



SmartWay 运输伙伴关系

中国绿色货运行动

货主与物流企业座谈会

Buddy Polovick

美国环保署

2015年11月5日



美国环保局与中国绿色货运的合作

- **城市 - 广州绿色卡车试点项目 2009 - 2010**
 - 与世界银行、亚洲清洁空气中心与Cascade Sierra组织合作
 - 为3家公司的6辆卡车安装了SmartWay的绿色货运技术
 - 为卡车司机提供节油驾驶培训
 - 实现了2% - 18% 的节油效果
- **省份 - 广东省绿色货运示范项目 2010 - 2015**
 - 世界银行与全球环境基金赠款，带动商业银行贷款
 - 目标- 在广东进行卡车节能技术改造
 - 包含卡车司机培训、物流改善、能力建设等内容
 - 2010年6月，组织了美国绿色货运学习考察
- **国家 - 中国绿色货运行动项目 2011 - 至今**
 - 基于广州与广东项目的经验，设计了全国项目
 - 交通部、道路运输协会、亚洲清洁空气中心与能源基金会联合关键利益相关方，促成了中国绿色货运行动项目（CGFI）
 - 举办绿色货运年会，邀请诸多相关方参与研讨
 - 2014年7月，美国环保署配合提供了培训，分享SmartWay的最佳实践与项目经验
 - 美国环保署也支持了本次货主与物流企业研讨活动（2015年11月5日）

中美气候变化工作组

- **工作组旨在促进大规模的应对气候变化挑战的中美合作，包括对已有工作的扩展。**
 - 体现了应对气候变化威胁的合作承诺，促进世界走向清洁能源经济之路
 - 中美就许多新的行动达成共识，针对重要污染源推行温室气体与大气污染物减排
- **智能电网**
- **建筑节能与工业节能**
- **碳捕捉与储存**
- **温室气体计算、报告与核准**
- **重型车与其它机动车**
 1. 加强重型车与其它机动车的能效标准
 2. 清洁燃料与机动车排放控制技术
 3. 推广清洁节能货运
 - 分享项目发展的最佳实践
 - 与相关方合作，加强项目能力
 - 加强专业技术与技术示范
 - 推广节能技术、实践与策略

美国货运行业的环境影响

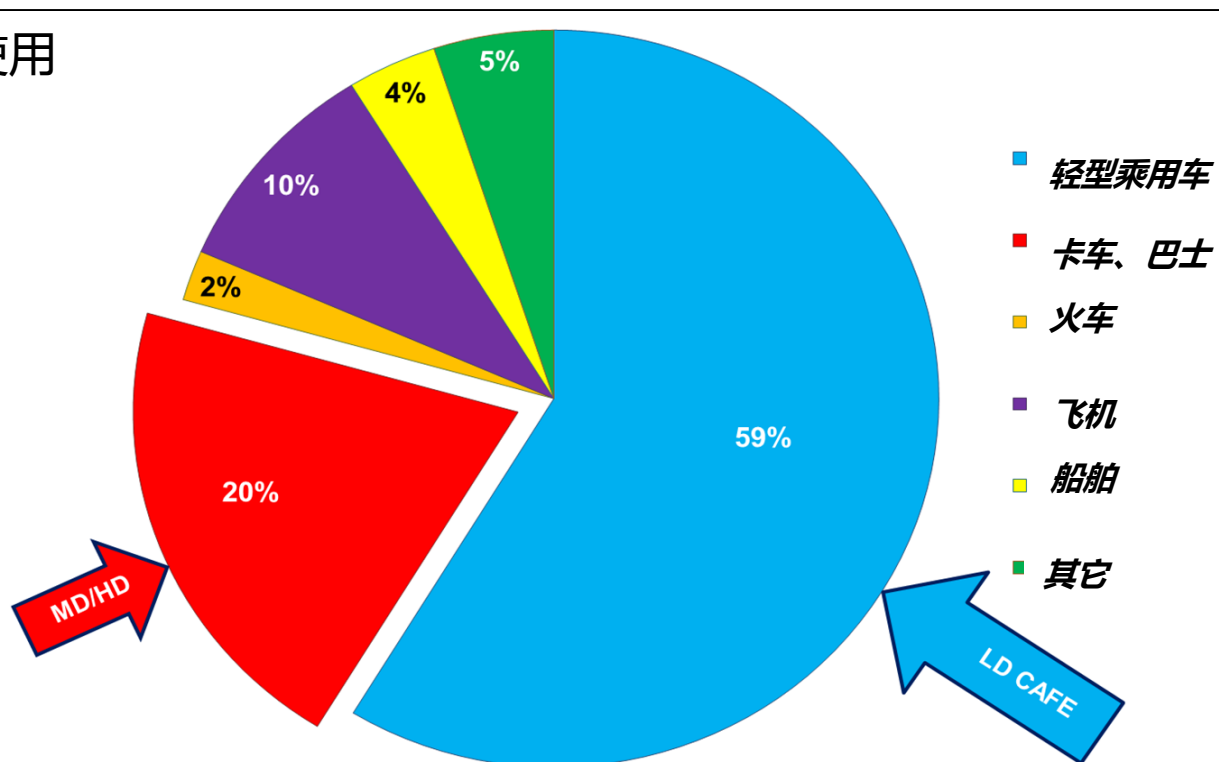
美国交通运输业：

- 占温室气体排放总量的1/4；
- 以石油为主的燃料使用约占2/3。

交通运输业：

- 货运占总燃油消耗量和温室气体排放量的25%以上
- 货运是交通运输业温室气体排放增长最快的来源

交通运输业的温室气体排放



来源：美国能源信息管理局，能源年报，2014

美国货运的经济影响

■ 货运业务是美国经济的基石

- 利用卡车和铁路交通工具运输货物和材料，推动了经济增长和发展
- 国内大宗商品和消费品运输
- 进出口
- 货运系统运行情况：
 - 176亿吨/年
 - 4830万吨/天
 - 57吨/人/年
 - 16.8万亿美元/年
 - 460亿美元/天

行业不断变化的需求

- **客户和消费者意识**
 - 要求严格的企业公民责任和问责制
- **投资方、贷款方及保险公司的要求**
 - 评估气候风险和商机
- **能源价格上涨和变动**
 - 燃油和驾驶员工资仍然是卡车运营商最大的成本部分：占2013年运营成本的38%（司机工资26%）。
- **供应链的全球化**
 - 日益增加的全球化机遇和不断加剧的竞争
 - 其他国家的碳排放报告要求

货主面临的气候变化领域风险

供应商面临的自然风险	反常天气与其它自然气候风险影响到供应商的资产与运营。包括设施与投资被毁坏的直接影响，还有生产与分销被波及的影响。
投入风险	原材料、水、能源等关键商业投入要素的可得性变差或成本增加等风险
政策风险	采购与分销市场政策变化引致的高碳资源与能源密集型活动价格增高风险
劳工与社群风险	社会、环境经济基础设施因气候相关问题被破坏，会影响到供应商的劳动力来源及生产力，影响供应方社群的人权。
形象风险	上述风险都会影响到企业及其供应链合作方的社会形象与声誉。

商业社会责任

为何碳排放数据重要？

- 碳排放计算与信息披露现在通行
 - 通过应对碳排放问题可以减少成本，增加全球竞争力，实现可持续运营
 - 减少气候风险与供应链风险
- 碳信息披露项目的发现(2013)
 - 90%成员报告了气候变化相关风险
 - 73%成员报告了减排带来的成本节约
 - 绩效评估与数据质量是成功的关键
 - 运输在各潜在的效率提升领域中最受青睐，因其投资回收周期最短
- 可持续供应链的努力将创造商业价值
 - 新产品与服务
 - 保费定价机会
 - 提升企业声誉

货主需要什么？

- 可用于优化承运人选择、供应链绩效、碳管理与碳减排的**数据**
- 用数据进行**对标与报告**的能力
 - 回应相关方与客户
 - 能够参与碳信息披露、全球报告倡议项目、企业社会责任报告
- 数据使用、严格的数据质量控制的**信誉**
- 进行数据分享的**中立方**
- **平衡的办法**, 公平竞争的环境
 - 简单、精准、透明、灵活
- **认可与激励**
 - 品牌树立、市场推广、颁奖

中国货主可以做什么？

- 承诺更多的采用CGFI认证的绿色承运商
- 在货运合同中倾向于CGFI认证的绿色承运商
- 促使更多非CGFI承运商加入该行动
- 支持承运商提高效率的努力
 - 在洽谈与商务关系中纳入绿色货运相关内容
 - 认可与激励货主的提升
- 选择更高级别的绿色承运商（例如三叶、四叶的认证企业）
- 促进同行的加入
- 公开表示进行货运减排
- 追踪、报告、减少碳排放 (CDP, GRI, CSR报告)
- 与其它货主合作，拼货、回程
- 考虑其它货运方式
- 实施运营策略
 - 减少包装
 - 工作时间外送货

SmartWay 概括

- 自2004年起，SmartWay的规模已经扩大到3000个合作伙伴，在美国和加拿大获得货运行业的广泛支持
 - 前100家美国承运商
 - 所有一级的铁路运营商
 - 主要经济行业的财富500强货主企业
 - 大型物流公司
 - SmartWay承运商拥有10%的货运车辆
 - 663,000辆 4 – 8级卡车
 - 占总货运里程的30%
 - 490亿英里/年
- 自2004年起，SmartWay合作伙伴共减少/节约：
 - 6170万公吨CO₂
 - 1,070,000吨NO_x
 - 43,000吨PM
 - 1.443亿桶石油和61亿加仑燃油
 - 206亿美元的燃油成本

SmartWay的成功要素

- SmartWay提供合适的方法
 - 简易性——标准化基准工具和方法
 - 准确性——根据CO₂、NO_x和PM减排量评估效益
 - 灵活性——多种衡量标准、多模式、多种车型以及多类别
 - 透明性——可控范围，保护敏感信息
- EPA提供可靠性和公平性保障
 - 有助于交流绩效数据并将信息传递给市场
 - QA/QC数据项目确保严谨性
- SmartWay引发市场机制
 - 利用商业案例保证货运的可持续性发展
 - 合作伙伴激励计划，如托运商要求使用清洁/绿色燃料
- SmartWay为合作伙伴提供附加价值
 - 技术认证
 - 可操作的最佳实践

更多详情：

www.epa.gov/smartway

smartway_transport@epa.gov

SmartWay Helpline

+1-734-214-4767

Buddy Polovick

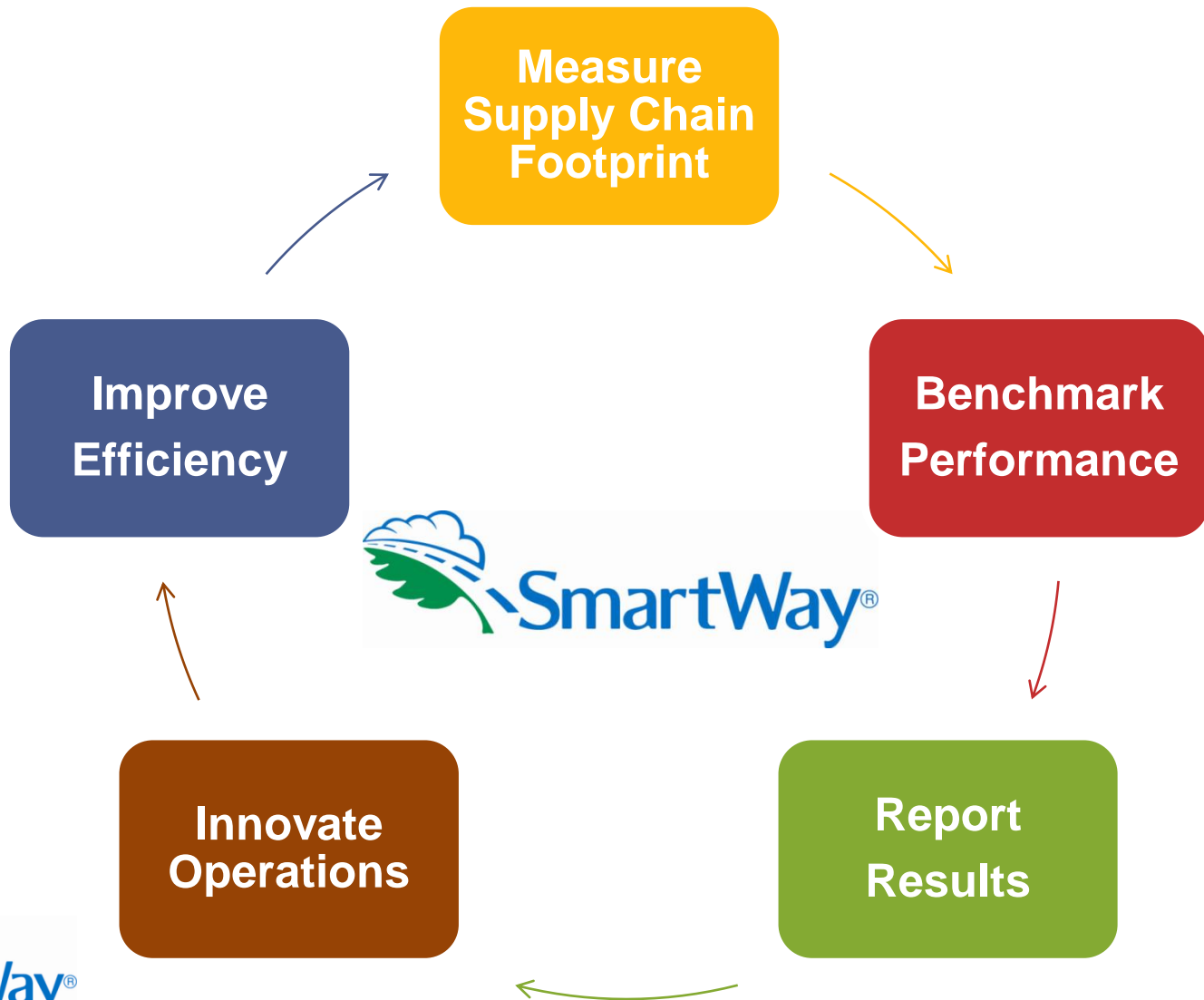
+1-734-214-4767





Appendix: No Need to Translate

How to Address Supply Chain Carbon



SmartWay is an Integrated System



- **Carrier Data Collection Tools**

- Truck, Logistics, Barge, Rail, Multimodal Suite
- **Beta Air Tool in 2015**

- **SmartWay “Process”**

- Data collection, processing, QA/QC, benchmarking
- Produces 6 emission factors for public use

- **SmartWay Database**

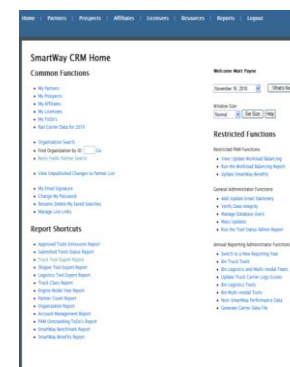
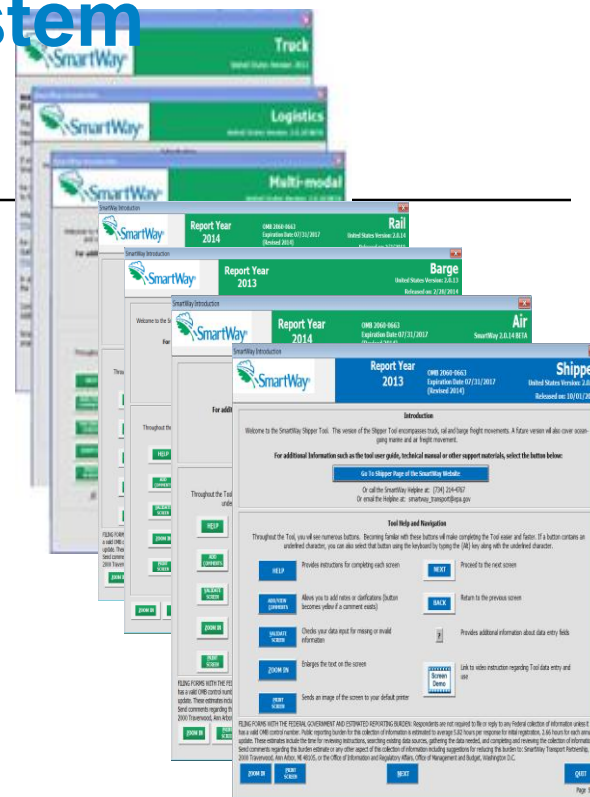
- Stores and manages all SmartWay data
- Allows industry benchmarking

- **Shipper Tool**

- Calculates carrier emission footprints for Shippers

- **SmartWay Website**

- Contains downloadable versions of all tools, user guides, technical documentation, webinars, program descriptions





Carrier Data Collected

- Short Haul vs. Long Haul
- Fuel types and gallons consumed
- Particulate Matter Reduction (pre-2006)
- “Cube Out” Percentage
- Model year and truck class
- Miles (revenue and empty)
- Average Payload (Tons) – Cargo Weight Only
- Average Capacity Volume (Cubic Feet)
- Percent Capacity Utilization (Excluding Empty Miles)
- Road Type / Speed Categories
- Average Annual Idle Hours per Truck

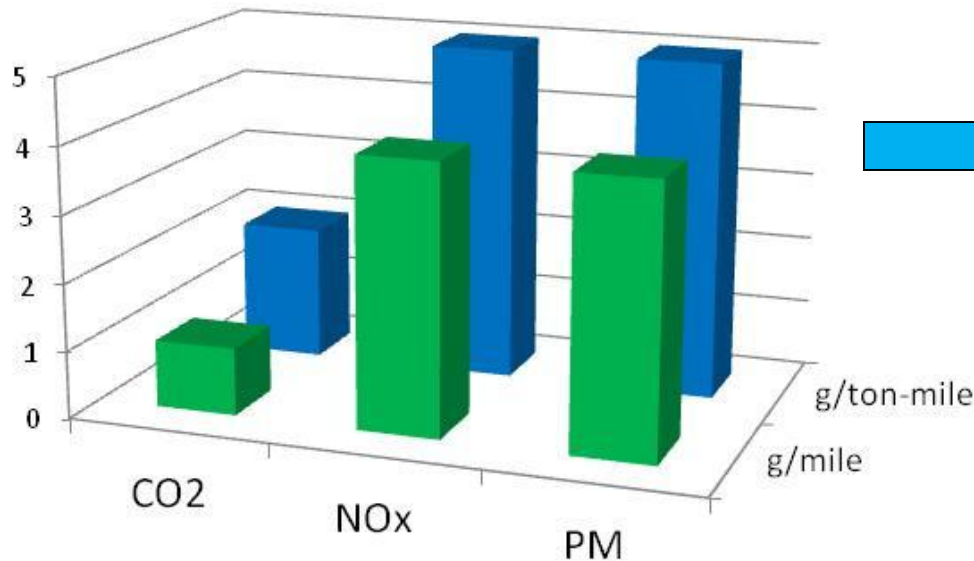
SmartWay Carrier Benchmarking

15 Carrier Categories

- TL, LTL, Refrigerated, Tanker, etc.

6 Emission Factors

- 2 metrics x 3 pollutants



Quintile Rankings

(ex: Truckload CO₂ g/mile)

Top 20% TL
Dry Vans
600-1600
g/mile

• 1550 g/mile

Second 20%
TL Dry Vans
1600-1700
g/mile

• 1650 g/mile

Middle 20% TL
Dry Vans
1700-1800
g/mile

• 1750 g/mile

Fourth 20% TL
Dry Vans
1800-1900
g/mile

• 1850 g/mile

Bottom 20%
TL Dry Vans
1900-3600
g/mile

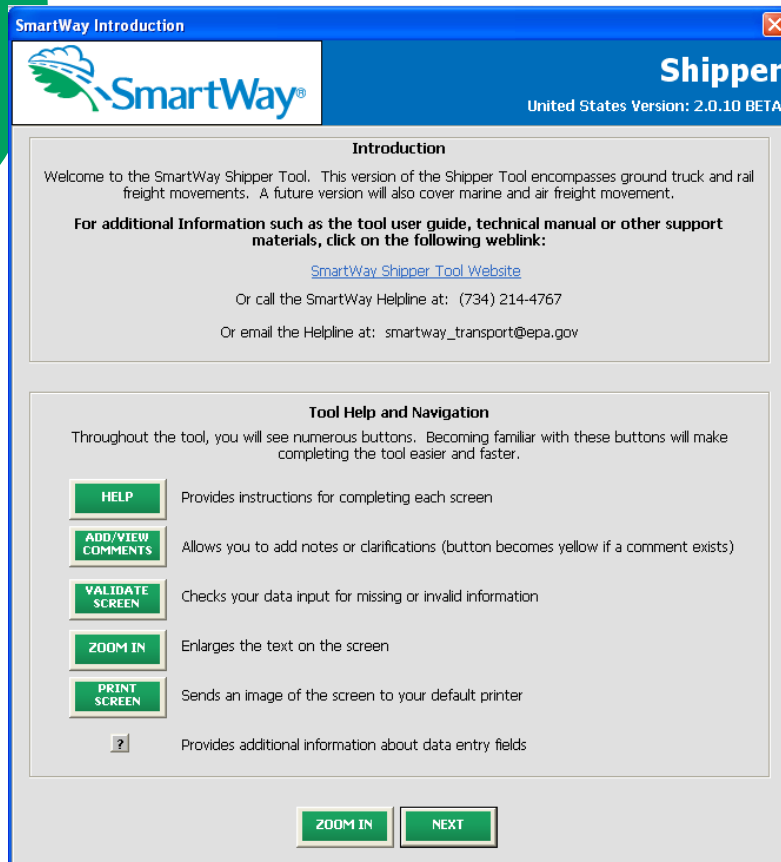
• 1950 g/mile

Shipper Data Collected

- North American Industry Classification System (NAICS) code(s)
- Accounting of all SmartWay carriers utilized
 - All truck, rail, multimodal and logistics providers
- Activity data for amount of freight, distance shipped
 - Total miles contracted and/or ton-miles contracted by SmartWay carrier and non-SmartWay carrier category
 - Freight characterization (avg density, avg payload)
- Mileage and ton-mileage data recommended
 - Flexibility for other data types
- *Optional* data on operational, mode shift strategies

SmartWay for Carbon Reporting

Step 1- Complete the Shipper Tool



SmartWay Introduction

Shipper
United States Version: 2.0.10 BETA

Introduction

Welcome to the SmartWay Shipper Tool. This version of the Shipper Tool encompasses ground truck and rail freight movements. A future version will also cover marine and air freight movement.

For additional Information such as the tool user guide, technical manual or other support materials, click on the following weblink:

[SmartWay Shipper Tool Website](#)

Or call the SmartWay Helpline at: (734) 214-4767

Or email the Helpline at: smartway_transport@epa.gov

Tool Help and Navigation

Throughout the tool, you will see numerous buttons. Becoming familiar with these buttons will make completing the tool easier and faster.

HELP Provides instructions for completing each screen

ADD VIEW COMMENTS Allows you to add notes or clarifications (button becomes yellow if a comment exists)

VALIDATE SCREEN Checks your data input for missing or invalid information

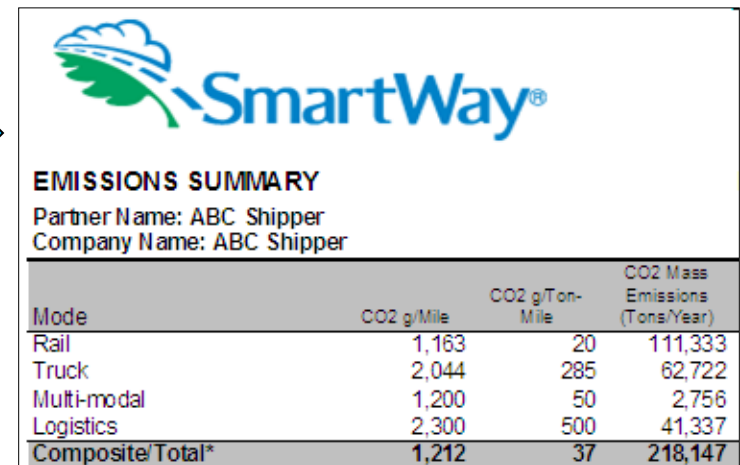
ZOOM IN Enlarges the text on the screen

PRINT SCREEN Sends an image of the screen to your default printer

? Provides additional information about data entry fields

ZOOM IN **NEXT**

Step 2 - Generate SmartWay Data Reports



EMISSIONS SUMMARY

Partner Name: ABC Shipper
Company Name: ABC Shipper

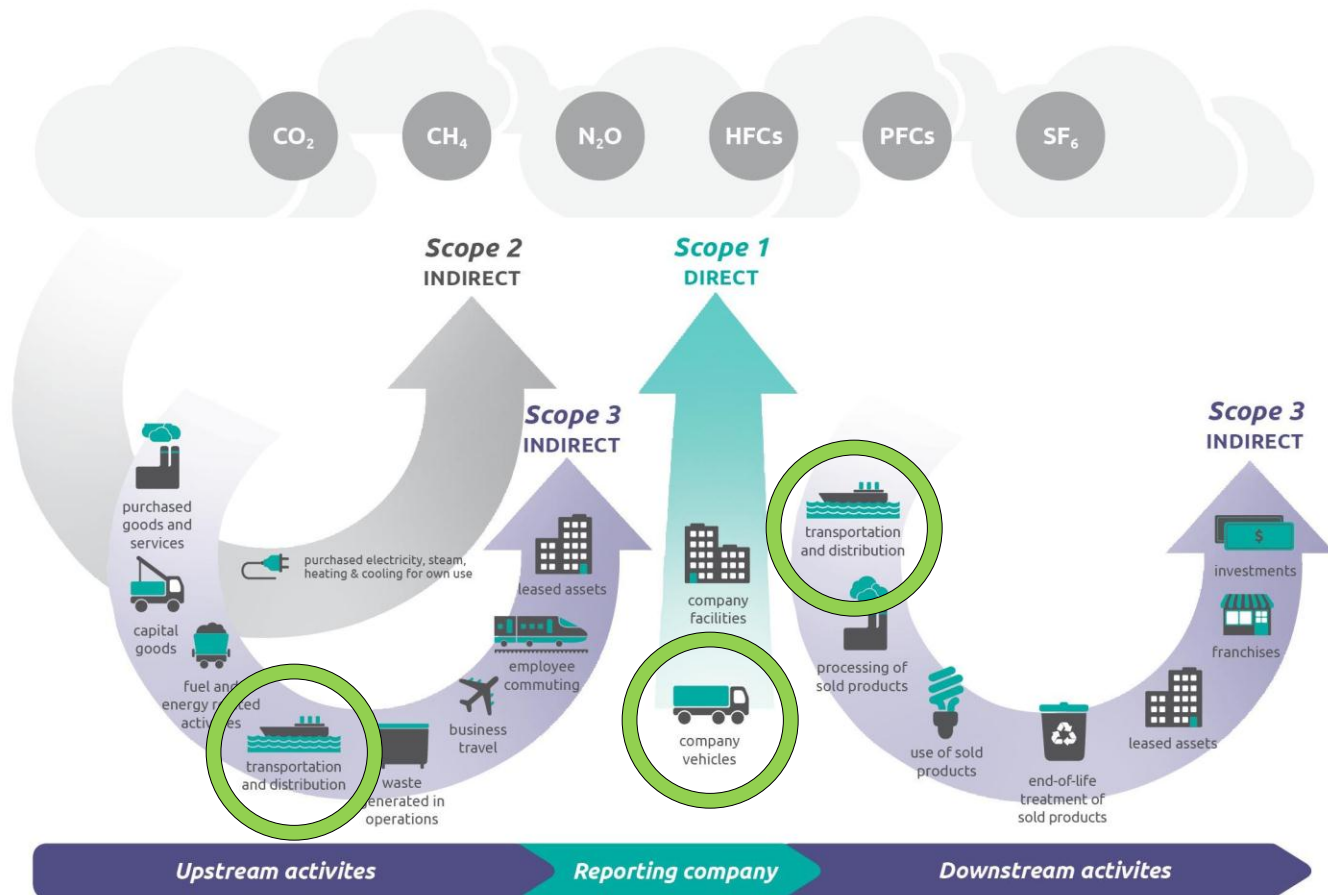
Mode	CO2 g/Mile	CO2 g/Ton-Mile	CO2 Mass Emissions (Tons/Year)
Rail	1,163	20	111,333
Truck	2,044	285	62,722
Multi-modal	1,200	50	2,756
Logistics	2,300	500	41,337
Composite/Total*	1,212	37	218,147

Step 3 - Use results in:

- Benchmarking and Operations
- Environmental Reporting
- Carbon Disclosure Submittals
- Shareholder Response

SmartWay used for Scope 3 Reporting

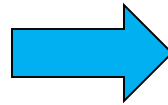
Figure [1.1] Overview of GHG Protocol scopes and emissions across the value chain



WRI-GHG Protocol

SmartWay for Carbon Optimization

Step 1- Complete Shipper Strategies analysis



Step 2 - Generate SmartWay Data Reports

SmartWay Shipper Tool: ABC Shipper

Select Carrier(s) Emissions or % Smartway Activity Data % SmartWay Emissions Summary Carrier Performance

INPUTS ON THIS SCREEN ARE OPTIONAL - NOT REQUIRED FOR EPA SUBMITTAL.
Previously in this tool, you calculated the emissions resulting from your movement of freight using various carriers. On this screen, you enter your company's strategies to reduce emissions BEFORE freight is placed on transport. All strategies on this screen are based on efficiency improvements. In other words, this tab calculates the emissions that would have happened had you NOT implemented your efficiency improvements. Emissions results are calculated assuming a 0 results only provide a rough estimate of emissions impacts. SmartWay intends to improve the functionality of this tab in future tool.

Add Activity
Select a category: Miles removed from system
Pick an activity:
Add Activity

Use the link below documentation of Basic Quantification


#	Name of Activity	Carrier Mode	Percent Improvement	CO2	Results (Tons/Year)		
					NOx	PM 10	PM 2.5
1.	Cube optimization	Truck	8	5,454	35.5	1.73	1.69
	Cube optimization	Multi-Modal	5	145	1.5	0.08	0.08
	Miles removed from system	Logistics	4	1,722	9.9	0.57	0.57

Remove Activity

#	Name of Activity	Carrier Mode	Percent Improvement	CO2	NOx	PM 10	PM 2.5
2.	Packaging weight savings	Truck	15	11,069	72.1	3.52	3.42
	Package weight reduction	Multi-Modal	7	207	2.1	0.11	0.11
	Weight removed from system	Logistics	4	1,722	9.9	0.57	0.57

Remove Activity

Total Results (Tons/Year) 27,304 278.6 10.74 10.59

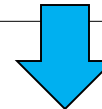


SHIPPER STRATEGIES

Partner Name: ABC Shipper

Company Name: ABC Shipper

Activity Category	Activity Name	Mode	Improvement	CO2
Miles removed from system	cube optimization	Rail	5%	5,860
		Truck	8%	5,454
		Multi-modal	5%	145
		Logistics	4%	1,722
Weight removed from system	Packaging weight savings	Rail	1%	1,125
		Truck	15%	11,069
		Multi-modal	7%	207
		Logistics	4%	1,722
Total Results (Tons/Year)				27,304



Step 3 - Use results in:

- Performance tracking
- Progress reporting
- Case Studies

Working to Build a Better World

KRAFT FOODS RESPONSIBILITY REPORT



Report your Corporate Citizenship

KRAFT FOODS RESPONSIBILITY REPORT

← 22 →

SUSTAINABILITY

HUNGER AND AFFORDABLE NUTRITION

HEALTH AND WELL-BEING

FOOD SAFETY AND QUALITY

WORKPLACE AND CULTURE

COMPLIANCE AND INTEGRITY

CORPORATE GOVERNANCE



TRANSPORTATION/
DISTRIBUTION

BETTER WORLD SNAPSHOT

As members of the U.S. Environmental Protection Agency's **SmartWay Transport Partnership**, we've reduced truck idling, lowered our corporate speed limit, equipped our trucks with fuel-saving technology and adopted other strategies that enable our trucking operations and those of our freight carriers to use less fuel and emit fewer greenhouse gases. In 2009, we were one of just five consumer products companies to earn the SmartWay Excellence Award.



Shipping and storing product more efficiently

Improving our global transportation and distribution network so that we move products and raw materials more efficiently saves truck fuel, cuts carbon dioxide emissions and reduces traffic. Since 2005, improved internal processes along with our collaborations with customers and suppliers have saved more than 50 million road miles (80 million kilometers)—the equivalent of driving from Madrid to Beijing more than 8,500 times.

Sometimes the answer is right under our feet. Like our underground refrigerated-storage facility built into the natural limestone caves at Springfield, Missouri, U.S. Not only do the naturally cool caves require 65 percent less energy than conventional storage facilities, their large size and central location enable us to consolidate inventory and transport our products to our customers more efficiently. Annual savings: 180,000 gallons (680,000 liters) of fuel, 4 million pounds (1,800 metric tons) of carbon dioxide emissions, and more than 1 million miles (1.6 million kilometers) of truck travel.

Another solution is to use other, more efficient modes of transportation. In North America, we've saved more than 1 million miles, replaced

10,000 truck shipments and cut nearly 2,000 metric tons (4 million pounds) of emissions by shipping wheat to our Toledo, Ohio, flour mill by waterway rather than road. In Brazil, in just six months of shipping by water we reduced 125 truck shipments—nearly 250,000 miles (390,000 kilometers) and 300 metric tons (more than 600,000 pounds) of carbon dioxide emissions.

The right technology can make a difference, too. Using the **Oracle®** Transportation Management system to manage and optimize truck movements and minimize "empty miles" in our U.S. operations saved us more than 500,000 miles (800,000 kilometers) in 2009.

BETTER WORLD SNAPSHOT

Since 1993, we've shipped coffee beans to our Berlin, Germany, roasting plant by rail rather than truck. That's reduced fuel consumption by 60 percent, eliminated 100,000 truck transports, cut 1.8 million miles (2.8 million kilometers) and eliminated carbon dioxide emissions by two-thirds, or 2,300 tons (2,000 metric tons).

KRAFT FOODS RESPONSIBILITY REPORT

SUSTAINABILITY

HUNGER AND AFFORDABLE NUTRITION

HEALTH AND WELL-BEING

FOOD SAFETY AND QUALITY

WORKPLACE AND CULTURE

COMPLIANCE AND INTEGRITY

MAKING SUSTAINABILITY A WAY OF DOING BUSINESS

Sustainability is at the present without of future generations. It's about conduct is environmentally responsible. It's at mind of tomorrow.

As a food company on the earth for the day to make quality. And we need to do earth's resources.

The demands are growing. Expert population is going 2050. And stands in much of the incremental strain areas, experts find are being depleted replenish them. Climate are becoming more.

Change is necessary a role to play. We conduct our business indirectly to become.

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

United Nations-sponsored Brundtland Commission Report

SUSTAINABILITY

THIS SECTION WAS LAST

SUSTAINABILITY

THIS SECTION WAS LAST UPDATED JANUARY 2010.

INDEX

SmartWay Excellence Award

- Recognizes top 1% of all partners
- Based on environmental performance
- Recognizes large & small partners
- Includes additional criteria
 - data quality
 - brand visibility



High Praise For Going the SmartWay.

Congratulations
to the 2013 SmartWay
Excellence Award Winners

SmartWay partners know about increased supply chain efficiency and environmental stewardship. This award recognizes excellence in their achievements toward helping the environment, incorporating sustainability, and reducing their carbon footprints.

Learn more at epa.gov/smartway



The SmartWay Transport Partnership is an innovative collaboration between the U.S. Environmental Protection Agency and the freight industry. The partnership is designed to increase energy efficiency while significantly reducing greenhouse gases and air pollution.



Partner Spotlights



SmartWay Helps Tyson Foods Drive Out Miles & Tackle Greenhouse Gas Emissions



SmartWay Helps Lead Kimberly-Clark to Greater Efficiencies and Reduced Transportation Costs

September 2012

Company Message

"We're serious about our responsibility to the environment, so we joined the SmartWay Transport Partnership. The framework enabled us to evaluate, measure and reduce the environmental impacts of our transportation operations in a more comprehensive and specific way. SmartWay has helped us reduce fuel usage and emissions, and improve our operational efficiency."

- Kevin J. Igli, SVP and Chief E

Why Tyson Foods joined SmartWay

Tyson Foods has been a long time supporter of SmartWay's transportation sustainability, and joined the partnership almost immediately after EPA launched it in 2004. Upon joining the company, our goal was to use SmartWay's tools to accurately measure carbon

Company Profile



Tyson Foods, Inc., Springfield, Arkansas, is one of the world's largest processors and marketers of chicken, beef and pork, the second largest food production company in the Fortune 500 and a member of the S&P 500. Tyson produces a wide variety of protein-based and prepared food products, serving customers throughout the United States and in more than 100 countries. Tyson employs approximately 115,000 team members.



Partner Profile: Penske Logistics

The SmartWay to Logistics Management



Company Message

"We're constantly working to optimize our fleet as it relates to responsible sustainable practices, which includes the reduction of fuel consumption and lowering emissions. The SmartWay program has provided us with the necessary strategies to accomplish this."

- Marc Altman, President, Penske Logistics

Why Penske Logistics joined SmartWay

Penske has always partnered with companies to create supply chain management solutions, so it made perfect sense to partner with EPA. SmartWay The collaboration between industry and government offers tremendous value. In addition, SmartWay's second generation tool have allowed Penske Logistics the opportunity to assess its freight operations and to improve efficiency.

Company Profile

Penske Logistics is a wholly owned subsidiary of Penske Truck Leasing. With operations in North America, South America, Europe and Asia, Penske Logistics provides supply chain management and logistics services to major industrial and consumer companies throughout the world. Penske Logistics delivers value through design, planning and execution in transportation, warehousing and international freight forwarding and carrier management.

Point of Contact:
Andrew Gullen
Vice President
Energy & Telecommunications

Company Profile



Kimberly-Clark

Kimberly-Clark Corporation is a global health and hygiene leader serving 12 billion consumers in more than 80 countries featuring such global brands as Huggies, Kleenex, Scott, Kotex,

Company Message

"At Kimberly-Clark, we see SmartWay as both good environmental policy and good business. The transportation strategies that SmartWay recommends are saving us fuel, lessening our carbon footprint, and making a big difference in bringing us closer to our sustainability goals." - Stelios Chrysandreas, Transportation Manager

Why Kimberly-Clark joined SmartWay

Kimberly-Clark is committed to sustainability in all areas of its business, including the delivery of its products. Joining SmartWay presented K-C's Corporate Transportation team with a great opportunity to more actively engage and expand its role in the company's sustainability plans.



Partner Profile

Stanley Black & Decker Uses SmartWay Tools to Reduce Freight Footprint

Company Profile

Stanley Black & Decker, an S&P 500 company, is a diversified global provider of hand tools, power tools and related accessories, mechanical access solutions and electronic security solutions, healthcare solutions, engineered fastening systems, and more. Learn more at www.stanleyblackanddecker.com.

Contact:

Deborah Patterson
Vice President
Environment, Health, and Safety
Stanley Black & Decker
1000 Stanley Drive
New Britain, CT 06053
T 860.827.3825
F 860.515.2755

Stanley Black & Decker

Why Stanley Black & Decker Joined SmartWay

"Our success in measuring, and then shaving, energy demand and resultant Scope 1 and Scope 2 emissions associated with our brick-and-mortar operations has allowed us to apply the same productivity lens to reducing Scope 3 tailpipe emissions from vehicles that transport our finished goods and our employees. Our SmartWay Transport Partnership is the most well established of our Scope 3 emissions reduction initiatives and has stimulated parallel efforts around the globe."

Deborah Patterson, Vice President of Environment, Health, and Safety, Stanley Black & Decker

Stanley Black & Decker 2010-2011 SmartWay Emissions Factor Scope 3 CO2 Emissions

2010				2011			
MODE	E-FACTOR (CO2 G/M)	CO2 (CO2 TONS/YR)		MODE	E-FACTOR (CO2 G/M)	CO2 (CO2 TONS/YR)	
Truck	1946	596,921		Truck	1730	493,038	
Multi-modal	1623	49,212		Multi-modal	1706	20,677	
Logistics	1968	19,480		Logistics	2007	16,074	
TOTAL		665,613		TOTAL		529,789	



SmartWay Public Service Ads



TO REDUCE THIS ...

AND SAVE THIS ...

Partner with SmartWay®

SmartWay Transport Partnership is the smarter way to ship goods. With enhanced tools and user-friendly reporting systems, the SmartWay program can help your company put its best foot forward to reduce its carbon footprint, improve its bottom line, and better manage its global freight supply chain. This innovative public-private collaboration helps your company increase operational efficiency, incorporate sustainability, and gain a competitive edge. Drive over to epa.gov/smartway to learn more.

SmartWay®
Transport Partnership
U.S. ENVIRONMENTAL PROTECTION AGENCY

Any way you ship it, move it the SmartWay.

The UnSmart Way. Keep on doing what you're doing.

SmartWay. If you ship food or beverages, join the SmartWay® Transport Partnership. It gives you

The UnSmart Way. Keep on doing what you're doing.

SmartWay. If you're a retailer, join the SmartWay® Transport Partnership. It gives you user-friendly

The UnSmart Way. Keep on doing what you're doing.

SmartWay. If you're a retailer, join the SmartWay® Transport Partnership. It gives you user-friendly tools and streamlined reporting systems to help you increase operational efficiency. So for everything you ship the SmartWay, you improve your bottom line, gain a competitive edge and better manage your global freight supply chain. And by incorporating sustainability and reducing your carbon footprint, you put your best foot forward: you're seen as an even better corporate citizen. More than 3,000 companies have already joined SmartWay. It's an innovative public-private collaboration that benefits everyone. Now that's smart.

To learn more, scan this  or drive over to: epa.gov/smartway/forshippers

SmartWay®
Transport Partnership
U.S. ENVIRONMENTAL PROTECTION AGENCY

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the SmartWay.

Brand Promotion by Partners

- SmartWay Partners using brand to showcase SmartWay *commitment & participation*



- Advertising
- Apparel (hats, t-shirts, uniforms)
- Briefings and presentations
- Business cards
- Company web site
- Company e-mail signatures
- Educational materials
- Letterhead and stationery
- Posters, internal signage
- Promotional items, Brochures
- SmartWay Designated truck labeling



Leverage SmartWay Brand

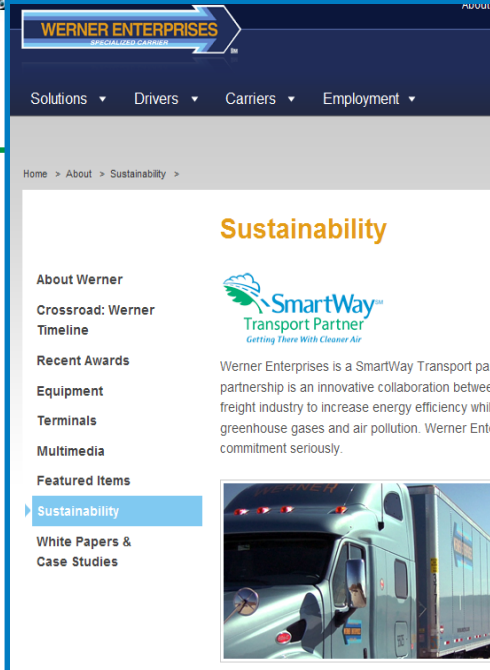
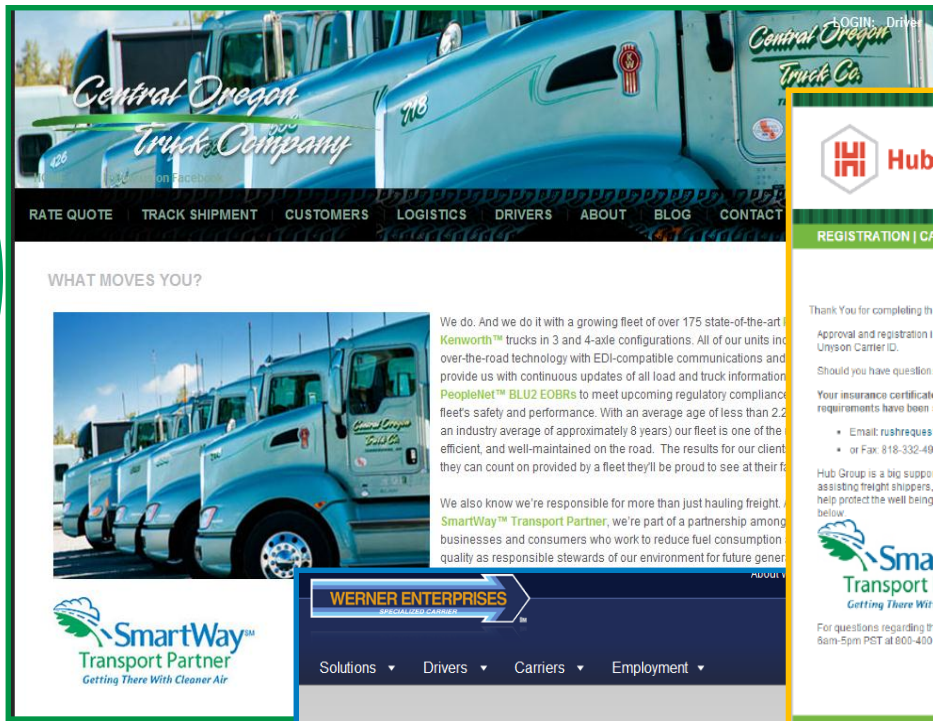
Business-to- Business



Consumers



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business." — Calvin Coolidge

age Our Customers' Business."®

shipment®

ent To You.

9% YTD On-Time Delivery = 97.9%

Highway Services = 99.65%

of our services, visit us at:

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Transport Partner
Getting There With Cleverness


® denotes a registered trademark of Alliance Shippers Inc.

Partner with

PENSKE

Fleet choices today are complex. You need an expert partner like Penske to help you evaluate transportation options that really help your business and the environment.

888-234-4201

 Proud Supporter of
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Sample Uses of Partner Logo: Reports

Emission Reduction

2010 Goal

To achieve net zero emissions for 3 years beginning 2010.

2010 Status

Net zero emissions achieved in 2010.

Program Description

Kohl's recognizes that human activities are changing the climate and the environment comes from our energy use. With this in mind,

Carbon Emissions Management

Kohl's annually measures its total consumption of all energy and its footprint associated with operating Kohl's stores. In addition, the transportation of merchandise to our stores is also calculated.

Disclosure Project. Beginning in 2008, Kohl's has also contracted with a third-party emissions verifier to assure accuracy of the footprint.

Kohl's Carbon Footprint

	Scope 1, 2, 3				Square Foot Building Space		Normalized Emissions	Emission Reductions	
	Direct	Indirect	Travel	Transportation	1000 Sq. Feet	Number of Stores Operating		Renewable Energy Credits	Reductions/ Carbon offsets
2007	22,314	740,043	5,851	230,425	94,405	942	8.23	63,548	-
2008	24,803	810,358	5,013	180,154	101,586	1019	8.27	184,309	-
2009	26,003	833,834	5,026	206,101	107,450	1059	8.07	664,031	-
2010	27,062	832,519	6,369	200,533	108,088	1089	7.94	1,064,131	33,000

In 2010 Kohl's decreased its normalized emissions by 1.6% while opening an additional 30 stores and an Ecommerce Fulfillment Center.

Emissions Reductions

Emissions Generated		2009	2010
Direct Emissions		28,003	27,062
Indirect Emissions		833,834	832,519
Travel Emissions		5,026	6,369
Total Emissions		866,863	865,950
Emission Reductions		2009	2010
Renewable Energy Credits		664,031	1,064,131
Carbon Offsets		-	33,000
Total Offsets		664,031	1,097,131
Net Carbon Emissions		201,832	(231,181)

Transportation Program

In 2010, Kohl's executed 17,456 backhaul trips to our distribution centers from our vendors on return trips to stores. This eliminated 4,151,549 empty miles. These once-empty trailers now carry merchandise from our vendors, ultimately reducing the number of inbound transportation trips. Kohl's also uses rail transportation for 54% of all inbound transportation since rail uses less fuel and causes fewer emissions than truck services.

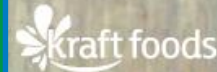
Kohl's joined the EPA SmartWay Shipper program in 2007 and was recognized in 2008 and 2009 with the SmartWay Shipper Excellence Award for achievements in efficient shipping of merchandise. In 2010, nine of our top 10 carriers had the highest rating of 1.25 in the EPA SmartWay program, a program that stresses fuel efficiency and carbon-reduction strategies. In total, Kohl's achieved a 1.19 out of 1.25 rating for miles traveled in 2010 on EPA SmartWay-rated carriers.



This booklet was printed on paper made with chlorine- and lignin-free fiber that is FSC® and SFI Fiber Sourcing certified, manufactured under acid-free conditions and printed using 100% non-toxic toner.

Partnerships

EPA ENERGY STAR®, EPA Green Power Partnership, EPA SmartWay Shipper, Business for Social Responsibility, EPA WasteWise, U.S. Green Building Council Member, Sustainable Apparel Coalition



Sustainability

Since 2010, we have:*

Increased sustainable sourcing.



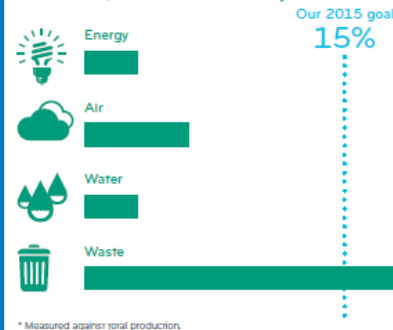
Cut packaging.



Eliminated travel miles.



And reduced energy, greenhouse gas emissions, water and waste by:*



* Measured against total production.



We completed a first-of-its-kind project that mapped our company's total environmental footprint: carbon (air), land and water.



Received SmartWay Champions award for a strong and lasting contribution to SmartWay's mission to reduce the footprint of moving goods

Creating a more delicious world

5

Sample Uses of Partner Logo: Reports

Transport Efficiencies

In 2012, we continued our involvement in the U.S. Environmental Protection Agency's SmartWay Transportation Partnership. Through it, we are reducing carbon dioxide emissions and saving fuel with the active participation of our logistics team and supply chain. Kimberly-Clark has adopted several programs that are increasing intermodal usage and reducing length of haul, total miles and empty miles, as well as wait time and idling at shipping and receiving docks.



INTERMODAL TRANSPORTATION	2008	2009	2010	2011	2012
Total loads	57,499	64,565	78,502	87,934	91,353
Annual change	0.14	0.12	0.22	0.12	0.04
Miles traveled (millions)	76.5	88.9	109.4	117.8	119.6
Savings (\$M)	42.7	32.4	44.2	55.8	60.3
Fuel use (million gallons of diesel)					
Intermodal	6.4	7.4	9.1	9.8	10.0
Comparable truck-only fuel use	12.7	14.8	18.2	19.6	19.9
Savings	6.4	7.4	9.1	9.8	10.0
CO ₂ emissions(million pounds—Scope 3)					
Intermodal	143.1	166.2	204.7	220.4	223.8
Comparable truck-only fuel use	286.2	332.5	409.4	440.9	447.7
Savings	143.1	166.2	204.7	220.4	223.8

Notes:

Numbers are estimates.

Drop in savings for 2009 is due to a significant drop in fuel prices.

Pounds of carbon dioxide emitted for each gallon of diesel fuel burned: 22.45.

Since 2006, we have more than doubled intermodal utilization, from approximately 42,000 loads to more than 91,000 loads, a 117 percent increase that has resulted in:

- Savings of 53 million gallons of diesel fuel
- Reduction of CO₂ emissions by more than 540,000 tons
- Cumulative saving (CS) equal to \$294 million as compared to usage of over-the-road trucks

Maintaining Air Quality and Managing Greenhouse Gas Emissions

The primary air emissions managed by Tyson Foods' operations include:

- Particulate matter, particulate matter of 2.5 micrometers or smaller, and particulate matter of 10 micrometers or smaller (PM 10) from operations such as feed milling and cooking;
- Sulfur oxides, nitrogen dioxide, carbon monoxide, and PM10 emissions from the combustion of fossil fuels; and
- Volatile organic carbon emissions that may result from fryer operations.

In the United States, air emissions are regulated by various federal, state, and local environmental agencies. Our compliance with these regulations is verified through annual emissions inventories, annual and semi-annual emission compliance certifications, sampling, periodic state agency audits, and internal compliance monitoring systems.

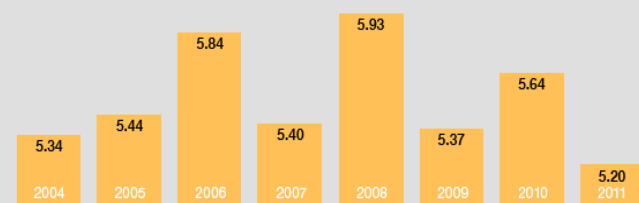
Our air emissions management approach also includes the implementation of pollution prevention programs, the installation of pollution control equipment, and investment in air emission control technologies, as needed. We have completed a potential-to-emit inventory for our U.S.-based operations as a component of the ongoing process of managing air permits and operational changes.

Tyson Foods completed its corporate-wide GHG inventory in accordance with the Climate Leaders Greenhouse Gas Inventory Protocol. This inventory includes GHG emissions from our U.S. chicken, beef, pork, and prepared foods operations as well as our hog buying stations and transportation operations. Additionally, it includes information from our U.S. based Cobb-Vantress and Pork Group subsidiaries. It does not include information from our independent poultry producers.

Our GHG footprint during calendar year 2004 was 5.35 million metric tons. This baseline inventory includes data related to facility fuel and electricity usage, transportation fuels, refrigeration usage, and anaerobic biogas production. Based on this inventory, the company is evaluating its energy profile and considering a process for establishing energy metrics tied to GHG emissions. We believe any approach selected must provide a consistent framework for measurement to align with future regulatory and policy expectations related to carbon management. In light of the current uncertainty surrounding the legislative and scientific discussions related to climate change, however, we may choose to delay our decision on goal setting in order to better understand the future legal landscape and role of carbon in the economy as well as its potential financial implications on our company.

GREEN HOUSE GAS EMISSION SOURCE COMPARISON

ABSOLUTE EMISSIONS BY MILLION METRIC TONS PER YEAR



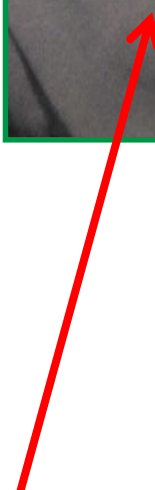
All values are rounded to two significant digits. Emission rates do not include poultry houses at this time.

We also became a partner in the EPA SmartWay® Transport Partnership in 2004. The SmartWay partnership is a voluntary environmental and energy conservation program for companies that ship and haul freight. In 2006, we expanded our involvement in this program, and gained national status and recognition from the EPA as an authorized shipper/carrier partner. At the time this status was achieved, we were one of only seven companies to be recognized as both a shipper and carrier partner.

On October 4, 2012, the U.S. Environmental Protection Agency's (EPA) SmartWay Transport Partnership shined a spotlight on Tyson Foods for its efforts to reduce emissions and overall truck miles. As part of its participation of the program, Tyson Foods' Team Members eliminated more than 145 million over-the-road truck miles during fiscal years 2011 and 2012. The SmartWay partnership noted Tyson Foods' work to purchase lightweight equipment, its innovative package design, use of railway shipping and logistics as successful improvements.



Approximately 99 percent of Tyson Foods' refrigerated shipments are transported by SmartWay Carriers. In addition, below are recent initiatives designed and implemented by Tyson Foods to reduce the company's environmental impact and improve its overall sustainability.

[illegible]

SmartWay Social Media

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U.S. Environmental Protection Agency



State of the Environment Pro
Photographer: Dan Co
January 27, 2



U.S. Environmental Protection Agency ✓
69,619 likes · 1,882 talking about this · 1,519 were here

Government Organization
Born in the wake of elevated concern about environmental pollution, EPA was established on December 2, 1970 to ensure environmental protection.

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 **U.S. Environmental Protection Agency** shared a link.
August 21

Our SmartWay program works with our partners to reduce carbon emissions and fuel consumption throughout the transportation supply chain. Read about how this program is helping Stanley Black & Decker, a SmartWay partner, achieve their sustainability goals and [#ActOnClimate](#).

[SmartWay Resource Center](#) | [SmartWay](#) | [US EPA](#)
www.epa.gov



The Home Depot @HomeDepot

3m

We were recently honored w/ @EPA's 2013 [#SmartWay](#) Excellence Award. Learn more about our [#environmental](#) efforts here:

thd.co/zHMUTS

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U.S. EPA @EPA

21 Aug

See how our SmartWay partners like Stanley Black & Decker achieve their freight sustainability goals & [#ActOnClimate](#)
go.usa.gov/jH6W

Expand



Save Fuel, Money and the Environment with a SmartWay Truck



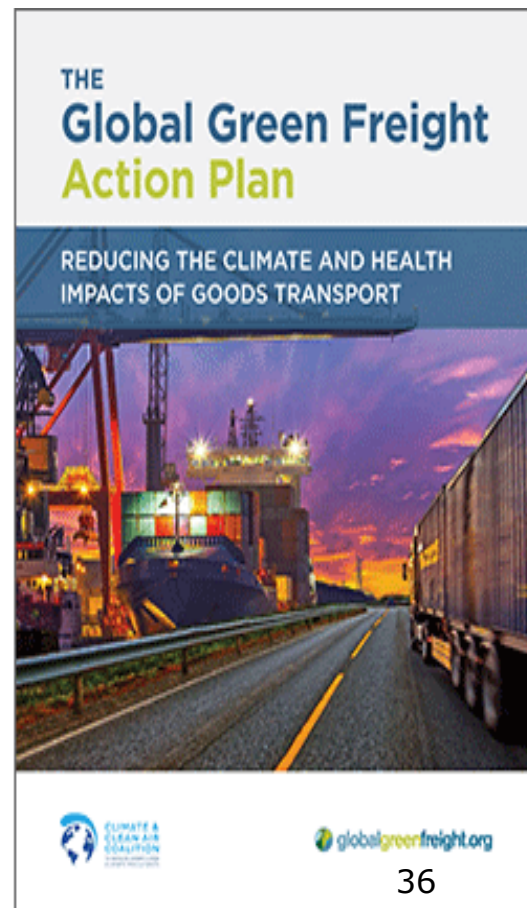
A SmartWay tractor and trailer annually save 2,000 to 4,000 gallons of fuel and reduce CO₂ emissions by up to 20% as compared to similar trucks on the road. Learn more at www.epa.gov/smartway

SmartWay Global Collaboration

EPA engaged through bilateral & multi-lateral mechanisms to work with other nations



- China - *Climate Change Working Group*
 - China Green Freight Initiative
- Multilateral collaboration in Brazil
- UNEP - *Climate and Clean Air Coalition*
Global Green Freight Action Plan
 1. *Align/Enhance Existing Green Freight Efforts*
 2. *Develop/Support New Green Freight Programs*
 3. *Address Black Carbon in Green Freight Programs*
- *Global Logistics Emissions Council*
 - Creating global framework for freight supply chain logistics emissions methodologies



Why Should Countries develop Green Freight Programs like SmartWay?

- Standardized approach to assess supply chain efficiency and emissions
 - For any business that ships, carries or receives goods
 - Adopted by industry leading corporations
- Designed with and for the freight sector
 - Delivers solutions to marketplace needs and challenges
 - Voluntary and no-cost
- Credible, neutral data oversight
 - Program can oversee data quality assurance and control
- Proven marketing benefits
 - Shippers identify greener carriers
 - Carriers gain competitive advantage for leading shippers
- Strengthens brand equity to investors, customers
 - Carbon assessment, corporate responsibility