

Greenhouse Gas Management Resources for Small Businesses

Thursday, March 6, 2014

Presented by:

Melissa Klein, U.S. EPA

John Sottong, Technical Director, Center for Corporate Climate Leadership, U.S. EPA

Guest Speakers:

Shane Reilly, Manufacturing Engineer, Rivanna Natural Designs

Steve Wright, Human Resources Manager, High Point Furniture Industries, Inc.

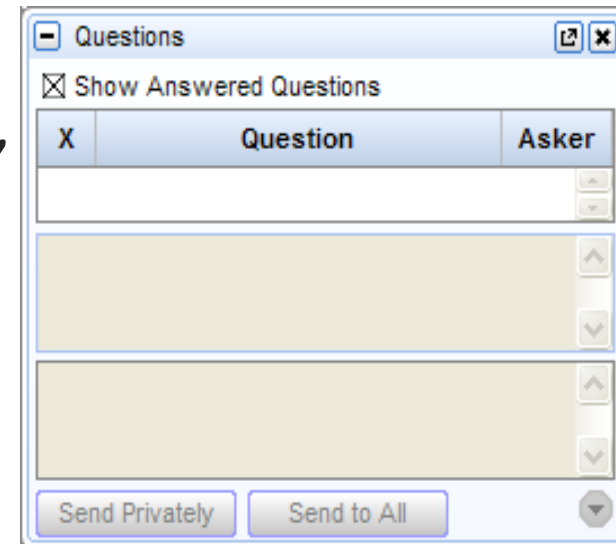


Webinar Agenda

- Introduction and webinar logistics
- To support small businesses and other low emitters in calculating their carbon footprint, this webinar will cover the fundamentals of developing an organization-wide greenhouse gas (GHG) inventory and how to ensure GHG data consistency over time to help track progress towards reaching emissions reduction goals.
- Speakers:
 - John Sottong, U.S. EPA
 - Shane Reilly, Rivanna Natural Designs
 - Steve Wright, High Point Furniture Industries, Inc.
- Q&A
- Post-webinar survey

Webinar Logistics

- Attendees are muted to reduce background noise.
- Submit questions and comments in writing via the online control panel. →→ →
- To minimize or maximize the control panel, click on the button at the top left of the tool bar.
- Post-webinar survey on this webinar and topics for future webinars.
- Today's presentation will be available at: <http://www.epa.gov/climateleadership/events>





About the Center

- A resource launched in 2012 to support organizations of all sizes in measuring and managing GHG emissions.
- Provide technical tools, ground-tested guidance, educational resources, and opportunities for information sharing (e.g., Webinars) and a platform for peer exchange.
- Promote practices and innovative approaches drawing upon the successes of Climate Leadership Award recipients and former Climate Leaders partners.
- Support the implementation of E.O. 13514.

Climate Leadership Awards

Climate Leadership Awards

- Co-sponsor Awards with the Association of Climate Change Officers, the Center for Climate and Energy Solutions (C2ES), and The Climate Registry.
- Awards recognize exemplary corporate, organizational, and individual leadership in addressing climate change.
- EPA is also the headline sponsor for the Climate Leadership Conference.



Basics of Developing a GHG Inventory

A GHG inventory lists all emissions sources and their associated emissions using standardized quantification methods:

Required Sources

Corporate-wide (all U.S. operations)

6 major GHGs: CO₂, CH₄, N₂O, HFC, PFC, SF₆

Direct emissions (Scope 1)

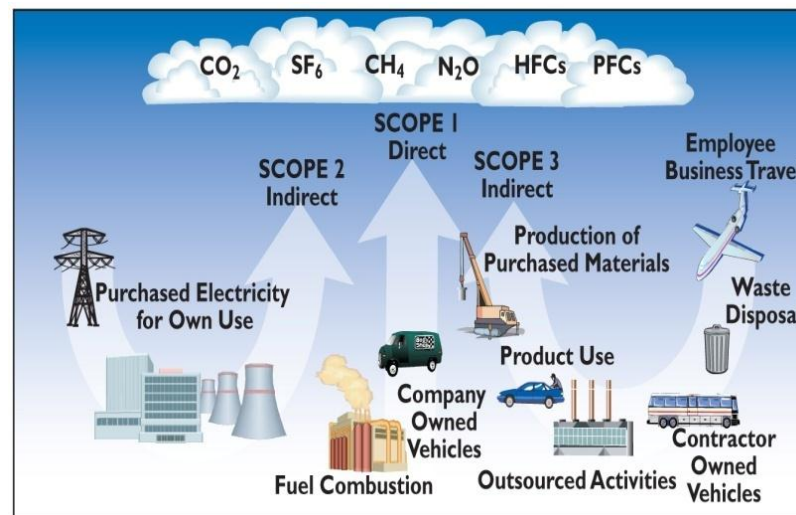
Indirect emissions from electricity, heat, and steam (Scope 2)

Optional Sources (Scope 3)

Employee Business Travel

Product Transport

Outsourced Activities





Developing a GHG Inventory: Define Organizational Boundaries

Which facilities should you include?

- Equity Share Approach (by ownership)

OR

- Control Approach (by control)
 - Operational control versus Financial control

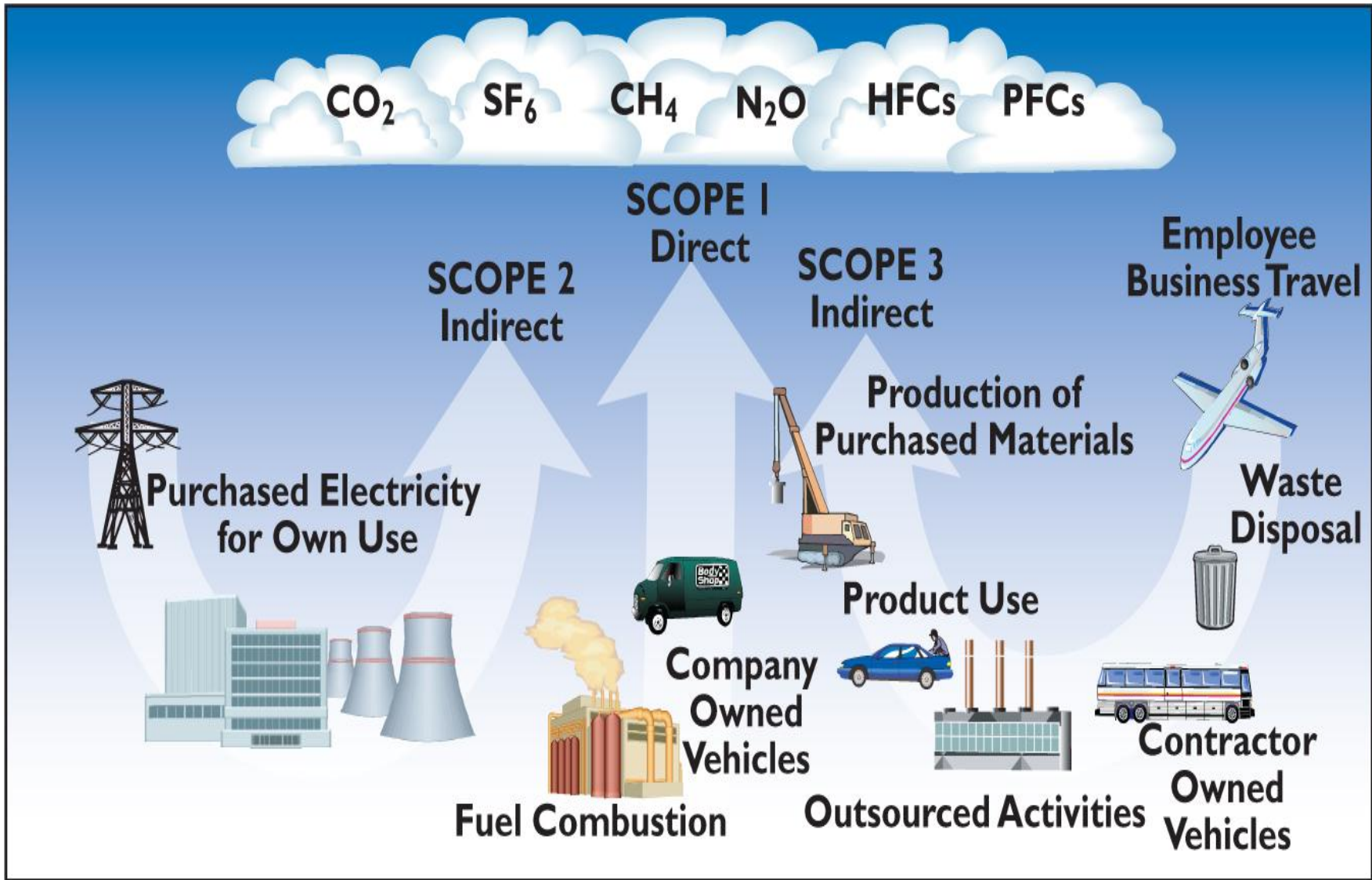
! Answering this question is particularly important for small businesses when determining how to handle leased offices or facilities.



Developing a GHG Inventory: Define Operational Boundaries

Establish the sources of GHGs within your boundaries:

- Stationary Combustion of fossil fuel
- Process emissions (if applicable)
- Mobile Sources
- Refrigeration/AC
- Purchased electricity and steam
- Other Sources: backup generators, fuel for heating, corporate aircraft, anaerobic wastewater treatment
- Optional Sources (e.g., business travel)





Developing a GHG Inventory: Choose a Base Year

- The Base Year is the reference point for measuring, tracking, and reporting your GHG inventory data.
- It is typically the most recent calendar year for which you have reliable data to build your GHG inventory.
- A base year is fundamental if you plan on setting a meaningful reduction goal and reporting your progress over time in a transparent and consistent manner.
- Can you adjust your base year?
 - Adjust your base year data when significant changes such as acquisitions/divestitures occur.
 - Do not adjust your base year data for organic growth/decline.

Developing a GHG Inventory: Access EPA tools

<http://www.epa.gov/climateleadership>



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Center for Corporate Climate Leadership



Learn How to Measure and Lower GHG Emissions Throughout an Organization's Supply Chain »

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EPA's Center for Corporate Climate Leadership serves as a resource center for all organizations looking to expand their work in the area of greenhouse gas (GHG) measurement and management. The Center was launched in 2012 to establish norms of climate leadership by encouraging organizations with emerging climate objectives to identify and achieve cost-effective GHG emission reductions, while helping more advanced organizations drive innovations in reducing their greenhouse gas impacts in their supply chains and beyond.

The Center also recognizes exemplary corporate, organizational, and individual leadership in addressing climate change by co-sponsoring The Climate Leadership Awards with the Association of Climate Change Officers, the Center for Climate and Energy Solutions, and The Climate Registry, and serving as the Climate Leadership Conference headline sponsor.

Tools for GHG Measurement and Management

GHG IMP Checklist

Emission Factors Hub

Inventory & Goal Tracking Form

Carbon Footprinting for Low Emitters

Emissions Calculator

Goal Evaluation Model

Engage Suppliers

The GHG Inventory Management Plan (IMP) Checklist (DOC) (4 pp, 31K) outlines what components should be included when creating a comprehensive IMP.

Highlights

- Registration Open for Feb. 13 Webinar: GHG Management Resources for Small Businesses
- Save the Date - 2014 Climate Leadership Awards and Conference, February 24-26, 2014, San Diego, CA
- Catch up on past webinars hosted by the Center for Corporate Climate Leadership
- Congratulations to the 2013 Climate Leadership Award winners!
» EPA Press Release

Climate Leadership Awards

- About the Awards
- 2013 Award Winners
- 2014 Awards and Conference

Follow The Center on Twitter:
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Developing a GHG Inventory: Calculating Emissions

How to calculate emissions:

Businesses can use EPA's *Simplified GHG Emissions Calculator*.

- Excel-based
- Free download
- Automatically calculates overall carbon footprint from most GHG emissions sources
- Accompanied by built-in help tools as well as stand-alone guidance documents tailored specifically for small businesses

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Home Insert Page Layout Formulas Data Review View Acrobat

Normal Page Layout Page Break Preview Custom Views Full Screen

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	A	B	C	D	E	F	G	H	I	J
26										
27		Summary of Company Emissions:								
28										
29			Direct Emissions							
30	Go To Sheet	Stationary Combustion				0	CO ₂ -e (metric tons)			
31	Go To Sheet	Mobile Sources				0	CO ₂ -e (metric tons)			
32	Go To Sheet	Refrigeration / AC Equipment Use				0	CO ₂ -e (metric tons)			
33	Go To Sheet	Fire Suppression				0	CO ₂ -e (metric tons)			
34	Go To Sheet	Purchased Gases				0	CO ₂ -e (metric tons)			
35										
36			Indirect Emissions							
37	Go To Sheet	Purchased and Consumed Electricity				0	CO ₂ -e (metric tons)			
38	Go To Sheet	Purchased and Consumed Steam				0	CO ₂ -e (metric tons)			
39										
40			Optional Emissions							
41	Go To Sheet	Employee Business Travel				0	CO ₂ -e (metric tons)			
42	Go To Sheet	Employee Commuting				0	CO ₂ -e (metric tons)			
43	Go To Sheet	Product Transport				0	CO ₂ -e (metric tons)			
44										
45			Total Company Emissions							
46		Total GHG Emissions (Not Including Optional Emissions)				0	CO ₂ -e (metric tons)			
47		Total Optional Emissions				0	CO ₂ -e (metric tons)			
48		Total GHG Emissions				0	CO ₂ -e (metric tons)			
49										
50			Reductions							
51	Go To Sheet	RECs and Green Power Purchases				0	CO ₂ -e (metric tons)			
52	Go To Sheet	Offsets				0	CO ₂ -e (metric tons)			
53										
54		Net GHG Emissions				0	CO ₂ -e (metric tons)			
55										
56			Required Supplemental Information							
57										
58		Biomass CO ₂ Emissions from Stationary Sources				0	CO ₂ -e (metric tons)			
59		Biomass CO ₂ Emissions from Mobile Sources				0	CO ₂ -e (metric tons)			
60										
61										
62										
63										

Introduction Boundary Questions **Summary** Stationary Combustion Mobile Sources Refrigeration an

Developing a GHG Inventory: Tracking Progress and Reporting

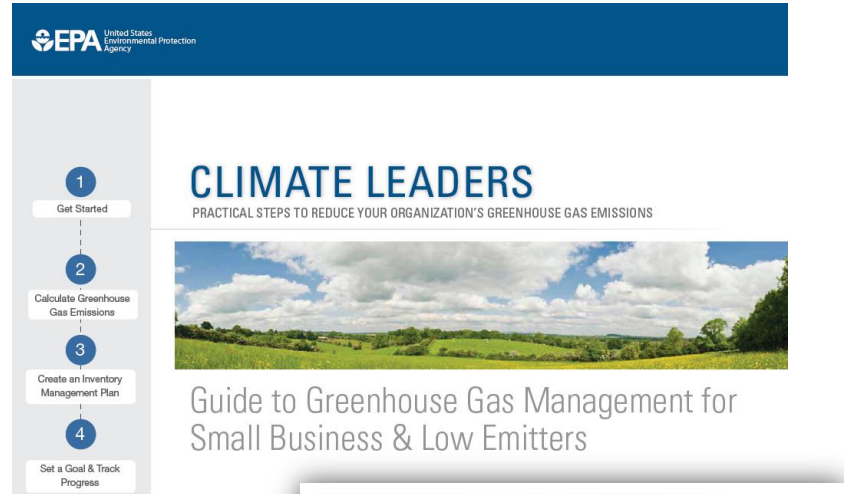
Consult EPA's tools:

- *Guide to GHG Management for Small Businesses & Low Emitters*
- *Simplified Inventory Management Plan* template

An Inventory Management Plan:

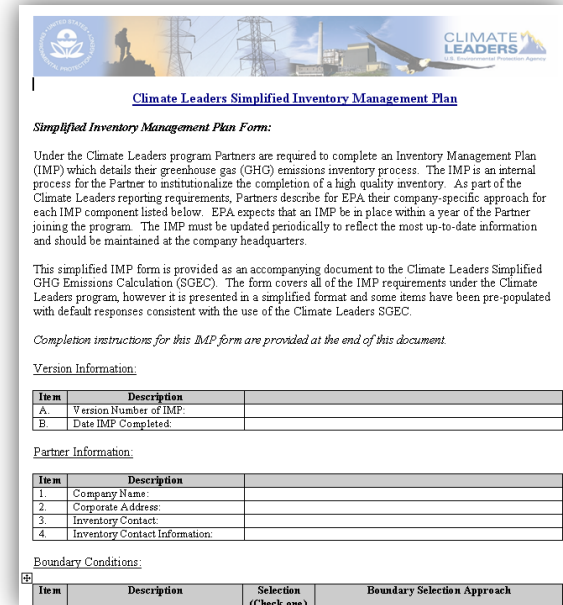
- Institutionalizes inventory process
- Serves as a "User's Manual"
- Increases accuracy and transparency
- Captures continuous improvement

www.epa.gov/climateleadership/inventory/footprint.html



CLIMATE LEADERS
PRACTICAL STEPS TO REDUCE YOUR ORGANIZATION'S GREENHOUSE GAS EMISSIONS

Guide to Greenhouse Gas Management for Small Business & Low Emitters



Climate Leaders Simplified Inventory Management Plan

Simplified Inventory Management Plan Form:

Under the Climate Leaders program Partners are required to complete an Inventory Management Plan (IMP) which details their greenhouse gas (GHG) emissions inventory process. The IMP is an internal process for the Partner to institutionalize the completion of a high quality inventory. As part of the Climate Leaders reporting requirements, Partners describe for EPA their company-specific approach for each IMP component listed below. EPA expects that an IMP be in place within a year of the Partner joining the program. The IMP must be updated periodically to reflect the most up-to-date information and should be maintained at the company headquarters.

This simplified IMP form is provided as an accompanying document to the Climate Leaders Simplified GHG Emissions Calculation (SGEC). The form covers all of the IMP requirements under the Climate Leaders program, however it is presented in a simplified format and some items have been pre-populated with default responses consistent with the use of the Climate Leaders SGEC.

Completion instructions for this IMP form are provided at the end of this document.

Version Information:

Item	Description	
A.	Version Number of IMP:	
B.	Date IMP Completed:	

Partner Information:

Item	Description	
1.	Company Name:	
2.	Corporate Address:	
3.	Inventory Contact:	
4.	Inventory Contact Information:	

Boundary Conditions:

Item	Description	Selection (Check one)	Boundary Selection Approach



EPA GHG and Energy Management Resources

- [ENERGY STAR for Small Business](http://www.energystar.gov/buildings/facility-owners-and-managers/small-biz)
<http://www.energystar.gov/buildings/facility-owners-and-managers/small-biz>
- [ENERGY STAR Portfolio Manager](http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager)
<http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>
- [EPA's Landfill Methane Outreach Program](#)
- [EPA's SmartWay](#)
- [E3: Economy, Energy, Environment](#)
- [The U.S. Department of Energy's Advanced Manufacturing Office](#)
provides a variety of programs that identify opportunities for integrating energy-efficiency measures into industrial facilities.
- Some local utility rebate programs provide incentives that allow suppliers to recoup some upfront costs associated with improving energy efficiency and reducing GHG emissions.

Additional Resources

- [LMI's GAIA Sustainable Supply Chain Maturity Model](#) provides companies with a framework to assess the maturity of their own organizations and programs for engaging suppliers on managing their GHG emissions, based on industry research.
- [The Carbon Disclosure Project](#) and its [CDP Supply Chain Project](#) initiative are programs for voluntary, public reporting of corporate GHG emissions inventories. The flagship CDP focuses on emissions disclosure by large corporations; CDP Supply Chain serves its member companies by collecting emissions inventories from their suppliers.
- [World Resources Institute/World Business Council for Sustainable Development Product and Supply Chain Protocol Standards](#). WRI and WBCSD developed the GHG Corporate Protocol Standard, which is widely used to account for corporate-wide GHG emissions.
- [The 2011 Electronics Industry Citizenship Coalition Report: A Practical Approach to Greening the Electronics Supply Chain: Results from the 2011 EICC Carbon and Water Reporting Initiative](#). Insights into how the electronics industry sector is engaging its suppliers on managing their GHG emissions.

Rivanna Natural Designs

- We began in 2001 with one objective: to create green jobs for refugees and others in our community who needed safe, meaningful, and rewarding employment. Today, we design and create awards, plaques, and gifts from planet-friendly materials and ship them to government, corporate, and academic clients in 48 states.
- We're a Virginia Benefit Corporation, a Certified B Corp, and a WBENC-certified, 100% woman-owned business. We strive to bring fresh light and healthy air to a small corner of the awards industry with elegant, innovative designs that uphold our commitment to our planet and community.

About Us:

Employees: 8
Offices: 1
Sq-Ft: 4,007

Direct Emissions: Natural Gas
Indirect Emissions: Electricity



GHG Emissions Calculator: What, Why, and Where?

- What is it?
 - A tool that allows you to visualize and track both your company's direct and indirect greenhouse gas emissions through the tracking of your different forms of emissions (electricity, natural gas, AC/refrigeration, etc.)
- Why is it helpful?
 - The tool converts your data into metric tons of CO₂ which allows you to easily track your emissions data over a given period of time. By tracking and visualizing your emissions, you will have a much easier time determining where changes and adjustments in your workspace need to be made in order to effectively and efficiently reduce your GHG output.
- Where to start?
 - Operational Boundary: Decide what types of direct and indirect emissions sources your company would like to include.
 - Setup a baseline year.
 - Keep track of data (utility bills, receipts, meter readings).



Emissions Reduction: What Works For Us

- Biggest sources: electricity and natural gas (very easy to track)
 - Monthly utility bills
- Start with the Main GHG Contributors:
 - HVAC system: installed a programmable thermostat to better control the temperature in our office when no one is here.
 - Large machinery: Circuit breakers are turned off at the end of day.
 - Small machinery: unplugged at the end of the day to ensure there is NO current draw overnight.
 - Computers: all office computers are setup with power-saving options to ensure they are placed in a low power state while not in use.
 - More energy efficient task lighting/bulbs.
- Purchase of Renewable Energy Credits:
 - We purchase enough RECs each year to fully reduce our yearly carbon emission to zero.
 - 1 Mega-Watt hour of renewable energy, equal to a single REC, purchased through our providers Green Power program prevents 18,828 pounds of carbon dioxide emissions.



Steve Wright

Human Resources Manager

Goes Great With Work®

1121 Corporation Dr, High Point,


Casegoods Facility





1104 Bedford St, High Point, NC 27263

Seating Facility & Corporate Offices

 High Point Furniture Ind Inc

Environmentally Sound



SCS Global Services does hereby certify that an independent assessment has been conducted on behalf of:

High Point Furniture Industries

1104 Bedford Street, High Point, NC, USA

For the following product(s):

See Addendum

This product meets all of the necessary qualifications to be certified for the following claim:

level® 2

Conforms to the ANSI/BIFMA e3-2012 Furniture Sustainability Standard

Registration # SCS-SCF-02987

Valid from: March 17, 2013 to March 16, 2016



SCSglobal
SERVICES

A handwritten signature in black ink that reads 'Robert J. Hrubes'.

Robert J. Hrubes, Ph.D., Executive Vice President
SCS Global Services
2000 Powell Street, Ste. 600, Emeryville, CA 94608 USA



Challenges



- Small company, limited resources
- Who do you go to for data/information?
 - Accounting (Utility statements)
 - Plant Management (Material efficiency/waste)
 - Purchasing (Waste disposal/recycle)
- Data conversions



Q&A



Contact Us

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For more information, visit www.epa.gov/climateleadership

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