## Webinar Audio Recording

#### To play the audio recording:

- Go to:
  - http://www2.teleconferencingcenter.com/moderator/presentation/Playb ack?id=6ade4d12-a53b-4494-b853-db78b9af3f04.rpm
  - Enter your name and email
- Select whether to use Real Player or Windows Media Player.
  - To play the recording, you must have one of these installed on your computer. The Real Player tends to work better.
  - http://www.real.com/
  - http://windows.microsoft.com/en-US/windows/downloads/windowsmedia-player
- Click "Listen."





## EPA's SmartWay Partnership

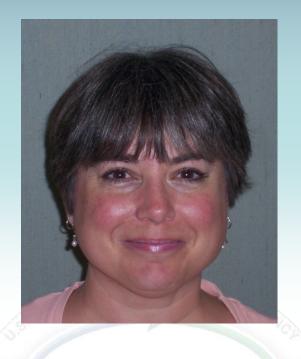
#### December 6, 2012

## Today's Host: Keilly Witman – US EPA/GreenChill

**Keilly Witman** works to protect the earth's ozone layer and fight climate change in the U.S. Environmental Protection Agency's Stratospheric Protection Division.

Keilly runs EPA's GreenChill Partnership, which is a program to help the supermarket industry reduce ozonedepleting and greenhouse gas refrigerant emissions.

Witman.keilly@epa.gov 202-343-9742



## Welcome / Webinar Etiquette

- Webinar is being recorded
- Recording will be available on GreenChill LinkedIn site and GreenChill website, under "Events and Webinars": <u>www.epa.gov/greenchill</u>
- Phones are muted (#6 to unmute)



## Q & A

- Q&A session after presentation
- Submit your questions using CHAT at anytime; we'll go through them during Q&A
  - If you'd like to remain anonymous, send your question by CHAT to Keilly Witman instead of to all participants
- Raise your hand during Q&A (hand button is on the upper right part of the screen)

## **Sending Questions via Chat**

		Help
≝+	Attendees (3)	≡*
	▼ Hosts (1)	
📌 Start Private Chat	上 🤱 Keilly Witman	
	<ul> <li>Presenters (0)</li> </ul>	
	<ul> <li>Participants (2)</li> </ul>	
	Chat (Everyone)	=-

## Sending Questions via Chat

Chat (Everyone)		
Presenter: Welcome to to	Hosts	Start Chat With 👂
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		2
Everyone Hosts		

## **Raising Your Hand**



## Today's speakers...



## Today's Presenters: Denise Kearns U.S. EPA SmartWay

Denise Kearns

**Environmental Protection Specialist** 

U.S. EPA SmartWay

Office: 734-214-4240

Email: Kearns.Denise@epamail.epa.gov



**Denise Kearns** has over 20 years experience working in environmental policy, transportation management, communications and public outreach. At EPA she has served in a number of key positions, including conducting communications and outreach in support of the SmartWay program.

Denise is involved with a number of civic and charitable organizations in Michigan, her home state. She holds a B.FA. in Communications from Wayne State University, and has completed several graduate level courses in business management, environmental policy, and public administration.

## Today's Presenters: Daniel Scherer Meijer

Daniel Scherer Fleet Maintenance Manager Meijer Logistics LLC Email: Daniel.Scherer@meijer.com

**Dan Scherer** has been with Meijer since 1985. He is currently responsible for fleet maintenance at all distribution centers; budgeting, specking, maintaining and purchasing all trucks and trailers; and maintaining DOT compliance.

Dan holds a degree in Engineering from Lansing Community College as well as several technical certifications including ASE Master Automotive Mechanic, Hi-Lo Master Mechanic, Journeyman Refrigeration Mechanic, and Journeyman Electrician, among others.

Dan and his family reside in Monroe, Michigan. His hobbies include Electric Cars, Muscle and Classic Cars, Alternative Energy and Energy Management.

## U.S. EPA SmartWay Transport Partnership

GreenChill Webinar Series Denise Kearns December 6, 2012







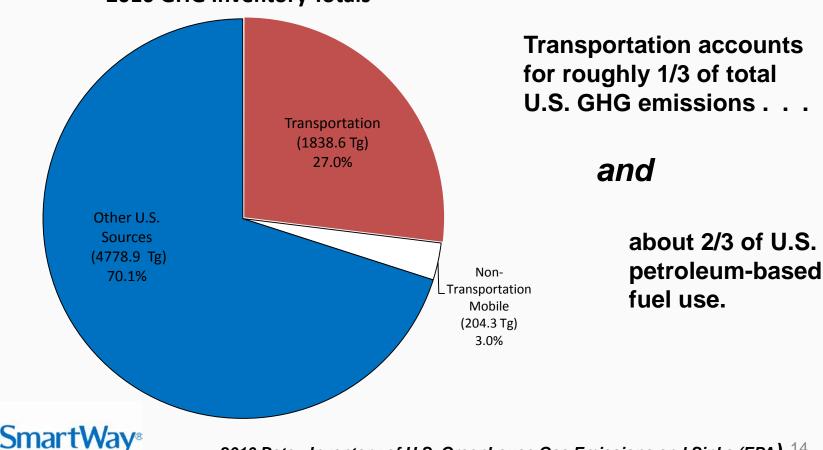
## Today's Discussion

- Why sustainable freight?
  - Environmental & economic drivers
- EPA SmartWay approach and objectives
  - Public-private partnership
  - Save fuel, energy and the environment
- EPA SmartWay tools & resources
  - Carbon tracking & Performance assessment tools
  - Technology Verification
  - Partner Recognition
- Going forward





#### Transportation is a Major Contributor to U.S. GHG Emissions

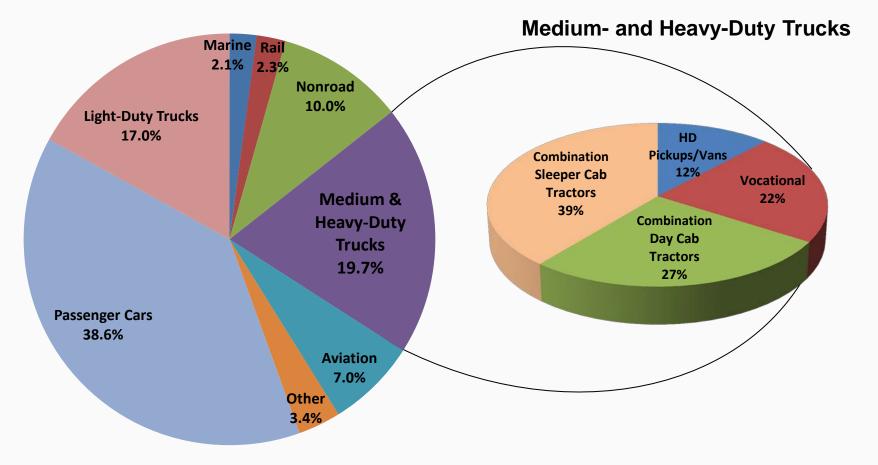


**2010 GHG Inventory Totals** 

2010 Data - Inventory of U.S. Greenhouse Gas Emissions and Sinks (EPA) 14



## Transportation/Heavy-Duty GHG Emissions



2010 Data - Inventory of U.S. Greenhouse Gas Emissions and Sinks (EPA)

## UNITED STATES

## **Economic Importance**

- Freight transportation is a cornerstone of our economy
  - Communities & businesses depend on trucking & rail for production and delivery of goods purchased at local stores, online
- \$11 trillion value in freight shipments
  - Domestic commodity shipments, domestic transport of exports, imports
- Trucking generates \$660 billion in revenues, employs almost 9 million people
  - Essential to our nation's competitiveness,
    - U.S. jobs, local economies







## EPA SmartWay Transport Partnership

Collaboration between government & business



- Promote sustainable goods movement in supply chain
- Reduce economic, energy and environmental costs of goods movement





## SmartWay Approach

- Recognizes that businesses freight is critical to economy, jobs, healthy business climate
- Provides freight industry with tools to help businesses improve efficiency, reduce emissions and save fuel as a means to:
  - save money,
  - stay competitive,
  - demonstrate leadership, environmental stewardship



## SmartWay Approach

- EPA provides consistent objective, market-driven tools, approaches and incentives to help businesses to benchmark, track and reduce fuel consumption from supply chain
- Partners save money, cut emissions and achieve recognition

## Win for business - Win for the environment





## Program highlights, composition

- Since 2004, has grown to nearly 3,000 SmartWay partners with support of the trucking industry and their freight shipping customers (large retailers)
  - Top 100 U.S. truck carriers
  - All Class 1 rail lines
  - Fortune 500 shippers from every major business sector
  - Major logistics firms





## Some of SmartWay's Partners









U.S. General Services Administration Freight Transportation Management



Logistics









## Program Achievements

#### Since 2004, SmartWay Partners have saved:

- 16.5 million metric tons of CO2
- 9,000 tons PM

- 235,000 tons NOx
- 50 million barrels of oil
- \$6.1 billion dollars in fuel costs

Equivalent to taking over 3 million cars off the road for 1 year





#### **Key Program Elements**

#### Partnership

- Tools to assess, benchmark and track emissions
- Technical support
- Web-enabled performance assessments

#### **Technology Program**

- Testing and verification program
- SmartWay Tractor/Trailer
- SmartWay-verified technologies

#### **Outreach and Education**

- Partner recognition
- Webinars, fact sheets, list serv workshops, events
- Outreach PSAs, media campaigns, events





## How the Program Works

#### SmartWay Provides

Partner tools and resources to assess, track and reduce emissions and energy use

Testing and identification of lower carbon strategies and technologies

Recognition for top-performing partners

SmartWay Partners commit to improve the environmental performance of their freight delivery operations

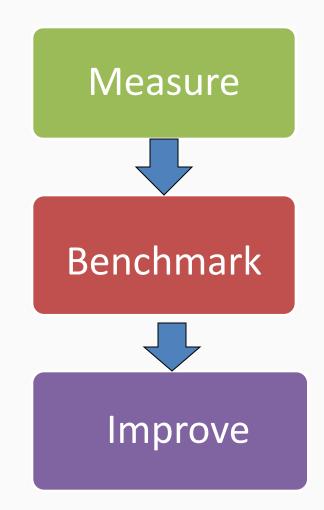
SmartWay Carriers commit to integrate innovative cost savings strategies into their fleet operations

SmartWay Shippers commit to ship the majority of their goods with SmartWay Carriers





## SmartWay Tools Calculate Freight Emissions







## There are 12 categories of Partners in SmartWay that report data to EPA

Trucks								
<ul> <li>9 truck categories:</li> </ul>	Dray Flatbed LTL Dry Van Mixed Package	Refrigerated Specialized Tanker Truckload dry van						
Logistics								
Multimodal Carriers								
Shippers								

## SmartWay Carrier Data Collection

Partners submit data annually by filling out one of the following carrier tools:

- Truck tool (TT)
- Multimodal tool (MMT) for truck companies that use truck and rail
- Logistics tool (LT) for third party providers

Data Collected

- Gallons by fuel type, total miles, revenue miles, empty miles
- Average payload, ton-miles, average volume, trailer usage and capacities, short *vs.* long haul
- Numbers of trucks by class and model year, duty cycle: urban/highway, average speeds, idle time, PM reduction strategies
- Fleet type, operational and equipment type, executive contact information, commodities hauled
- Sources of data: ECM, telematics, etc.

## How Shippers Use Carrier Data

• To make informed carrier selection *via* SmartWay's carrier fleet rating approaches



• Shippers submit data in shipper tool to assess and track emissions and carbon footprint

Enables shippers to respond to customer, shareholder, and corporate needs for energy & environmental benchmarking



## Sample of Publicly Available Report

Performance Rankings		TRUCKLOAD	/DRY VAN										
Click down arrows 👻 to filter data by column categories. Select one or more items in the dropdown checklists.													
To seach by name, SCAC or MCN, click CTRL + F to bring up the search dialogue box, then type in the 4 letter SCAC, the 8 digit MCN, or all or part of the company name.													
Performance Ranking=midpoint of the performance range for the metric													
Note: gm=grams/mile and gtm=g/ton-mi	le					Performance Ranking							
CompanyDivisionName	Modo SubMod	SubModo	FleetTures	SCAC	MCN	CO2 gm	NOx gm	PM10 gm	PM2.5 gm	CO2 gtm	NOx gtm	PM10 gtm	PM2.5
CompanyDivisionName	Mode 🔽		FleetTyp	SCAC		metri	metri 💌	metri 💌	metri	metric	metric	metric	gtm 💌
101 Transport Truckload	Truck	TL/Dry Van	For-Hire	OZOT	MC625894	1750	13.5	0.525	0.525	105	0.825	0.033	0.033
1625443 Ontario Inc. dba TVM	Truck	TL/Dry Van	For-Hire	OSTG	MC564999	1101	16.5	0.675	0.675	95	0.825	0.043	0.043
1st Express Inc.	Truck	TL/Dry Van	For-Hire	FSEP	MC181440	1101	10.5	0.525	0.525	60.5	0.525	0.023	0.023
2010 KKW Trucking Inc.	Truck	TL/Dry Van	For-Hire	KKWQ	MC151877	1101	3	0.075	0.075	60.5	0.15	0.004	0.004
24:7 Expedite, Inc.	Truck	TL/Dry Van	For-Hire	TWFJ	MC690675	1101	16.5	0.675	0.675	115	0.825	0.043	0.043
3NT, LLC	Truck	TL/Dry Van	For-Hire	THLL	MC716290	1650	3	0.075	0.075	85	0.15	0.004	0.004
A & C Incorporated dba Asbury Trucking	Truck	TL/Dry Van	For-Hire	AQCD	MC264307	1850	13.5	0.525	0.525	85	0.675	0.023	0.023
A & S Services Group, LLC	Truck	TL/Dry Van	For-Hire	ANSW	MC164166	1101	3	0.225	0.225	115	0.525	0.013	0.013
A&M Transport / Dry Van	Truck	TL/Dry Van	For-Hire	ALKM	MC217072	1750	10.5	0.525	0.525	85	0.525	0.023	0.023

## Performance Ranking Information published weekly www.epa.gov/smartway





## EPA Testing and Technology Programs

• New Technology Assessment Center

(TAC) integrates expertise from EPA SmartWay and National Clean Diesel technology programs

- Provides comprehensive approach to reducing emissions (criteria and GHG) from HD fleets.
- Overseas research, test and evaluate emission and fuel-saving technologies and strategies
  - Wide-range of applications including long-haul tractor-trailers, off-road equipment, marine, and rail
  - Wide-range of technologies including emission controls (e.g., diesel particulate filters, oxidation catalysts), idle reduction, low rolling resistance tires, and aerodynamics





## EPA Testing and Technology Programs

- Verifies technologies, develops testing protocols and assessment tools
- Provides technical expertise
  - Other federal programs,
  - Academia,
  - Technical groups (SAE, TMC)
  - EPA's new vehicles emissions and legacy fleet programs





## SmartWay Recognition

- Recognize SmartWay industry leaders with awards
  - Highlight accomplishments of outstanding SmartWay Transport Partners
  - Partners market that they are awardees
  - EPA acknowledges award winners
- Publicize SmartWay program results
- Case Studies/Partner Profiles





## **Partner Recognition**





Thanks for saving energy. Thanks for cleaner air. Thanks for being a SmartWay Transport Partner. The following truck carriers are leading the way in reducing emissions and fuel consumptio

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To become a SmartWay Transport Partner, save fuel, save money and protect the environment, pieses call 1-734-214-4767 or email us at smartway transporteepa.gov. SmartWay is avoluntary program from the U.S. Environmenial Protection Agency:









#### **Public Service Campaign**





# 

#### YOU'RE A CLICK AWAY FROM A SMARTER SUPPLY CHAIN



Logistics managers are constantly looking for ways to reduce costs for their customers through customized solutions. SmartWay= Transport Partnership is one smart money-saving program grounded in innovative business strategies and new technologies. SmartWay Transport is about streamlined logistics operations that reduce fuel costs while reducing greenhouse gases and other emissions.

To find out more about this collaborative program, please call 1-734-214-4767 or visit www.epa.gov/smartway.



Ad Concept 2.23.07



## **Going Forward**

- Partnership
  - Continue to refine program tools to include more real world performance and enhance flexibility
    - New system accounts for all carrier strategies as captured in overall efficiency
    - New tools allow greater customization (TL, LTL, dry van, flat bed, etc.)
- Broaden partnership to achieve more public/private benefits
  - Tons of emissions reduced
  - Millions of barrels of oil conserved
  - Billions of dollars in operational savings
  - Thousands of U.S. businesses strengthened



#### Questions?

#### www.epa.gov/smartway 1-734-214-4767 (helpline)



# Meijer's SmartWay Experience



# Meijer Logistics Environmental Sustainability Goals

#### Accomplishments

- Our Meijer Private Fleet operates (171) Trucks, (1487) Dry Van Trailers and (563) Refrigerated Trailers.
- 79% of our trucks are 2010 EPA Emission Compliant. We also have (2) Prototype 2014 Freightliner Cascadia "Evolution" trucks in operation. (35) 2014 Evolutions are on order with a February delivery. We will be 100% 2010 or better emission compliant by 2013.
- Fleet efficiency improvements in the supply chain, also includes operational improvements (e.g. loading, routing) that actually take trucks off the road, thereby eliminating the fuel they would have used.

# Fleet's Emissions for 2010

### Meijer 2010 Fleet Emissions using EPA's SmartWay 2.0 Software

Company Division Name	Mode	Sub Mode	Fleet Type	CO2 gm	NOx gm	PM10 gm	PM2.5 gm	CO2 gtm	NOx gtm	PM10 gtm	PM2.5 gtm
Meijer Logistics LLC	Truck	Mixed	Private	1500	3.5	0.075	0.075	70	0.22	0.005	0.005

# Reduction in Energy Consumption and Environmental Footprint

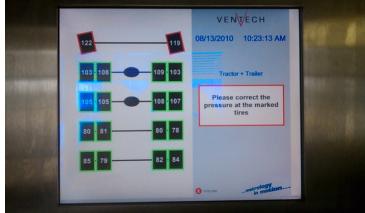
The emissions reduction from each of our (135) 2010 EPA Compliant trucks are 50 times cleaner compared to each old truck it has replaced. As of August 1<sup>st</sup> our new trucks are currently running at a 12% improved fuel economy than the trucks they replaced. They have advanced aerodynamics and an Automatic/Manual transmission. The benefits of this are less distraction for the driver, no drive line shock, longer clutch life, and better fuel economy.

# Reduction in Energy Consumption and Environmental Footprint

## "Ventech" Tire Pressure Monitoring System

We tested a system that checks individual tire pressures of all tire positions on the truck-trailer as it rolls over an in ground sensor plate. This proved accurate within 3 psi and found the flat tire we arraigned. This system does not require us to modify any vehicles. Having the proper tire pressure improves fuel economy and reduces tire heat from under and over pressure conditions which can reduce tire failures and wear. We are currently installing this at our Lansing Distribution Facility.





# Reduction in Energy Consumption and Environmental Footprint

### Trailer Disc Brakes

Since 2009 We've purchased (571) trailers to date and spec'd them with disc brakes. These have proven to be maintenance free, they greatly improve stopping distance and they weigh less than standard drum brakes. This improves fuel economy and increases payload.

#### Truck Disc Brakes

(30) in service now and (35) more included in next year's order.



#### Customized Delivery Program

Meijer matches the number of deliveries, per store, to the stores' actual sales.

### Cellular maintenance notification system "Zonar" in all (135) of our 2010-2014 Freightliners.

This system communicates any truck fault codes occurring in realtime. A Daimler engineer reviews each code and generates an appropriate diagnosis and e-mails the suggested repair to us and directly to the Freightliner dealership so we can prepare for the truck's arrival and quick repair to get it back into service. Below is an actual e-mail to show just how simple but precise the process is.

#### Tractor 1023 - IMT Circuit fault logged

Truck needs to have the (IMT) Intake manifold temp sensor and its wiring inspected. If left alone damage to the After-treatment can occur which would down the truck. IMT Sensor probably needs to be replaced.

#### This takes our Fleet Maintenance to a "Real Time" level.

Asset No.	Timestamp	Code	Description	Location		
			Intake Manifold			
	12/5/2012		Temperature Circuit	Mount Pleasant to I-		
Meijer 1023'	8:55	1636/3/2	Failed High	94 Westbound		

#### Roll Stability Control

(135) 2010/2011/2012/2013/2014 Freightliners are equipped with this stability technology that actives automatically if one of our truck/trailers loses stability and/or traction while going down the road or into a curve. This greatly reduces the chances of a roll over incident.

### GPS Dual-Mode Communication System

Enhance customer load status information, improve routing to reduce deadhead miles, and conserve fuel.

#### Synthetic Lubricants

As of February 2009 our fleet has been completely switched over to fully synthetic lubricants with the exception of motor oil. These help improve fuel economy and since they are non-petroleum based products, it will reduce our dependence on foreign oil.

#### Lowered Road Speed to 61 MPH on Tractors

Truck fuel economy drops significantly as speeds rise above 55 mph. By limiting top highway speeds, trucks can save fuel, reduce emissions, and prolong engine life. Maximum truck driving speeds can be limited through electronic engine controls.

#### Gear Vehicles to Cruise Speed

Our new trucks are spec'd with the transmission final drive ratio, axle ratio, and tire size to match the OEM recommended engine RPM's for the highway cruising speed. These Power train optimizations are yielding fuel savings of 12% year to date.

#### Wide base tires (referred to as "Fat Boys")

Wide base tires are now a standard spec on any new Truck/Trailer purchases. They have reducing rolling resistance and improving fuel economy. Wide base tires can improve fuel economy by two percent or more compared to equivalent dual tires.



#### Driver Education

Drivers can use simple techniques like cruise control, coasting whenever possible, limiting use of cab accessories, smooth and gradual acceleration, progressive shifting (up shifting at the lowest RPM possible), reducing maximum freeway speeds, and limiting truck idling and stops to help enhance fuel economy. Driver education can reduce fuel consumption by 5% or more, saving more than \$1,200 in fuel costs and eliminating about eight metric tons of greenhouse gas emissions, per truck, each year.

#### Lowering Idle Time to Five Minutes on Tractors

The tractor will automatically or systematically shutoff after five minutes of idle time to save fuel. Currently the Meijer fleet is below 3% idle time, this is significantly below the industry standard of 15 to 20%.

#### Reefer Trailer Upgrades

We've finished installation of Michelin Fatboy Tires, EcoFlaps and Trans-Tex skirting on (342) of our newest Reefers. These trailers accumulate 3 times the mileage per year compared to our Dry Van trailers which makes the investment pay for itself quickly. These trailers have aerodynamic skirting, super single tires, disc brakes, extra thick insulation, lighter weight, ultra efficient refrigeration system, GPS tracking with cellular trailer temperature and low fuel warning systems. These trailers also use 8% less fuel.

