonfund.org Now Available  
RPN Members now have access to the webinar slides and recording, which featured useful strategies on how to cut greenhouse gas emissions through purchasing. [More](#)

**Look Who's Joined RPN**  
Ontario Lottery And Gaming  
County Of Santa Clara  
[View All Members](#)

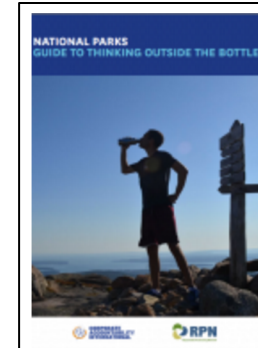
### NASPO-WSCA Fact Sheet

Buying Green Products on WSCA's MRO Contract with Grainger

**WSCA Contact**  
Gail Burchett, Purchasing Division  
Nevada Department of Administration  
Tel: (775) 684-0172  
[gburchett@admin.nv.gov](mailto:gburchett@admin.nv.gov)

**Grainger Contacts**  
Doug D'Alessio  
Senior Government Sales Manager  
Tel: (916) 503-0229  
[Doug.MD'Alessio@grainger.com](mailto:Doug.MD'Alessio@grainger.com)  
[www.grainger.com](http://www.grainger.com)

**Jeff Rehm**  
Corporate Sustainability Manager  
Tel: (847) 535-0844  
[Jffrev.Rehm@grainger.com](mailto:Jffrev.Rehm@grainger.com)



### CHARGING AHEAD:

How to Find Powerful Rechargeable Batteries That Go On and On... and On

A Report by the Responsible Purchasing Network to San Francisco Department of the Environment  
Recommending Specifications for AA, AAA and D-Size Rechargeable Batteries for San Francisco's SF Approved Program

Authors:  
Susan Kinsella  
Alicia Culver

July 2016

RPN Responsible Purchasing Resources: For Public Agencies and Institutions	
	<b>Eco-Labels</b>
	<b>Biodegradable Products Institute</b> is an organization which certifies that plastic products with "biodegradable" claims will safely break down in a typical commercial composting facility. <a href="http://www.bpiworld.org">www.bpiworld.org</a>
	<b>Chlorine-free Products Association</b> is a nonprofit organization that certifies chlorine-free products such as copy paper, envelopes and tissue products. <a href="http://www.chlorinefreeproducts.org">www.chlorinefreeproducts.org</a>
	<b>EcoLogo</b> is Canada's environmental product certification program. It has issued standards for over 300 product categories (such as flooring, paint, electricity, cleaners, office equipment, and paper products), many of which are sold in the United States. <a href="http://www.ecologo.org/en/">www.ecologo.org/en/</a>
	<b>Electronic Products Environmental Assessment Tool (EPEAT)</b> is an independent program that certifies "green" electronic equipment such as computers, monitors and laptops. <a href="http://www.epeat.net">www.epeat.net</a>
	<b>ENERGY STAR</b> is a joint program of the US Department of Energy and US Environmental Protection Agency that allows its label to be used on energy-efficient products (such as light fixtures, CFLs, LEDs, appliances and office equipment). <a href="http://www.energystar.gov">www.energystar.gov</a>
	<b>E-Stewards</b> is a program that certifies recyclers of electronic equipment that adhere to the highest standard of environmental responsibility and worker protection. The e-Stewards Standard for Responsible Recycling and Reuse of Electronic Equipment® can be found at <a href="http://e-stewards.org/certificationoverview/">http://e-stewards.org/certificationoverview/</a>
	<b>Forest Stewardship Council</b> certifies lumber and other building products made with sustainably harvested wood or that reduce wood consumption. <a href="http://www.fscus.org">www.fscus.org</a>
	<b>Green-e</b> is a labeling program established by the nonprofit organization, Center for Resource Solutions, which verifies that electricity has been generated using renewable sources such as solar and wind. <a href="http://www.green-e.org">www.green-e.org</a>

# Additional Resources on Sustainable Purchasing (Electronics)

The Federal Electronics Challenge (FEC) is a partnership program that assists federal agencies and facilities to:

- ❑ Purchase greener electronics
- ❑ Reduce impacts of electronics during use
- ❑ Manage used electronics in an environmentally safe way

*The FEC helps federal agencies and facilities meet their federal electronics stewardship requirements*

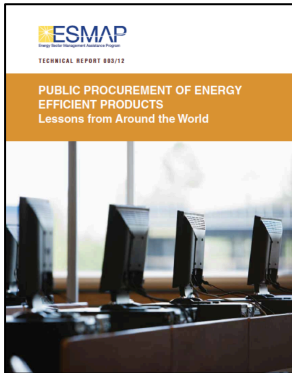


The State Electronics Challenge (SEC) encourages state, tribal, regional, and local governments, including schools and other public entities, to responsibly manage office equipment, by:

- Purchasing greener office equipment.
- Reducing the impacts of these products during use.
- Managing obsolete electronics in an environmentally safe way.

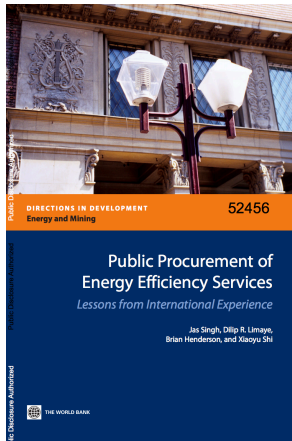
The SEC provides resources to assist organizations in the public sector, as well as private schools and colleges, who sign up as "Partners" to become leaders and address the challenges posed by electronics.

# Additional Resources on Energy-Efficient Purchasing



*Public Procurement of Energy Efficient Products:  
Lessons From Around the World,*  
World Bank (2012)

<https://www.esmap.org/node/2052>

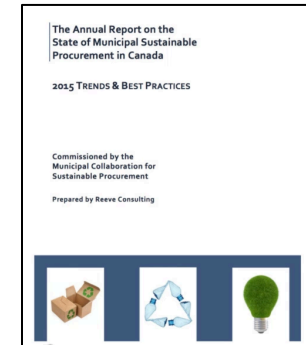


*Public Procurement of Energy Efficient Services:  
Lessons From Around the World,*  
World Bank (2012)

<https://www.esmap.org/node/2052>

# Additional Resources on Sustainable Purchasing (Canada/NA)

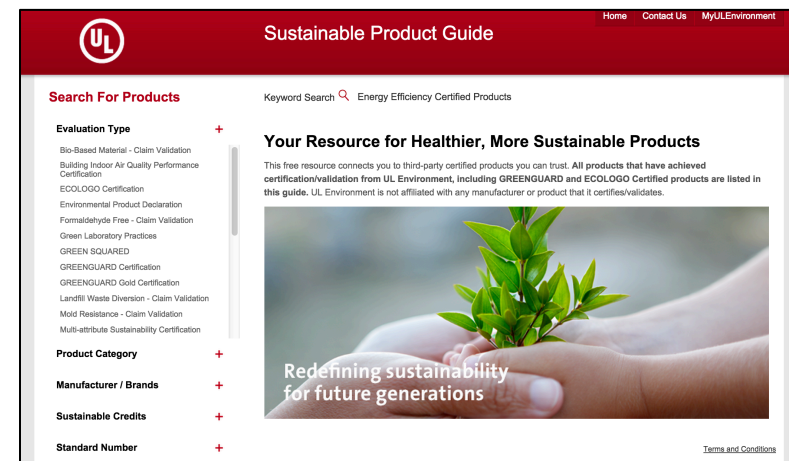
**Municipal Collaboration  
for Sustainable Procurement**  
(Resources for members only)  
<http://mcspgroup.com/>



**UL (Underwriters Laboratory)**  
Certifies products:

- EcoLogo (multi-attribute)
- Greenguard (low-emitting)

Maintains *Sustainable Products Guide*



# Additional Resources

## Sustainable Purchasing Leadership Council



*Guidance for Leadership  
in Sustainable Purchasing*  
(available for SPLC  
members only)

[www.sustainablepurchasing.org](http://www.sustainablepurchasing.org)

### **Chemically Intensive Products**

- Cleaning and Sanitizing Products for Facilities Care

### **Construction and Renovation Products**

- Construction and Renovation Materials
- Furnishings

### **Electricity**

### **Food and Beverages for Food Services**

- Animal Protein
- Beverages (except Milk, Coffee, and Tea)
- Chocolate
- Coffee
- Dairy
- Grains, Rice, and Legumes
- Nuts and Seeds
- Oils
- Produce
- Spices
- Tea

### **IT Hardware and Services**

- Data Centers
- End of Life Management
- Imaging Equipment and Televisions
- Mobile Phones
- Personal Computers

### **Professional Services**

### **Transportation and Fuels**

- Fuels
- Institutional Vehicle Fleets
- Local Delivery Service
- Long-Haul Transport
- Travel

### **Wood and Agrifiber Products**

- Paper

# Additional Resources

## on Sustainable Purchasing (Health Care)

### Greenhealth Exchange

A new green purchasing cooperative for hospitals

[www.greenhealthexchange.com](http://www.greenhealthexchange.com)



### Healthier Hospitals Initiative

A collaborative effort by hospitals to boost sustainability, improve purchasing practices, and lower energy costs

<https://practicegreenhealth.org/tools-resources/healthier-hospitals>



### Practice Greenhealth

Organization that helps healthcare facilities implement various sustainability initiatives

**Greenhealth Cost of Ownership Calculator**

<https://practicegreenhealth.org/topics/leaner-energy>





# Climate Friendly Purchasing Toolkit

West Coast Climate Forum

<http://westcoastclimateforum.com/cfpt>

Karen Cook | Alameda County GSA | [www.acsustain.org](http://www.acsustain.org)

ACCO Climate Strategies Forum | October 19, 2016



**West Coast Climate**  
& Materials Management Forum



Alameda County  
**SUSTAINABILITY**  
*Local Action, Global Impact.*



# Supply Chain Emissions



**West Coast Climate**  
& Materials Management Forum

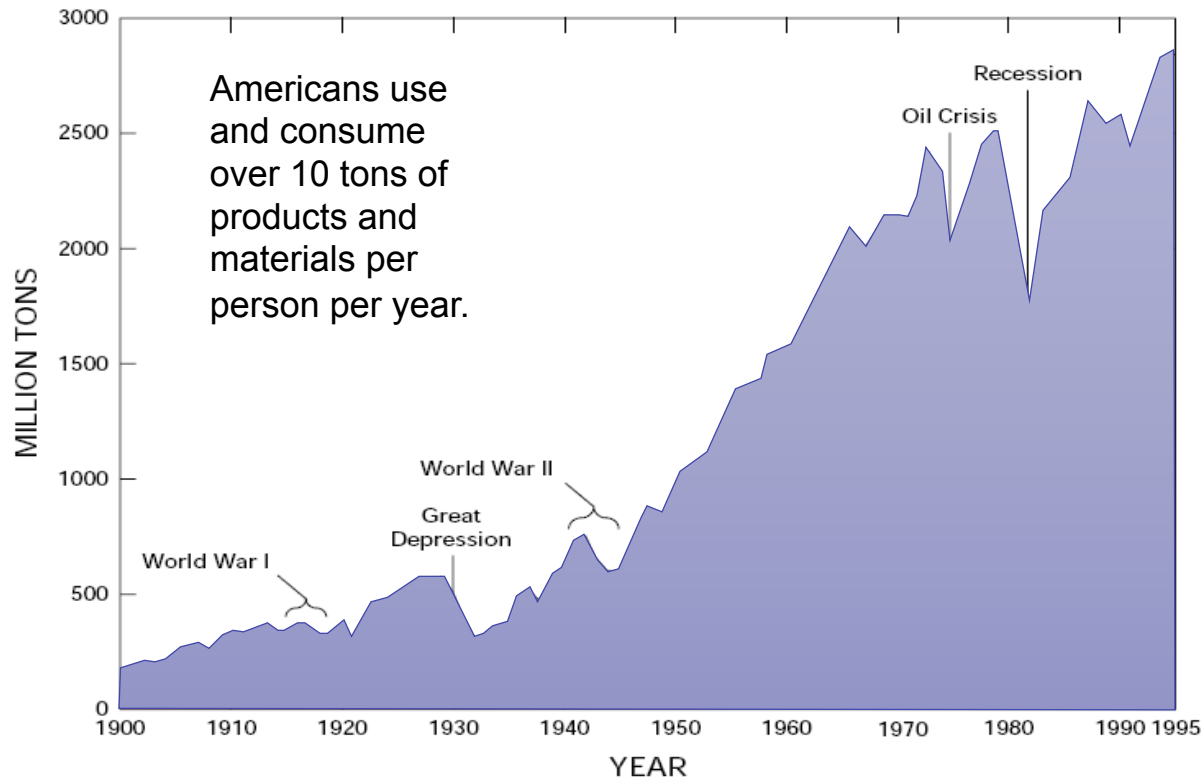


Alameda County  
**SUSTAINABILITY**  
*Local Action, Global Impact.*

# Defining Materials

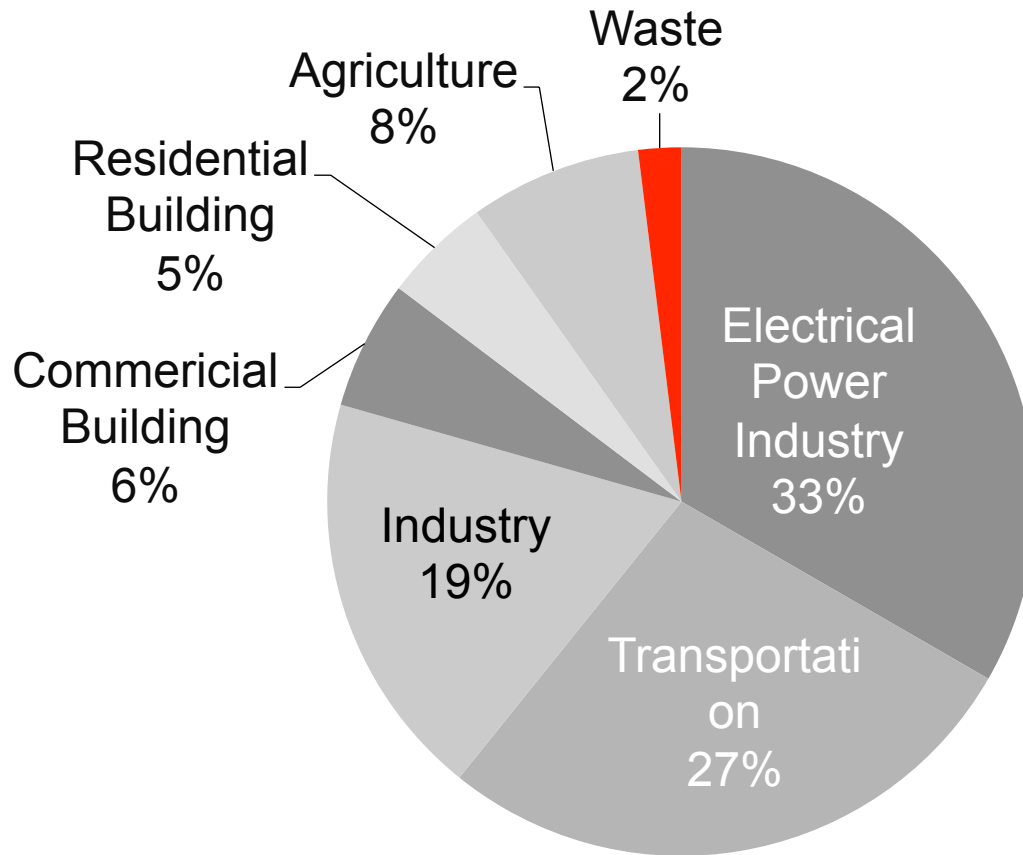


# Material Consumption



Use of materials in the United States, 1900-1995. Modified from Matos and Wagner, 1998, p. 110.

# Sector-Based GHG Emissions



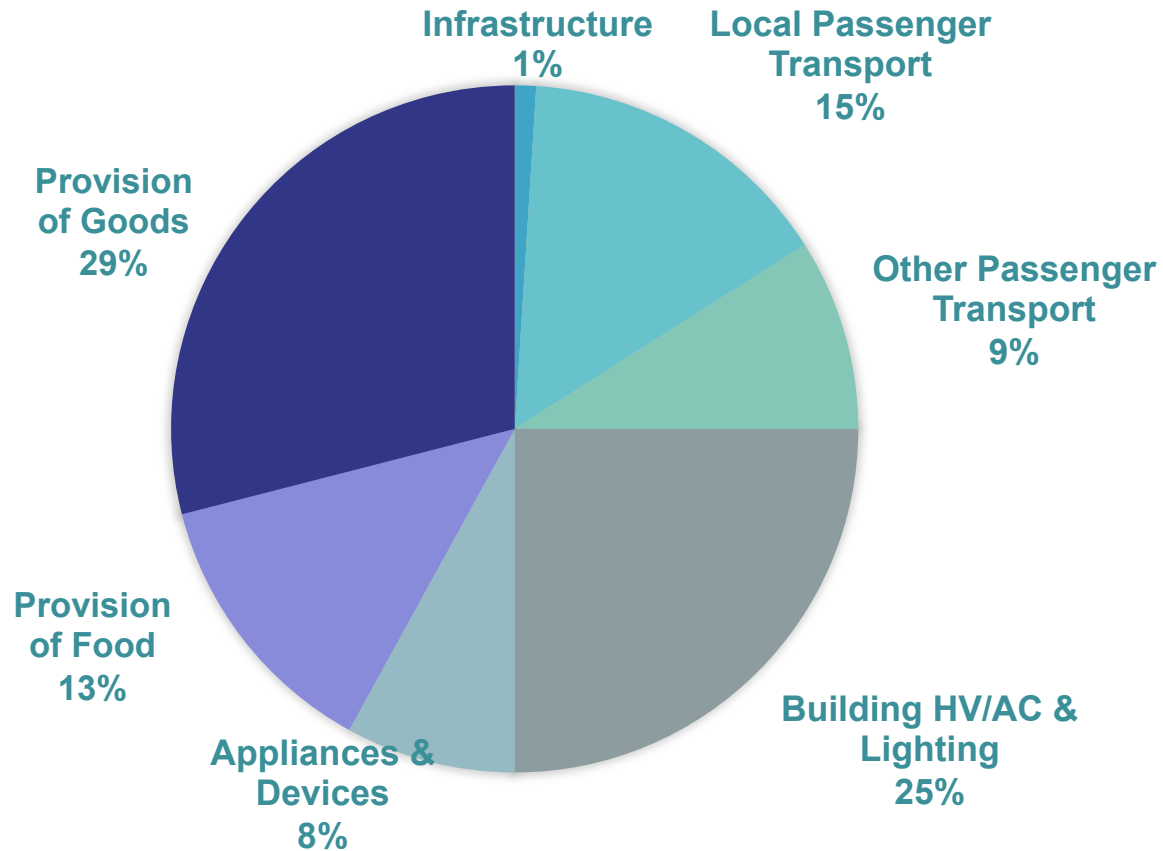
Source: U.S. Inventory of GHG Emissions and Sinks : 1990-2006 (US EPA, 2008)

# Sector-Based GHG Emissions



Source: U.S. Inventory of GHG Emissions and Sinks : 1990-2006 (US EPA, 2008)

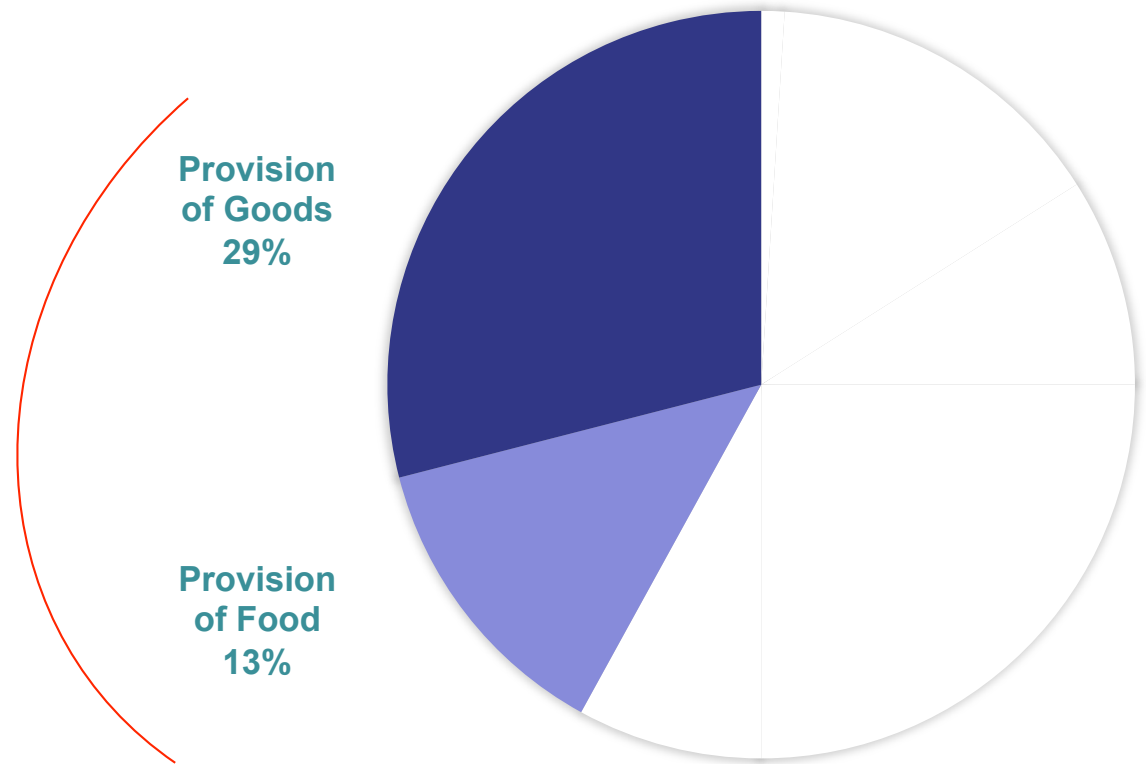
# Systems-Based GHG Emissions



Source: *Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices*. U.S. EPA.

# Systems-Based GHG Emissions

**42%**  
GHG emissions  
from Materials  
Management!

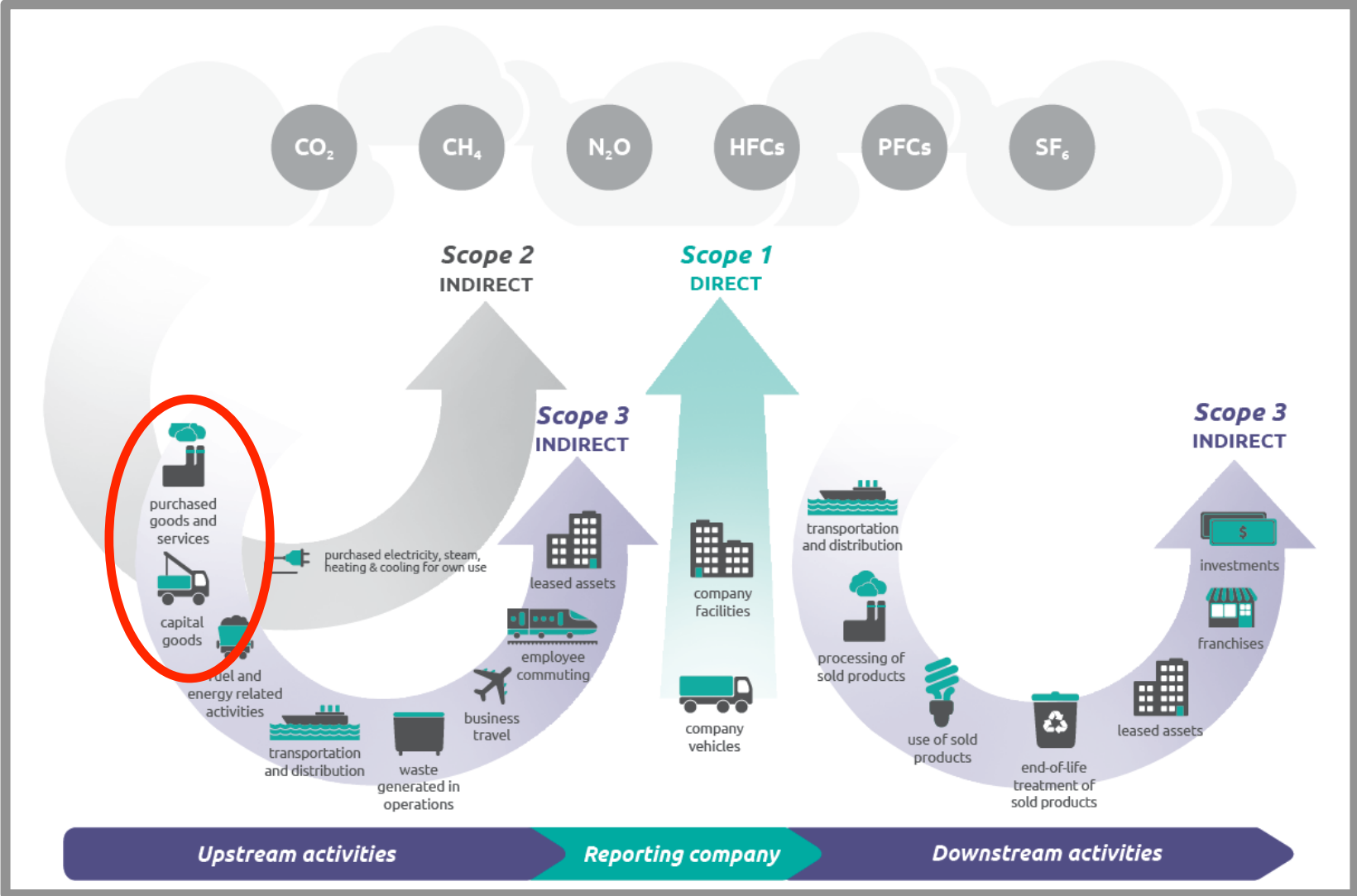


Source: *Opportunities to Reduce Greenhouse Gas Emissions through Materials and Land Management Practices*. U.S. EPA.

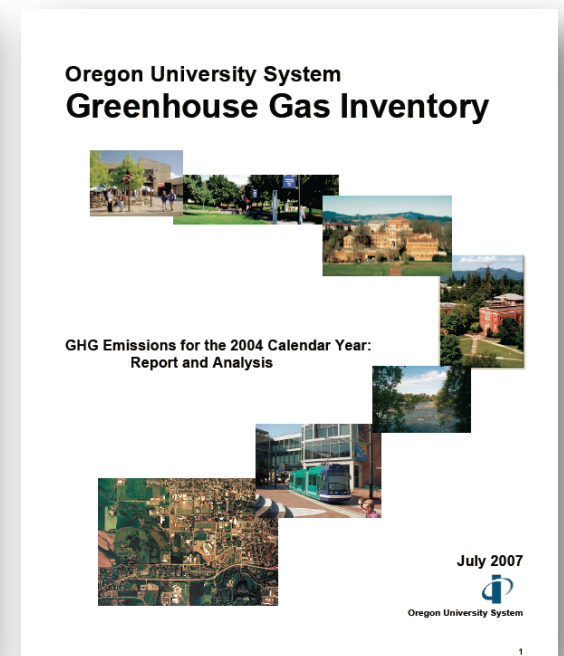
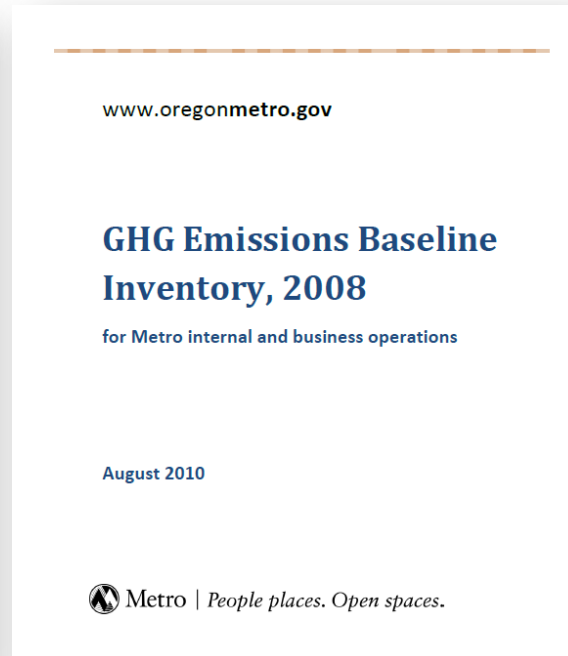
**Governments, collectively,  
spend \$1.6 trillion per year**



# GHG Inventory Scopes



# Trends Analysis Institutional GHG Inventories

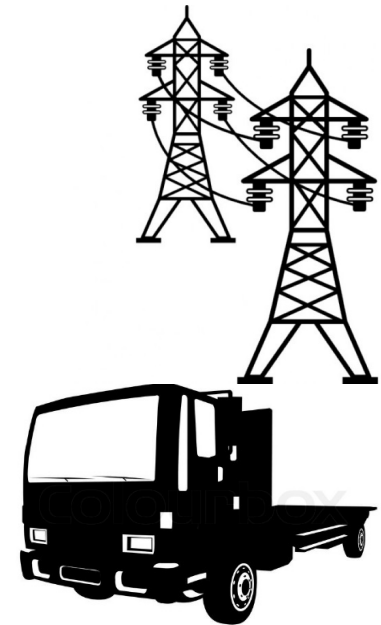
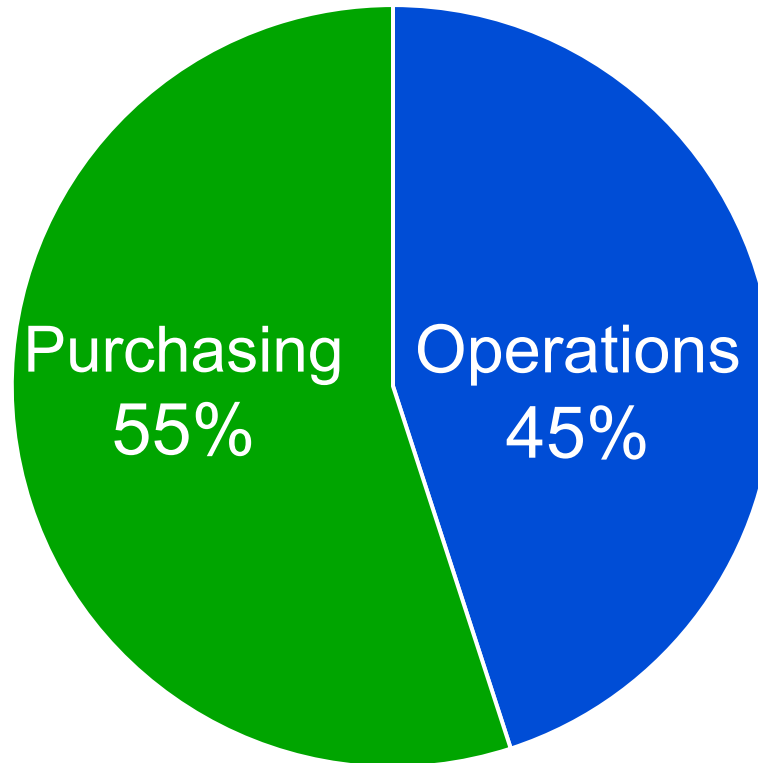
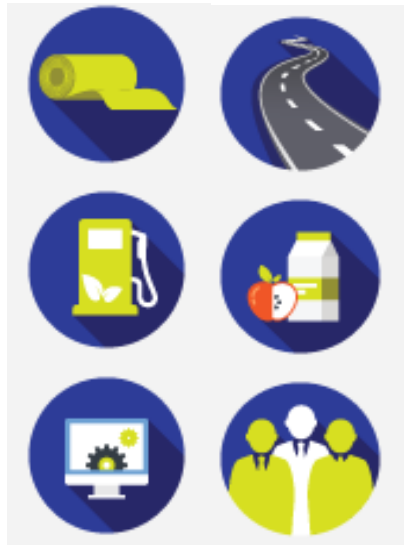


# Finding Trends in Results

- 86 inventories from 36 organizations
- Organization types:
  - Public Agencies
  - Higher Education
  - Public Utilities
- Alternate views:
  - Population & Revenue

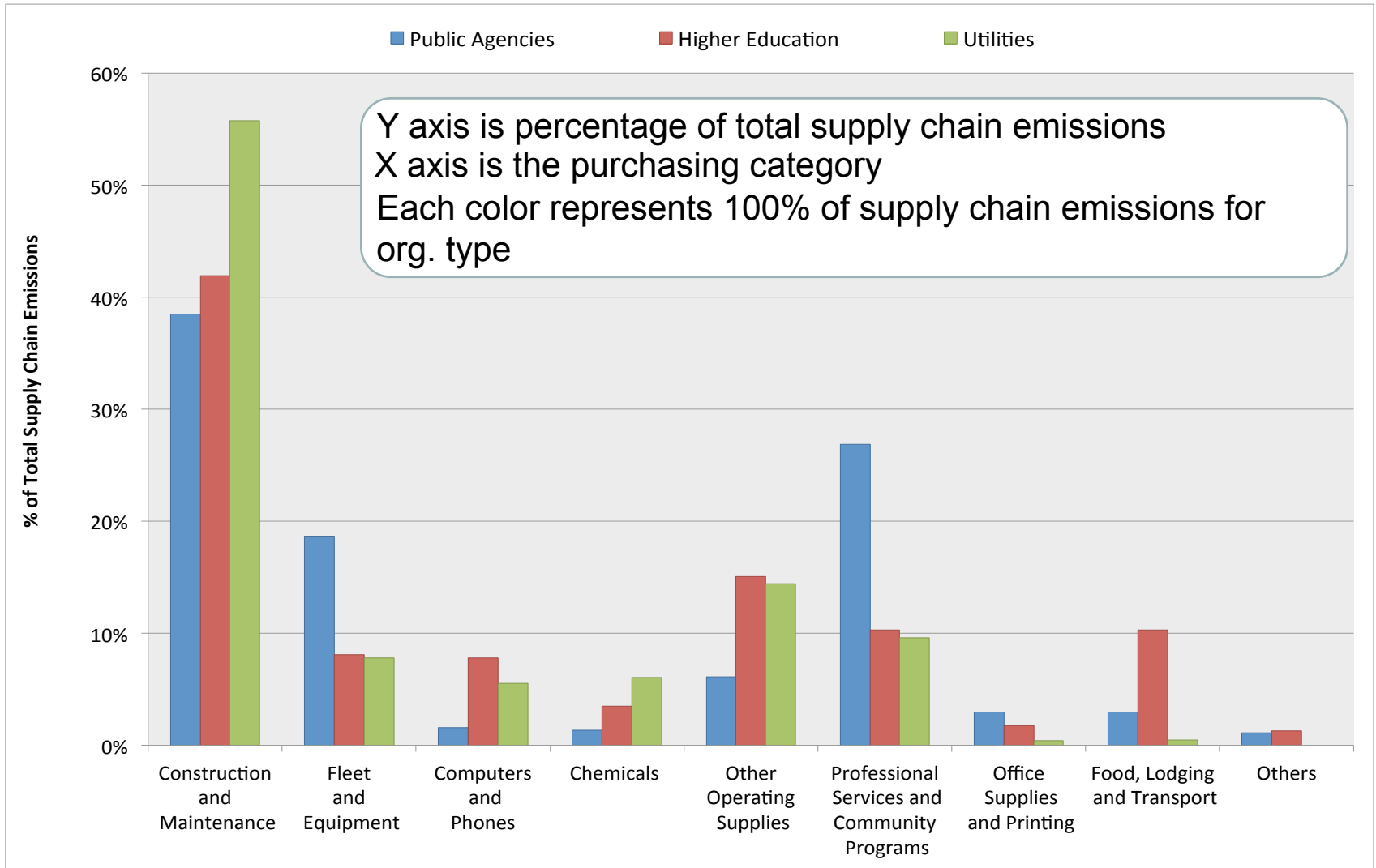
Higher Education Funding Council for England (HEFCE)  
Portland Community College  
University of California - Berkeley  
University of Cambridge  
De Montfort University  
Nottingham Trent University  
Yale University  
University of Oregon  
Southern Oregon University  
Eastern Oregon Univeristy  
Western Oregon University  
Oregon State University  
Portland State University  
Oregon Institute of Technology  
University of Texas - Austin  
University of North Carolina - Willmington  
Portland, OR - Parks and Recreation  
Tualatin Hills, OR - Parks & Recreation District  
Eugene, OR  
Vancouver, WA  
Gresham, OR  
Hillsboro, OR  
Beaverton, OR  
Corvallis, OR  
Lake Oswego, OR  
Springfield, OR  
Orange County, CA - Transportation Authority  
Washington County, OR  
Alameda County, CA  
Portland Metro  
East of England Local Authorities  
Minnesota Pollution Control Agency  
Oregon DEQ Operational  
Joint Water Commission  
Eugene Metropolitan Wastewater Management  
Commission  
Eugene Water and Electric Board

# GHG Emissions from Public Institutions



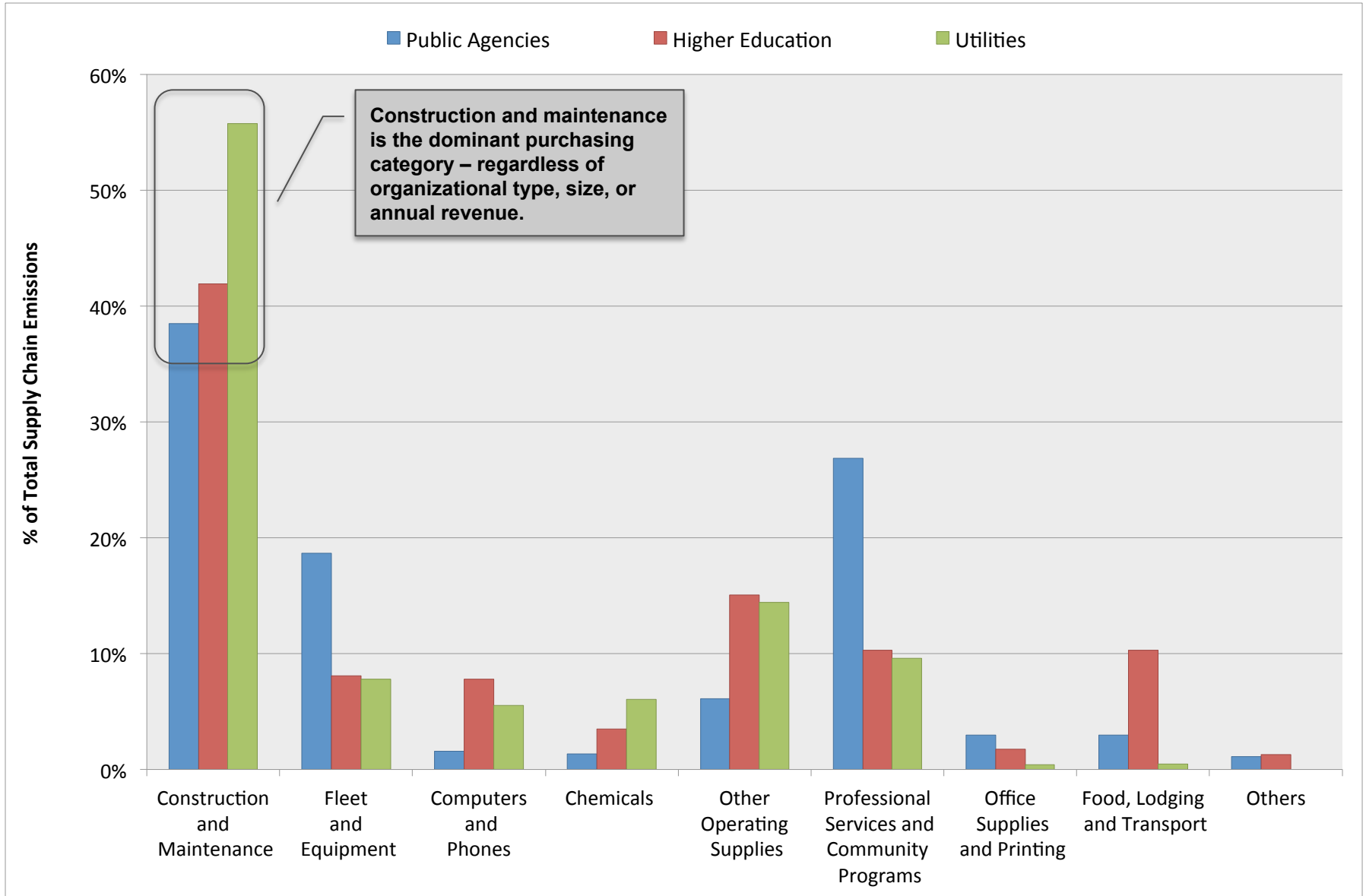
Examples:  
Use of electricity,  
company owned cars,  
etc.

# Significant Purchasing Categories in Supply Chain GHG Emissions

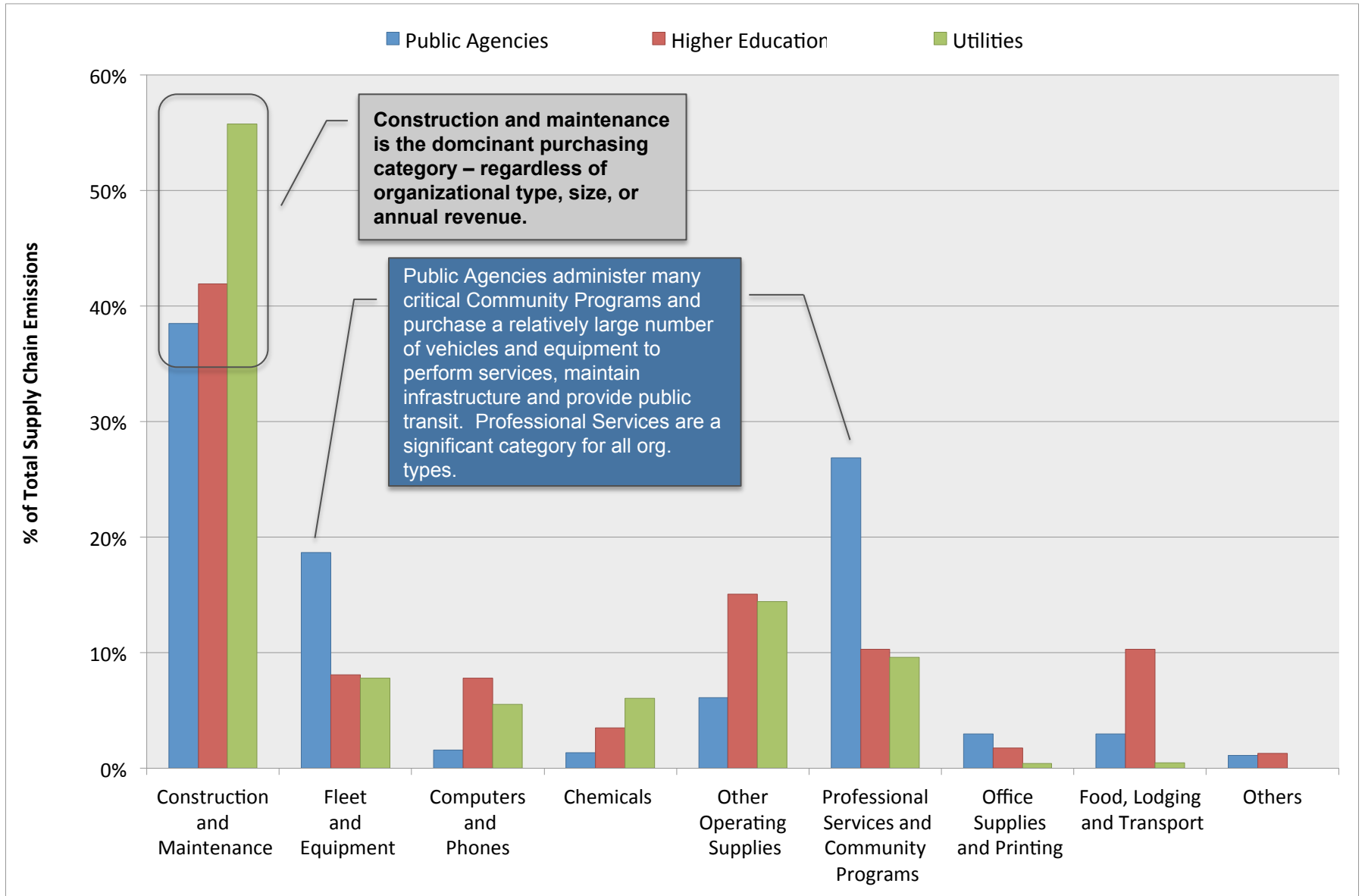


Source (next 5 slides): Good Company on behalf of StopWaste (2015). *Supply Chain Greenhouse Gas Inventory Meta-Analysis*

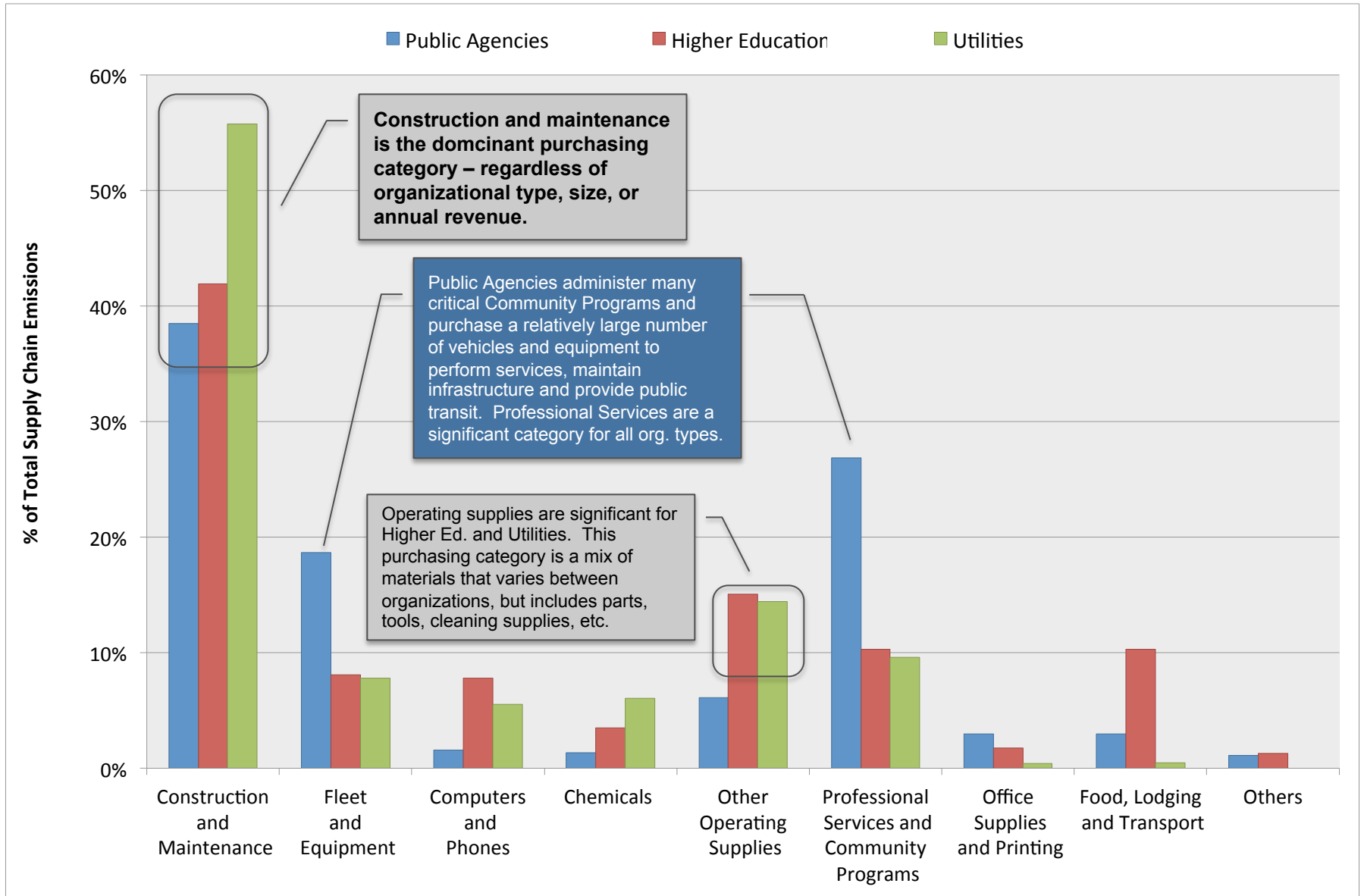
# Significant Purchasing Categories in Supply Chain GHG Emissions



# Significant Purchasing Categories in Supply Chain GHG Emissions

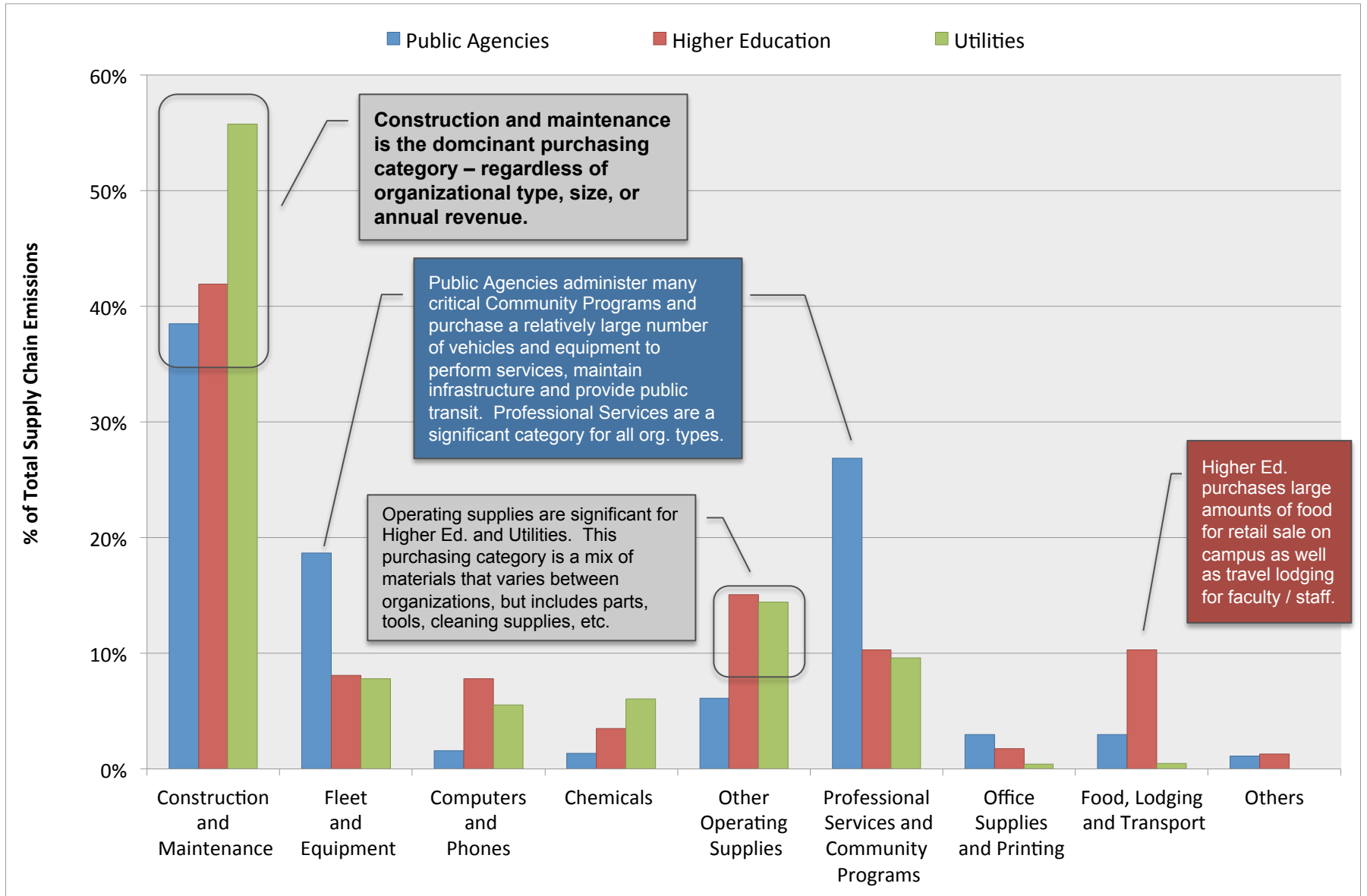


# Significant Purchasing Categories in Supply Chain GHG Emissions





# Significant Purchasing Categories in Supply Chain GHG Emissions







# Climate Friendly Purchasing Toolkit

## ACCO Climate Strategies Forum

Shannon Davis

U.S. EPA, Region 9 [davis.shannon@epa.gov](mailto:davis.shannon@epa.gov)



**West Coast Climate  
& Materials Management Forum**

[www.westcoastclimateforum.com](http://www.westcoastclimateforum.com)

# Authors of the Toolkit

---

- West Coast Climate and Materials Management Forum
- Over 100 contributors

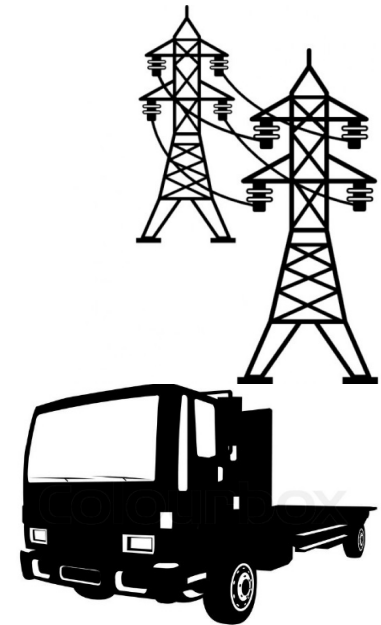
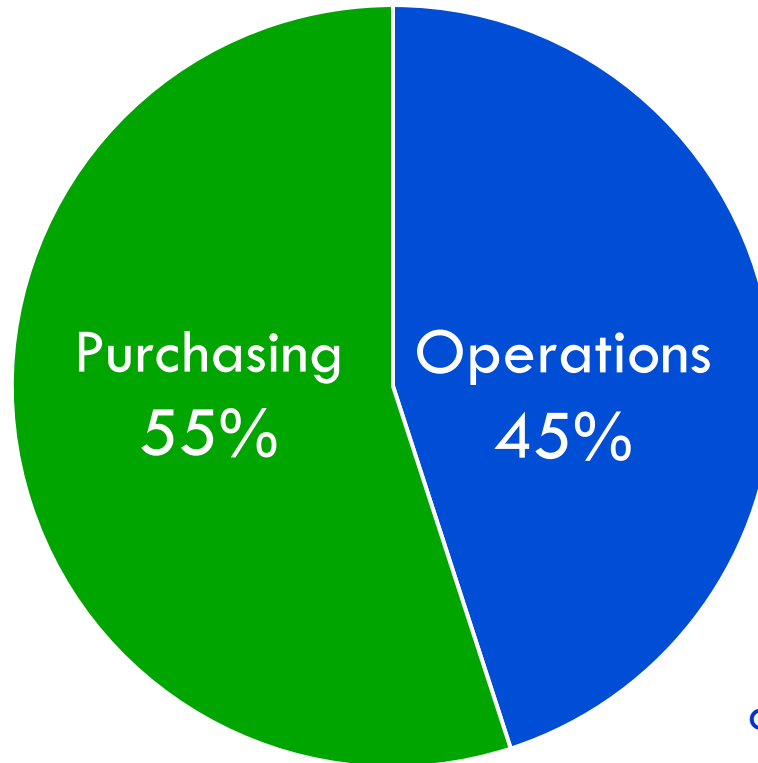
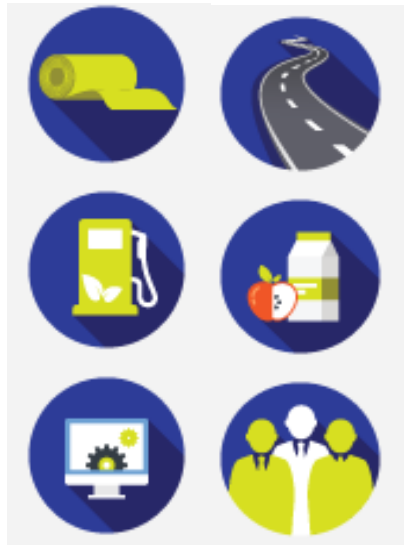


# Public Institution Purchasing Power

---

Governments, collectively, spend  
over ***1.6 trillion dollars year***

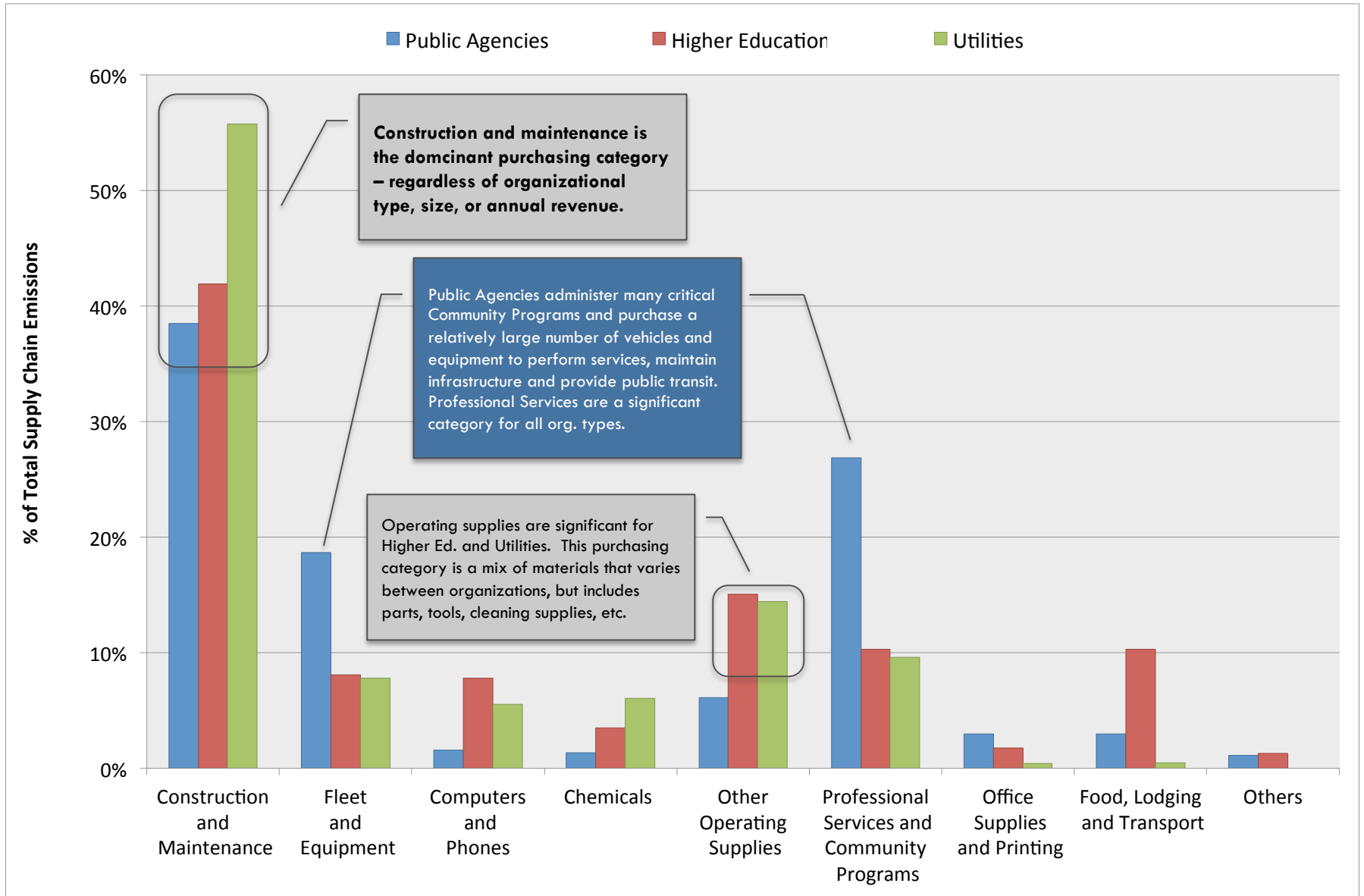
# GHG Emissions from Public Institutions



Examples:  
Use of electricity,  
company owned cars, etc.



# From Trends Analysis to Toolkit





# Toolkit Modules



Construction



Asphalt



Concrete



Carpet & Flooring



Food



Fuels



Information &  
Communications Technology



Professional Services





# Scope & Goals of Toolkit

## Scope

- Cities, counties, public utilities, higher education
- Carbon lens

## Goals

- Reduce carbon footprint from purchases
- Identify the most carbon-intensive products and services
- Provide how-to guide for purchasing professionals



# Guidelines

---

- Why the category matters
- Demand reduction
- Key purchasing strategies
- How to measure reductions
- Case studies and resources

Introduction

Strategies

Procurement Planning and Contract Specifications

Measurement, Resources & Case Studies



## Toolkit Module: Asphalt



# Reducing Carbon Emissions from Asphalt



# Why Asphalt?

- ❑ Almost 150 tons of GHGs are emitted for every ton of asphalt produced.
- ❑ In one case study, asphalt contributed up to 10% of total GHG emissions in construction projects\*





# Strategies to Reduce Carbon Emissions from Asphalt

1. Warm Mix Asphalt (WMA): lowering the mixing temp
2. Use of re-claimed asphalt pavement (RAP)





# Toolkit Module: Carpet & Flooring



## **Making Carpet Purchase, Use and End-of-Life more Climate Friendly**





# Why Carpet?

- Carpet is a very high carbon intensity product
  - ▣ Most carpet is made from petroleum
- Billions of dollars are spent on billions of square feet of carpet each year
  - ▣ More than two billion square yards of carpet were sold\*
- Public institutions are a major purchaser of carpet





# Purchasing Strategies for Carpet

1. Product Selection
2. Lifespan Extension
3. Carpet Recycling or Reuse







# Toolkit Module: Professional Service



## **Reducing Climate Impacts in your Professional Services Contracts**





# Why Professional Services Contracts?

- Professional Services represent about 27% of supply chain emissions for public agencies.
- Large GHG emissions from:
  - ▣ Facility and fleet operations
  - ▣ Business travel
  - ▣ Paper, packaging & shipping of deliverables
  - ▣ Food





# Strategies for Professional Services

1. Reduce demand for services
2. Reduce demand for business travel
3. Reduce demand of carbon intensity of contract deliverables
4. Specify vendors use low-carbon alternative
5. Vendor certifications
6. Vendor sustainability plan
7. Sustainability survey





# Toolkit Module: Information & Communications Technology



## Reducing Climate Impacts in Information and Communications Technology (ICT)



# Why Information & Communications Technology (ICT)?

## It's big, and growing...

- Electronics sector = enormous market
  - In 2012, U.S. imported \$163 billion in ICT
  - In 2011, electricity demand of the cloud was 684 billion kWh (kilowatt hours)
    - Compared with electricity demand of countries, the cloud would rank 6th in the world





# Strategies for Information & Communications Technology (ICT)

1. Low-carbon ICT equipment
2. Printing contracts
3. Purchased cloud-based or other ICT services





# Toolkit Module: Food



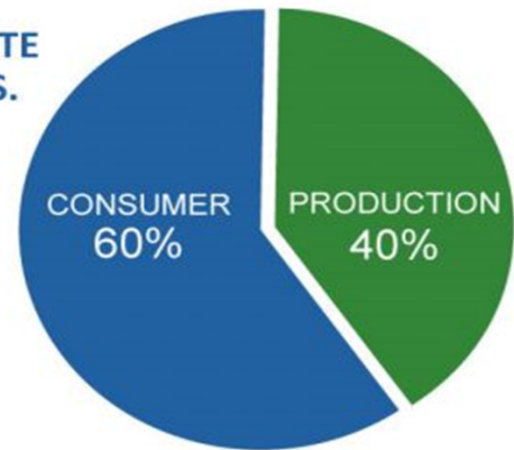
## Reducing the Carbon Impacts of Food & Food Service Purchasing



# Why Food?

- ❑ The provision of food accounts for 13% of total GHG emissions in the US while we waste 60% of our food at the consumer level.
- ❑ Single largest and least recovered waste stream in the US.

FOOD WASTE  
IN THE U.S.







# Strategies for Reducing Carbon Impacts of Food Purchasing

1. Training and measurement
2. Menu planning and low-carbon purchasing
3. Reducing the wasting of food at the storage and preparation stages
4. Energy efficient storage and cooking
5. Reducing food waste at the delivery stage
6. Food recovery
7. Other strategies





# Toolkit Module: Diesel Fuel



## Reducing Carbon Emissions from Diesel Fuel



# Why Diesel?

- For public institution construction projects:
  - ▣ Fuel use contributes 5-23% of total construction emissions
  - ▣ Construction emissions make up to 50% of total emissions
  - ▣ Black carbon is a primary component of diesel emissions





# Why Diesel Fuel?

- ❑ **Diesel Emissions Pose Significant Health Concerns**
  - ❑ Particulates and gasses contribute to acute and chronic health effects
  - ❑ Classified as a human carcinogen by World Health Organization
  - ❑ Other human health impacts include: cardiovascular, respiratory, nervous system disorders





# Strategies to Reduce Diesel Emissions

1. Modernization, retrofitting, and maintenance of trucks & equipment
2. Anti-idling requirements and training
3. Alternative Fuels
4. Demand Reduction



# Thank You

---

**Visit the Forum's website to learn more,  
view past webinars and sign up for the  
e-newsletter.**

**[www.westcoastclimateforum.com](http://www.westcoastclimateforum.com)**



**West Coast Climate  
& Materials Management Forum**