



Supply Chain Energy & Climate Initiatives

September 24, 2008
ENERGY STAR Monthly Partner
Web Conference

Call-in Number: 1-866-299-3188
Conference Code: 202 343 9965

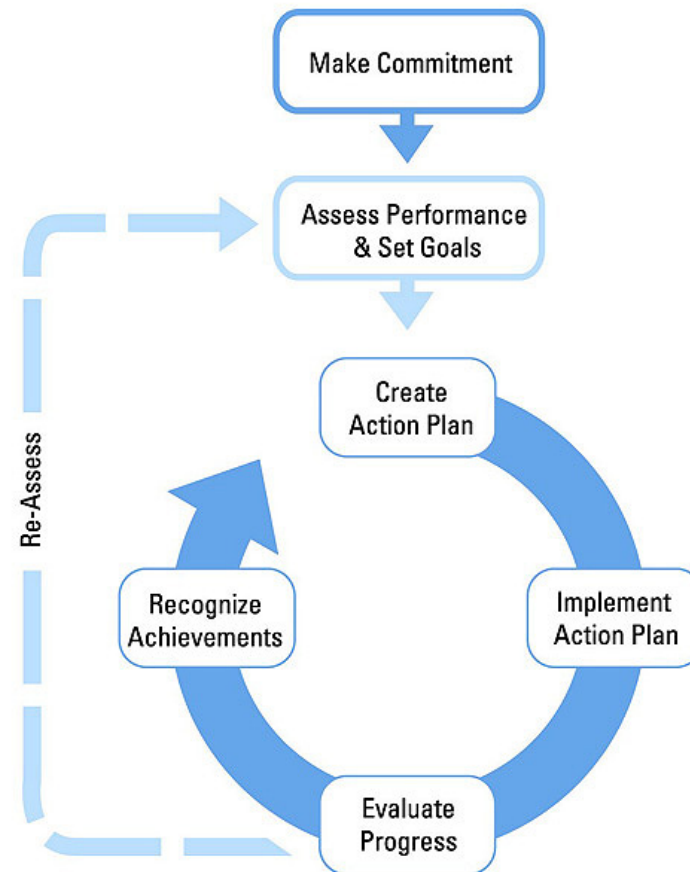


Learn more at energystar.gov

About The Web Conferences



- Monthly
- Topics are structured on a strategic approach to energy management
- Opportunity to share ideas with others
- Slides are a starting point for discussion
- Open & Interactive



Web Conference Tips



- Mute – To improve sound quality, all phones but the presenters will be muted.
- Use # 6 to un-mute and * 6 – to mute
- Presentation slides will be sent by email to all participants following the web conference.

Supplier Initiatives

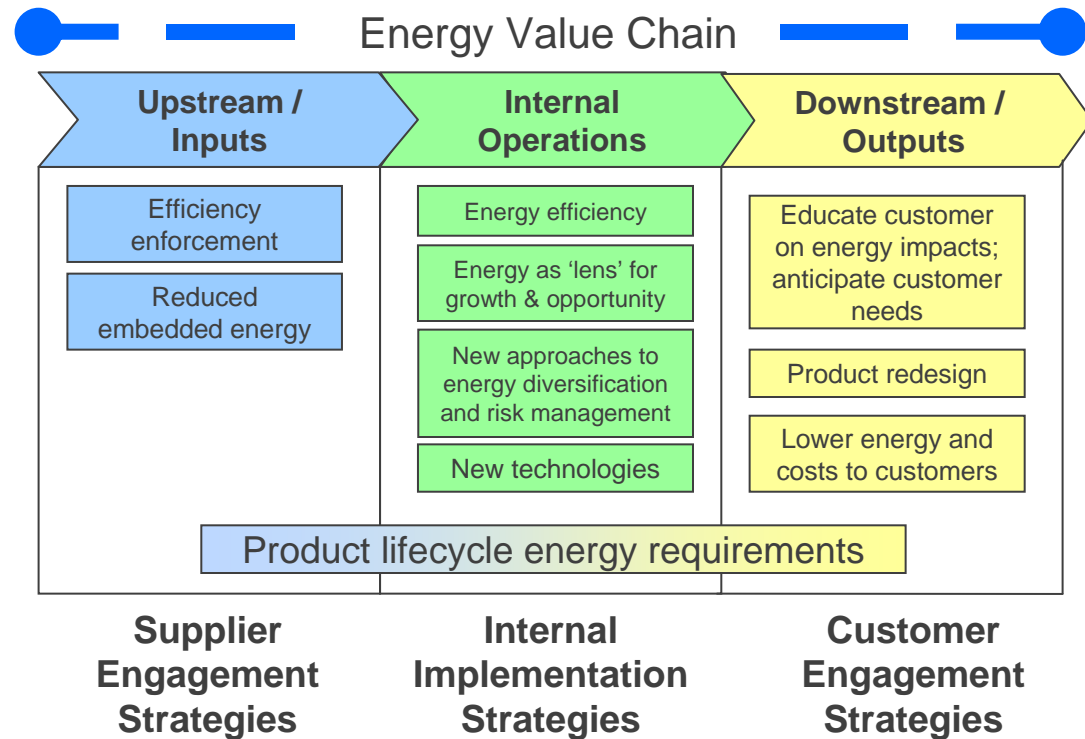
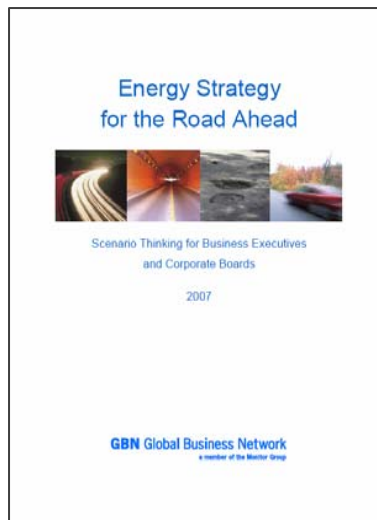


- Tremendous growth in initiatives over the past year focused on energy & climate.
- Many ENERGY STAR Partners are now working with their suppliers.
- Partner Supply Chain Working Group formed this past spring.

Strategic Energy Management



Recommendation: Managing the energy value chain



www.energystar.gov/energystrategy



Supply chains vary...



- So do initiatives:
 - Parts and product component suppliers – engagement strategies
 - Services & vendors – procurement standard focused
 - Process equipment – defining specs & requirements

- So do goals:
 - Energy risk management
 - Carbon accounting
 - Driving innovation
 - Combinations of all of the above!

Today's Web Conference



Ken Roden and Richard Russell – Nissan

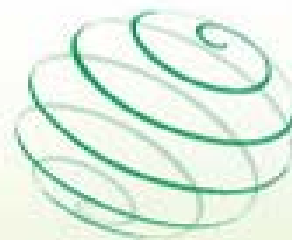
Beth Kujan – Carbon Disclosure Project

Steve Coppinger – California Portland Cement

NISSAN



Energy Partnership Program for North America Suppliers



NISSAN
GREEN PROGRAM

Seeking a symbiosis of people, vehicles and nature

Program Objectives

Demonstrate Cost Reduction Opportunities

Emphasize Rewards of Energy Management

Share Best Practices & Provide Opportunities to Benchmark Processes

Nissan Strategies

- Elevate the importance of energy management by hosting an Energy Conference for Suppliers
- Keep the momentum going through follow up, supporting participants and contacts by soliciting feedback
- Coordinate benchmarking & assessment activities to help suppliers identify areas of promise and gain management buy-in
- Support & encourage ENERGY STAR® partnerships and the use of other government resources to identify and develop energy savings programs & projects

Strategy Detail – The Supplier Energy Conference

- Adopt an “Olive Branch” approach: The relationship is one of collaboration - making each company more competitive.
- Demonstrate how ENERGY STAR can assist suppliers with energy management and provide a vision outside their industry.
- Explain why energy management should be a matter of interest at all levels in our communities:
 - Encourage participation of government officials & media
 - Tell the story; how we are affected, what we are doing about it and what roles they can play

Nissan Supplier Energy Partnership Conference



Bart Gordon
U.S. Congress
Chairman Science &
Technology Committee

Walt Tunessen
U.S. Environmental
Protection Agency
National Program Mgr

The Murfreesboro Post
Nissan receives Energy Star award
TMP Staff Reports-April 4, 2008

SMYRNA — Nissan was awarded the Environmental Protection Agency's Energy Star award for the second time Friday, April 4.

The automaker was presented the award by U.S. Rep. Bart Gordon (D-Tennessee) during the first-ever Nissan North America Supplier Energy Conference.

Nissan hosted the conference to share information on best practices and solutions for saving energy, money and the environment with its supplier base.

Nissan has made significant progress in establishing a comprehensive, measurable energy management program that is reducing environmental impacts, controlling energy costs, improving operational efficiency and reducing internal energy risk, said the automaker. Nissan's manufacturing facilities will reduce energy use by 30 percent over the next four years.

Nissan's plants in Smyrna and Canton were among the first U.S. auto assembly plants awarded the Energy Star for being in the top 25 percent of energy performers in the industry. Nissan is encouraging this momentum to continue through its supply base.

EPA offers Nissan suppliers energy tips Ap Associated Press

Print | Print | Single Page | Text size - +

April 4, 2008

SMYRNA, Tenn.—An energy consultant tells Nissan Motor Corp. suppliers that saving energy can start with something as simple as turning off lights on soft drinks and snack machines.

Fred Schoeneborn, an Environmental Protection Agency energy consultant, said after touring Nissan's assembly plant in Smyrna on Friday that everyone in the workplace has to be involved.

He spoke at a conference where Nissan executives shared their energy-saving ideas with dozens of their suppliers.

He noted Nissan had their lights and vending machines unlit, in addition to numerous other reductions in lighting and use of equipment.

Nashville-based Nissan North America Inc. builds the Altima coupe and sedan, Frontier pickup, Xterra sport utility vehicle, Pathfinder SUV, and Maxima sedan at the Smyrna plant.

Nissan also builds vehicles in Canton, Miss. ■

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NISSAN
NNA FIRST ANNUAL SUPPLIER ENERGY PARTNERSHIP CONFERENCE
April 4, 2008

- Alcoa, Inc.
- ArcelorMittal USA
- Bridgestone Firestone Americas
- Calsonic North America Inc
- CB Richard Ellis
- Johnson Controls Inc
- Lear Corporation
- Martinrea International, Inc.
- M-TEK INC
- NTN Bearing Corporation of America
- PK USA Inc
- PPG-Kansai Automotive Finishes
- Robert Bosch, LLC
- Tower Automotive
- Unipres North America, Inc.
- Unisia Steering Systems
- United States Steel Corporation
- Visteon
- Yates Services
- Yazaki North America Inc
- Yokohama Continental Tire
- Yorozu Automotive Tennessee
- Middle Tennessee State University

Onsite Supplier Energy Partnership Conference



NISSAN
NNAS ONSITE SUPPLIER
ENERGY PARTNERSHIPS



*Whelan Security
Tower Automotive
SLC
CKNA
WWL
Visteon
QEK
Unipres
PPG
IWT (Nalco)
GCA Services
Aramark
Yates Services
Hagameyer
TI
Training Center
Activity Center
Smyrna Flight Center Hanger*

September 10, 2008



Strategy Detail – The Supplier Energy Conference

Follow Up – *things to consider*

- Formal feedback survey from conference
- Contacts from media articles & referrals
- Supplier contact exchange for follow-up & support

Strategy Detail- Benchmarking & Assessments

- Evaluate and share best practices from each company
- Coordinate future benchmarking & assessment needs
- Program Coordination with Nissan Supplier VNO
Value Network Optimization

Strategy Detail – Nissan Collaboration with Universities

Middle Tennessee State University

- Energy Conference
- MTSU Student energy fair
- Tennessee State Board of Regents
- Future co-op opportunities at Nissan

Mississippi State University

- Supplier assessment support (DOE's ESA program)
- Industrial Outreach Service

Supplier Example: University of Maryland (Bowles Fluidics)

- Partner for solar project support

Strategy Detail

Collaboration with MTSU



Strategy Detail

Collaboration with Mississippi State University to Support Supplier Energy Assessments



INDUSTRIAL ASSESSMENT CENTER

Mississippi State University
P.O. Drawer ME
210 Carpenter Engineering
Mississippi State, MS 39762

Mississippi State
UNIVERSITY
industrial outreach
SERVICE

*Helping Mississippi industry become
more productive and competitive in
today's global economy.*

Putting Knowledge into Action



Strategy Detail - Encourage Use of Government Resources

- DOE “Save Energy Now” Assessments
- TVA Energy Assessment Program
- Energy Independence & Security Act of 2007
- Partner with Utility Providers

Strategy Detail - Encourage ENERGY STAR Partnerships

ENERGY STAR

SUPERIOR ENERGY MANAGEMENT CREATES ENVIRONMENTAL LEADERS
U.S. Environmental Protection Agency

About ENERGY STAR - News Room - FAQs - **KIDS**

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Buildings & Plants

Guidelines for Energy Management

- Make Commitment
- Assess Performance
- Set Goals
- Create Action Plan
- Implement Action Plan
- Evaluate Progress
- Recognize Achievements

Tools & Resources Library

- Expert Help
- Commercial Building Design
- Green Buildings

Getting Started for...

- Commercial Real Estate
- Corporate Real Estate
- Government

Home > Buildings & Plants > Guidelines for Energy Management Overview

Guidelines for Energy Management Overview

EPA offers a proven strategy for superior energy management with tools and resources to help each step of the way. Based on the successful practices of ENERGY STAR partners, these guidelines for energy management can assist your organization in improving its energy and financial performance while distinguishing your organization as an environmental leader.

The steps:

- STEP 1: [Make Commitment](#)
- STEP 2: [Assess Performance](#)
- STEP 3: [Set Goals](#)
- STEP 4: [Create Action Plan](#)
- STEP 5: [Implement Action Plan](#)
- STEP 6: [Evaluate Progress](#)
- STEP 7: [Recognize Achievements](#)

Need help getting started?

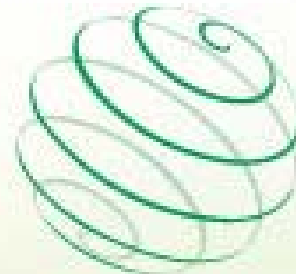
Use our [Energy Program Assessment Matrix](#) which is designed to help organizations and energy managers compare their energy management practices to those outlined in the Guidelines. Corporate or organizational level energy managers can use the [Facility Energy](#)

```

graph TD
    A[Make Commitment] --> B[Assess Performance & Set Goals]
    B --> C[Create Action Plan]
    C --> D[Implement Action Plan]
    D --> E[Evaluate Progress]
    E --> F[Recognize Achievements]
    F --> A
    F -- Re-Assess --> B
  
```

Why partner with the supply chain?

- Promote collaboration on cost reduction
- Scale up efficiency improvements
- *Serendipity* – you find things you're not looking for
- Greening the enterprise
 - reduce the total energy/carbon content of products



NISSAN GREEN PROGRAM

Seeking a symbiosis of people, vehicles and nature

Nissan's philosophy toward the environment, "Seeking a symbiosis of people, vehicles and nature," describes our ideal for a sustainable mobile society, now and in the future. We launched the Nissan Green Program with specific objectives to realize this goal, and we are pursuing it energetically.

To contribute to the creation of a sustainable mobile society, Nissan continues to seek new ways to address environmental challenges. Our primary focus at the moment is a reduction in CO2 emissions. We are taking action not just for the present generation but for future ones as well, striving to preserve our global environment.

http://www.nissan-global.com/EN/ENVIRONMENT/GREENPROGRAM_2010/index.html



Questions & Discussion

Use # 6 to un-mute phone



CARBON DISCLOSURE PROJECT

Roadmap for Reducing Carbon Emissions

Beth Kujan

Account Manager, Supply Chain Americas

Speaking to ENERGY STAR September Partner Meeting

Outline

- Project Drivers
- Value Propositions
 - Requesting companies
 - Responding companies
 - CDP observations
 - Investors awareness of supply chain data
- How answers are analyzed
- Pilot Study Results

Today's
speaker

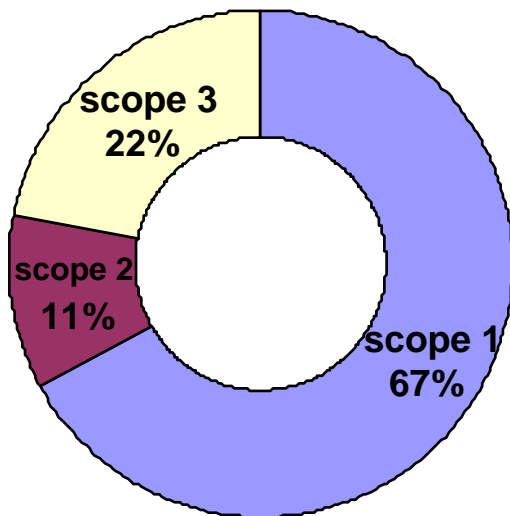


11/18/2008

2

CDP Project Drivers in 2006

First year ever, scope 3 emissions reporting showed a larger value than scope 2 emissions



Investor CDP
S&P 500 Emissions
Reporting by Scope
11/18/2008

Walmart came to CDP and asked if we would collect their scope 3 emissions

This has given CDP more motivation to work on

- Corporate Supply Chain
- Public Procurement
- Cities Project

Value Proposition for Requestor

- **Strategic Benefits**

- **Identify business liabilities**, especially suppliers that will be unable to deal with rising costs and required adaptation
- **Identify business opportunities** (selling technology, working to improve a suppliers efficiency and sharing the savings)
- **Develop supplier rating**
- **Discussions and interest groups** that develop best practices, keep apprised of standards developments, etc

- **Tactical Benefits**

- **Find sources of waste** that can be trimmed
 - Identification of hot-spots to be studies
- **Reports provides benchmarking data**; identify metrics
- **Solicit direct assistance from suppliers** in meeting corporate reduction goals

11/18/2008

4

Bloomberg publicizes Supply Chain CO2e

Investors view
of Company
Supply Chain
Emissions



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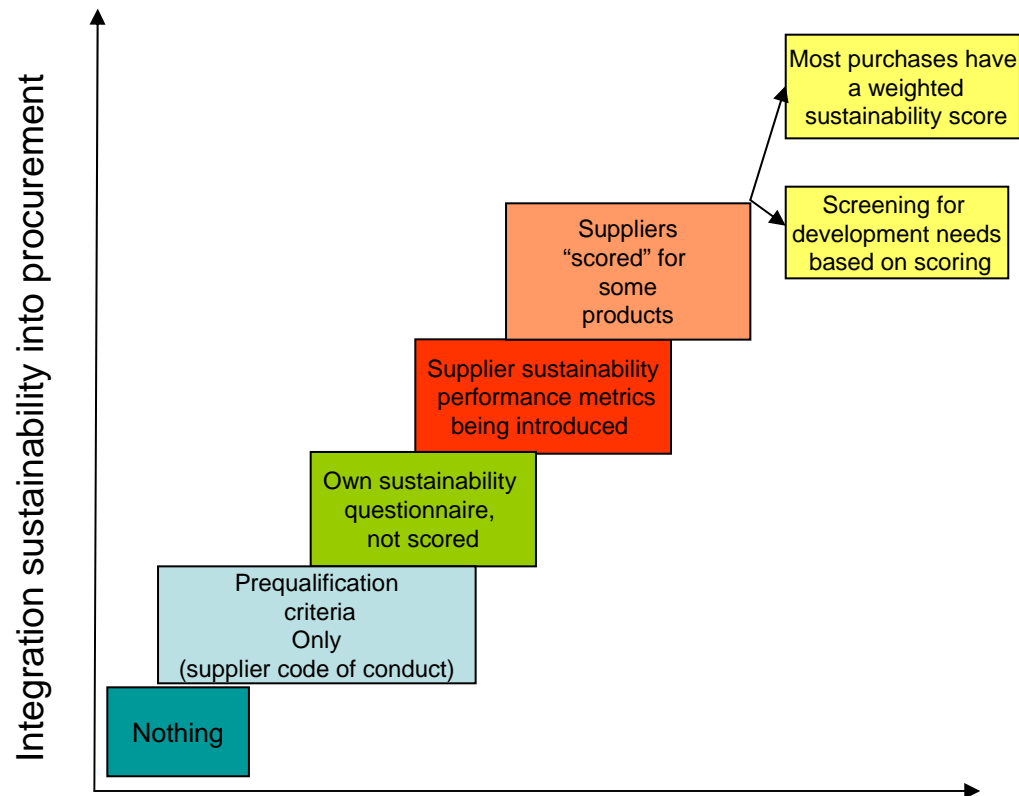
RDSA LN Equity		Carbon Emissions Disclosure - CED	
ROYAL DUTCH SHELL PLC-A SHS		Reporting Year: 2008	
Total Global Emissions (Metric Tons)		Intensity (Metric Tons/Million US\$)	
Scope 1 Activity Emissions Globally	92,000,000	Scope 1/Sales	259
Scope 1 Activity Emissions Annex B	59,000,000	Scope 1/EBITDA	N.A.
Scope 2 Activity Emissions Globally	13,000,000	Scope 2/EBITDA	N.A.
Scope 2 Activity Emissions Annex B	12,000,000		
Emissions from Disposal of Services	743,000,000	Emissions by Country (Metric Tons)	
Emissions from Distribution/Logistics	N.A.	<input checked="" type="radio"/> Scope 1 <input type="radio"/> Scope 2	
Emissions from Employee Business Travel	180,000		
Company Supply Chain	N.A.		
Electricity Purchases (Megawatt Hours)			
Global Electricity Use	21,000,000	EU Emissions Trading (Metric Tons)	
Global Electricity Use Annex B	20,000,000	Year	↓ Allowance Emissions
Electricity from Renewables	N.A.	2005	23,390,965 21,539,542
Electricity from Renewables - Annex B	N.A.	2006	23,240,924 20,372,618
Total Costs of Energy Consumption (US\$)*	9,000	2007	25,782,367 22,439,661
% of Total Operating Costs	N.A.	2008	21,542,028 N.A.
% Energy Costs from Renewables	N.A.		

Metric Ton is in CO2 Equivalent * In Millions

Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000
 Copyright 2008 Bloomberg Finance L.P.
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Supplier Sustainability Performance Management



- Most SCLC members are still in the early phases of incorporating sustainability into their supplier performance measurement
- **Telecommunications and retail industries very active**

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6



Value Proposition for Responder

- **Strategic Benefits**
 - **Facilitate transparency for**
 - **Maintain the credibility of sustainability claims**
 - **Prepare for impending regulation**
 - particularly mandatory reporting requirements
 - **Reports provide strategic insight**
 - **Visibility as a lead corporation in the sector**
- **Tactical Benefits**
 - **Find sources of waste that can be trimmed**
 - **Provides benchmarking data**

Pilot Supply Chain Study

- October 2007 – February 2008
- 13 companies participated
- 328 Suppliers
 - Average response rate 44%
 - Multiple requests yields a response rate of 68%
- Report is available

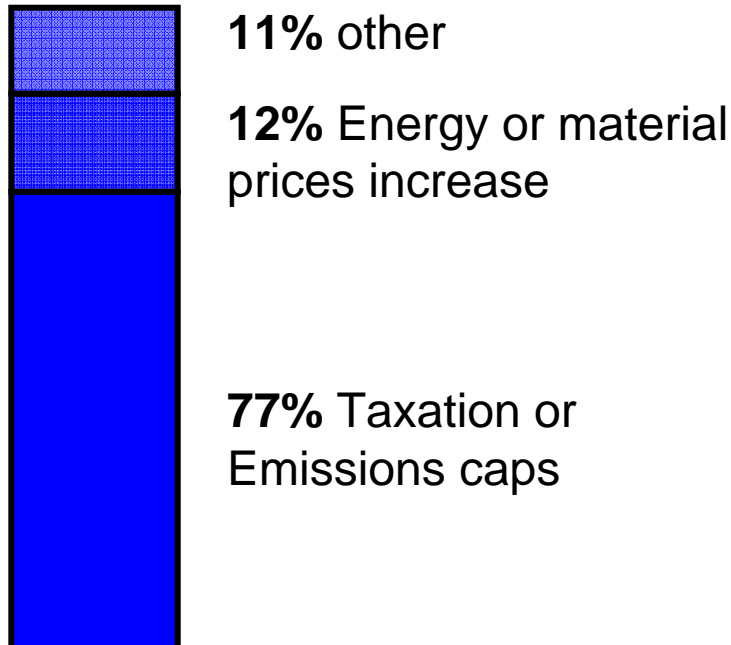
http://www.cdproject.net/download.asp?file=CDP_SCLC_Pilot_Report.pdf

The Difference Between Product and Supply Chain Footprinting
By Ryan Schuchard
ClimateBiz News: June 26, 2008

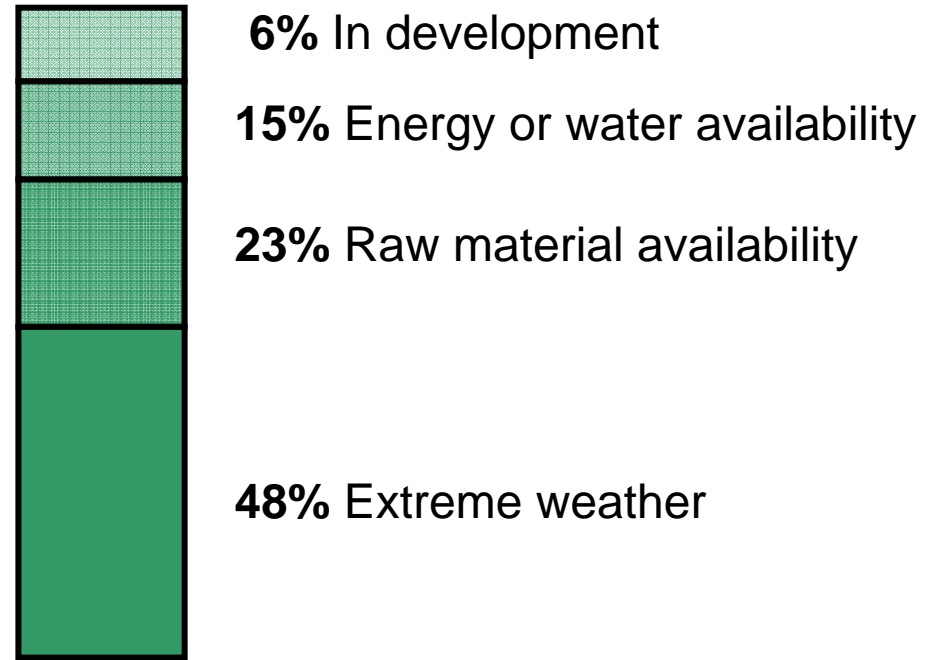
Supply Chain Leadership – pilot results

Most respondents identified risks to their operations from impending climate change

Regulatory risk (96%)



Physical risk (87%)

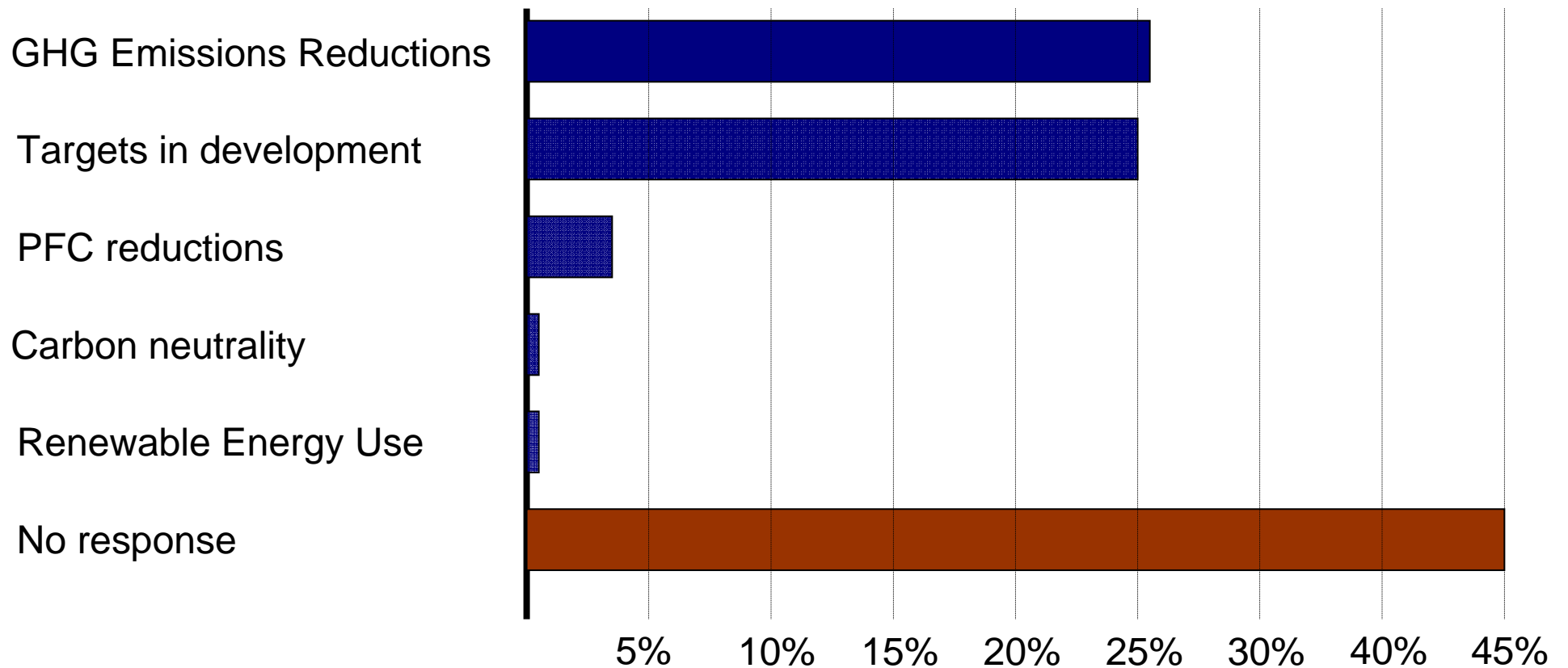


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9

SCLC Pilot

Emissions reduction targets

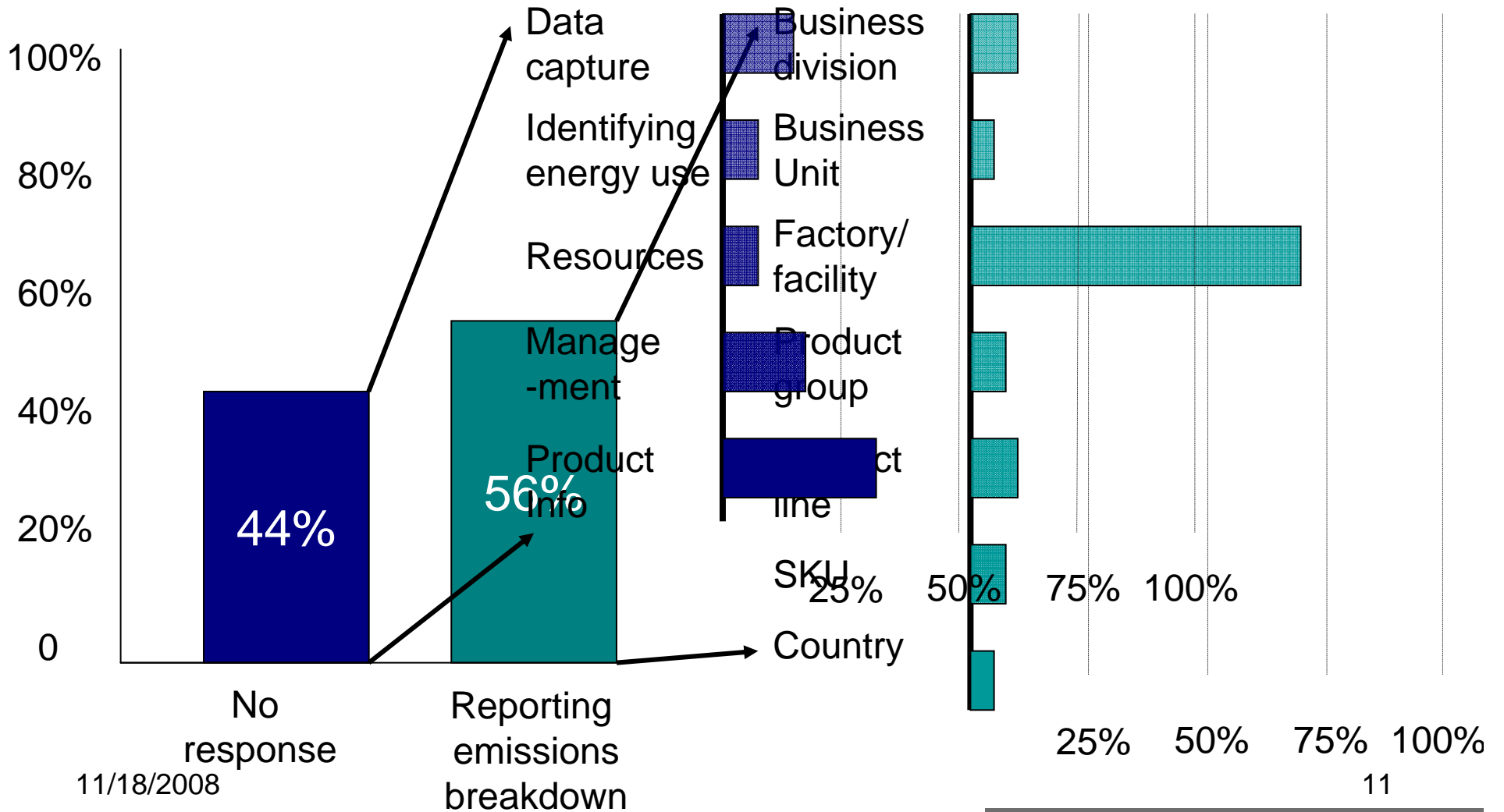


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10

SCLC Pilot

Breakdown of Emissions



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Summary: Achieving A Sustainable Supply Chain

Strategy decisions

- carbon labeling
- baseline scope 3 emissions
- voluntary cap-and-trade prep
- impending regulation prep

Join Supply Chain CDP

Identify Suppliers

Suppliers report risk and opportunities

- joint targets
- accessible data
- joint scorecards
- best practices

Suppliers risk can be re-evaluated
Product labeling can be devised
Logistics can be improved

Emissions Reduced
Money Saved

Climate &
humanity
suffer
less

12



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CARBON DISCLOSURE PROJECT

Thank you for your time

beth.kujan@cdproject.net

973.449.1142

http://www.cdproject.net/sclc_home.asp

SCLC08 members



11/18/2008 Boeing, Newmont Mining, 2 Brazilian utilities



Cement Industry Supplier Initiative

Steve Coppinger, California Portland
Cement Co.



Learn more at energystar.gov

Cement: long-term energy strategy engages suppliers to affect embedded energy



- ENERGY STAR Focus on Energy Efficiency in Cement Manufacturing
 - Energy intensive, >\$1.2 billion spent per year on energy
 - Meet as an industry regularly on energy efficiency in the sector
 - Through the Portland Cement Association
 - Through EPA ENERGY STAR Focus
 - Initial action in the EPA focus developed a national benchmarking tool for U.S. plants
 - National EPA recognition available through ENERGY STAR

Long-term energy strategy planning

- a major activity for the cement focus



- Majority of energy use is in our equipment
 - Kiln systems, grinding systems, conveying equipment, etc.
- Suppliers design our equipment
- We all purchase the same equipment from a small group of suppliers.
 - As a group of buyers, we have influence.
- Supplier initiative
 - Key ENERGY STAR focus activity started in 2007
 - ongoing

Supplier initiative activities



- Step One. Assembled:
 - List of all vendors
 - List of equipment
 - Common set of energy metrics that companies in the industry can request of suppliers
 - E.g., mmbtu/ton of clinker processed
- Step Two. Outreach to vendors
 - Raise awareness of need for energy efficiency in vendors' products
 - Raise awareness of need for vendors to internalize energy efficiency in their own operations
- Step Three. Issue letter from industry CEOs to CEOs of major vendors requesting use of these metrics and attention to energy efficiency in their products and operations.

Next steps



- Lifecycle costs for equipment procurement
- Weighing energy efficiency as part of the bidding process
- Develop design criteria for efficiency
- And who knows where we'll go after this.....

Supplier Initiative Resources



Supply Chain Working Group Web site on www.energystar.gov

EPA's Green Supplier Network:

www.epa.gov/greensuppliers/

ENERGY STAR Purchasing & Procurement Resources

www.energystar.gov/purchasing

The screenshot shows the ENERGY STAR website interface. At the top, there is a navigation bar with the ENERGY STAR logo and a search bar. Below the navigation bar, there are several tabs: "Products", "Home Improvement", "New Homes", and "Buildings & Plants". The "Buildings & Plants" tab is selected, and the "Partner Resources" sub-tab is also selected. The main content area is titled "Supply Chain Working Group" and includes a description of the group's purpose, a list of resources, and a section for "Past Supply Chain Working Group Presentations".

ENERGY STAR

Products Home Improvement New Homes Buildings & Plants

Partner Resources

Buildings & Plants Home > Buildings & Plants > Networking Opportunities > Supply Chain Working Group

Guidelines for Energy Management

Tools & Resources Library

Expert Help

Commercial Building Design

Green Buildings

Getting Started for...

- Commercial Real Estate
- Corporate Real Estate
- Government
- Healthcare
- Higher Education
- Hospitality
- Industrial
- K-12
- Retail
- Small Business
- Congregations
- Service & Products Providers

SUPERIOR ENERGY MANAGEMENT CREATES ENVIRONMENTAL LEADERS
U.S. Environmental Protection Agency

About ENERGY STAR · News Room · FAQs · **KIDS** Search Go

Home > Buildings & Plants > Networking Opportunities > Supply Chain Working Group

Supply Chain Working Group

Managing energy upstream of operations to reduce risks and improve competitiveness is an element of strategic energy management. EPA provides ENERGY STAR partners the necessary tools to identify and deploy such robust energy and environmental strategies for the future.

The Supply Chain Working Group identifies new strategies for ENERGY STAR partners to use in working with the businesses that supply components, products, and services to improve their energy efficiency. The Supply Chain Working Group provides a forum to share ideas and network through regular web-based meetings on supplier initiatives, strategies, and best practices.

To learn more about the Supply Chain Working Group, contact Walt Tunnessen at Tunnessen.walt@epa.gov.

Key ENERGY STAR Resources for Supplier Initiatives

ENERGY STAR offers many tools and resources you can leverage to build a supply chain energy initiative.

- [Energy Strategy for the Road Ahead](#) (619KB) discusses the steps all U.S. businesses should take to prepare for the energy challenges that lie ahead.
- [Energy Program Assessment Matrix](#) compares an organization's energy management practices to those outlined in the ENERGY STAR Guidelines for Energy Management. The matrix is an ideal tool for assisting suppliers in evaluating their energy programs and identifying opportunities for improvement.

Past Supply Chain Working Group Presentations:

- [PepsiCo Resource Conservation Outreach Program](#) (853 kB) — Rob Meyers & Mary White, PepsiCo
- [Raytheon's Supplier Initiatives](#) (612KB) — Dave Chamberlain
- [Toyota Tier 1 Support for Energy Reductions](#) (464 kB) — Andy Thaman, Toyota Engineering & Manufacturing NA



Upcoming Web Conferences



Month	Topic
October	Energy & Climate Risk Management
November	Energy Strategy & Project Financing
December	No web conference
January 2009	ENERGY STAR Update
February	Designing Energy Efficient Buildings

Past Presentations – See “Networking Opportunities” @ energystar.gov

2009 Web Conferences



- Have a good idea for web conference?
- Have a great energy management story?
- Have an issues your wondering about?
- Then contact: tunnessen.walt@epa.gov with some suggestions!



Thank You!

