

## **U.S. Environmental Protection Agency**



#### Office of the Administrator

#### Headquarters offices Office of Office of Air and Administration and Resources Radiation Management **Chemical Safety** Office of the Chief and Pollution Financial Officer Prevention Office of Office of **Enforcement and Environmental** Compliance Information Assurance Office of General Office of Counsel Inspector General Office of Office of International and Research and **Tribal Affairs** Development Office of Solid Waste and Office of Water **Emergency** Response



## Office of Air and Radiation

Office of Transportation and Air Quality (OTAQ)

202-566-0495

#### **About OTAQ**

- Assessment and Standards Division
- Compliance Division
- Transportation and Climate Division
- Testing and Advanced Technology Division

#### Transportation and Climate Division

Karl Simon, Director Michael Moltzen, DD Ken Yale, Acting AD

#### Climate Analysis and Strategies Center

Britney McCoy

#### Climate Economics and Modeling Center Sharyn Lie

Legacy Fleet Incentives and Assessment Center Christine Koester

SmartWay and Supply Chain Programs Center Sam Waltzer

State Measures and Transportation Planning Center Meg Patulski

> Technology Assessment Center Dennis Johnson

## The work of OTAQ





- Assess mobile source air quality problems and develop modeling tools to develop solutions, measure results, and support emission inventories.
- Establish national standards to reduce emissions from on-road and nonroad mobile sources.
- Implement national mobile source standards through certification processes and in-use monitoring.
- Develop fuel efficiency programs and technologies to reduce the emission of greenhouse gases from the transportation sector.
- Research, evaluate, and develop advanced technologies for controlling emissions, as well as new strategies for improving fuel efficiency.
- Develop partnerships and programs which inform stakeholders and the public about the benefits of cleaner transportation options and choices that protect public health.



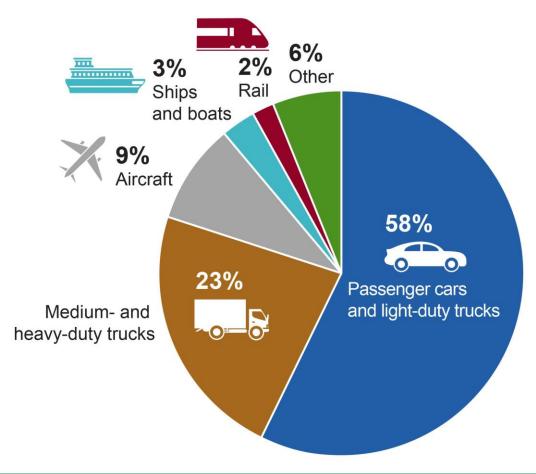




# Sustainability Drivers: Transportation Greenhouse Gases



#### 2021 Greenhouse Gas Emissions from US Domestic Transportation by Mode



Transportation is now single greatest source of GHGs in U.S.

Between 1990 and 2021, transportation greenhouse gas emissions rose by **about 19%**.

This rise is mainly attributed to an increase in vehicle miles traveled by passenger cars and all truck types.

# What is SmartWay?



### Launched by freight industry in 2004 as a voluntary, market-based program aiming to:

- Improve U.S. freight efficiency
- Enhance our Nation's energy security
- Reduce climate forcing and other air pollutants
- Highlight the freight industry's efforts to reduce emissions
- Provide a standardized benchmarking and reporting system
- Adopted by Canada, piloted in Mexico and replicated around the globe
- About 4000 Carriers, Shippers, 3PL's and Affiliates
  - Key economic sectors and modes
  - Small business, Owner-operators, Fortune 500 firms



# SmartWay Partner Results





- SmartWay Partners saved over \$52 billion in fuel costs and reduced harmful air pollutants by:
  - 162 million metric tons of CO2
  - 2.8 million tons of NOx
  - 114,000 tons of PM

SmartWay Partner energy savings are equivalent to 379 million barrels of oil OR eliminating annual energy use in 24 million homes FedEx

























#### **Shipper tool**

Shippers submit freight shipped with carriers and/or logistics firms

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**Carrier tool** 

Carriers submit

activity and equipment data



EPA publishes performance rankings and emissions of carriers and logistics firms

#### **Logistics tool**

Firms submit data on freight shipped for shippers



## SmartWay Benchmarking Process





Logistics firms hire carriers based on performance and help shipper clients optimize carrier selections to reduce carbon



# SmartWay uses **Primary** activity data



- Miles (revenue and empty)
- Fuel consumption
- Fuel types used (incl. EV)
- Short Haul vs. Long Haul
- Model year and truck class

- Average Payload Cargo Weight Only
- Road Type
- Road Speed Categories
- Average Annual Idle Hours
- Shippers and 3PLs do annual accounting of miles and ton-miles of freight shipped with SmartWay registered carriers and non-SmartWay carriers
- Shippers and 3PLs report by mode, operation, subsidiary, etc.

## Carrier Data = Emission Factors



#### **13 Carrier Categories**

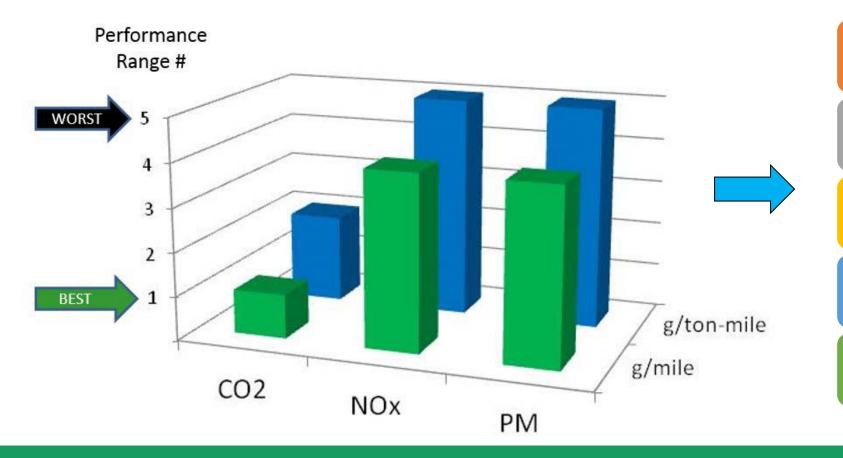
- TL, LTL, Refrigerated, Tanker, etc.

#### **6 Emission Factors**

- 2 metrics x 3 pollutants

#### **Quintile Rankings**

(ex:  $Truckload CO_2 g/mile$ )



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% T Dry Vans 1700-1800 g/mile

1750 g/mile

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

• 1850 g/mile

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

1950 g/mile

# Published Carrier Performance Data



A	В	С	D	E	F	G	н	1	J	K	L	М	N	0	P	Q	R	S	Т
	Truck Ca	rrier Data Ye	ar: 2018;	Barge Ca	rrier Data	Year: 2018	B; Rail Car	rier Dat	a Year: 20	18; N	<u>lultimoda</u>	al Carrie	r Data Ye	ear: 201	7; Logi	stics Ca	rrier Data	Year: 2	<mark>2</mark> 017;
Performance Rankings		TL/Dry	Van																
renormance Kankings		IL/ DIY	van																
and a second sec																			-
Click down arrows 💌 to filter data by column categorie	es. Select	one or more it	ems in the	dropdown	checklists.														
Note: g/m=grams/mile and g/tm=g/ton-mile										Per	forman	ice Ra	nking	s and	Emissi	on Fa	ctors		
								Grams per Mile				Grams per Ton-mile							
		SmartWay						a/m		g/m				g/tm		g/tm			
		Ranking	Fleet				Canadian	CO2	g/m	NOx	g/m	g/m PM		CO2		NOx	g/tm g	y/tm PM	
Carrier Fleet Name	Mode 7	Category *	Type 🔻	SCAC ~	MCN ~	US DO ▼	NSC =	Rank =			NOx 🔻	Rank 🔻		Rank 🔻		Rank 🔻		Rank 🔻	
101 Transport, Inc.	Truck	TL/Dry Van			625894	1705392	N/A	4	1675	5	5.3	5	0.042	3	86.5	5	0.31 5	5	0.00
1527530 Ontario Inc./M&M Carriers	Truck	TL/Dry Van	For-Hire	MNMR	N/A	1159500	142970520	2	1495	5	5.3	5	0.042	2	79.5	4	0.25 5	j	0.00
1541335 Ontario Inc./Road Link Xpress	Truck	TL/Dry Van	For-Hire	ROAD	442882	1063823	143440740	5	1765	4	4.3	5	0.042	5	100.5		0.25 5	5	0.0
1542300 Ontario Inc. dba ASR Transportation Inc.	Truck	TL/Dry Van	For-Hire	OFTT	442369	1057019	N/A	1	1405	2	2.3	2	0.018	1	72.5	2	0.13 2	2	0.0
1628939 Ontario Ltd. o/a P&D Freightlines	Truck	TL/Dry Van	For-Hire	PDGH	521737	1360591	N/A	4	1675	2	2.3	2	0.018	5	100.5		0.13 2	2	0.0
1st Express Inc.	Truck	TL/Dry Van	For-Hire	FSEP	181440	284589	N/A	2	1495	3	3.3	5	0.042		79.5		0.19 5	5	0.0
2119118 Ontario Inc. DBA Triple G Trucking	Truck	TL/Dry Van	For-Hire	TPKB	957820	2859549	N/A	3	1585	5	5.3	5	0.042	2	79.5	4	0.25 5	5	0.0
2210310 Ontario Inc./Dynamic Freight Haulers	Truck	TL/Dry Van	For-Hire	DFHR	691346	1937957	N/A	4	1675	4	4.3	5	0.042	3	86.5	4	0.25 5	5	0.0
2241552 Ontario Inc / Skyway Carrier	Truck	TL/Dry Van	For-Hire	SWIVC	NI/A	250633	N/A	3	1585	3	3.3		0.018	4	93.5		0.19 2	2	0.0
2322819 Ontario Inc./Right Service Right Choice	Truck	TL/Dry Van	For-			2294033	173-333-054	4	1675	3	3.3	5	0.042	2	79.5	3	0.19 4	4	0.0
3NT, LLC.	Truck	TL/Dry Van	For BI	n ran	kings	2042543		4	1675	5	5.3		0.026	5	100.5	5	0.31 3	3	0.0
5/D Express, Inc.: fdrp	Truck	TL/Dry Van	For-		83	1243083	N/A	5	<b>17</b> 65	3	3.3	4	0.034	5	100.5	4	0.25 4	4	0.0
6233317 Canada Inc. DBA Rockwell Truck Line	Truck	TL/Dry Van	For-Hire	RKWT	797845	2333669	148783160	1	1405	4	4.3	5	0.042	1	72.5	3	0.19 5	5	0.0
9108-1950 Quebec inc dba Via Trans International	Truck	TL/Dry Van	Private	VTIL	471471	1175764	60331659	1	1405	1	1.3	1	0.01	1	72.5	1	0.07 1	Ĺ .	0.0
A & A Delivery LLC	Truck	TL/Dry Van	For-Hire	N/A	N/A	3013453	N/A		1405		1.3	1	0.01	5	100.5	3	0.19 5		0.0
A&M Transport, LLC: Dry Van Fleet	Truck	TL/Dry Van	For-Hire	ALKM	217072	344894	N/A	3	1585	3	3.3	4	0.034	3	86.5	3	0.19 4	4	0.0
A&R Express Lines, Inc.	Truck	TL/Dry Van	For-Hire	T.				5	1765	2	2.3		0.018	5	100.5	2	0.13 2	2	0.0
A&S Services Group, LLC	Truck	TL/Dry Van	For-Hire	∃ Fmi	ssion	factor	C \	2	1495	4	4.3	4	0.034	5	100.5	5	0.31 5	ة د	0.0
A.C. Trucking, Inc.: 12073707	Truck	TL/Dry Van		<u> </u>	331011	iactoi	<b>5</b>	4	1675	3	3.3	3	0.026		72.5	3	0.19 2	2	0.0
A.D. Transport Express, Inc.	Truck	TL/Dry Van	For-Hire	ADXK	195025	0209005	N/A	3	1585	3	3.3	2	0.018	5	100.5		0.19 2	2	0.0
A.N. Webber, Inc.	Truck	TL/Dry Van			147008	76507	N/A	3	1585	3	3.3	3	0.026	2	79.5	2	0.13 2	2	0.0
A/T Transportation, LLC.	Truck	TL/Dry Van			N/A	1486485	N/A	2	1495	2	2.3	3	0.026	4	93.5	2	0.13 3	3	0.0
AC Leasing Company Inc.	Truck	TL/Dry Van	For-Hire	ACWH	156691	264128	N/A	3	1585	4	4.3	5	0.042	1	72.5	3	0.19 5	5	0.0
ACS Logistics Transportation Inc.	Truck	TL/Dry Van	For-Hire	OFNS	548067	1450334	129295853	5	1765	4	4.3	5	0.042	4	93.5	4	0.25 5	ۇ د	0.0
AGM Transport Inc	Truck	TL/Dry Van	For-Hire	AGMP	479749	1204798	N/A	1	1405	1	1.3	3	0.026	4	93.5		0.07 3	3	0.0
AGX Freight Carriers, LLC	Truck	TL/Dry Van	For-Hire	APXY	642324	1755933	N/A	4	1675	5	5.3	5	0.042	4	93.5	5	0.31 5		0.0
ALB Express Inc.	Truck	TL/Dry Van			803750	2348464	N/A	5	1765	2	2.3	2	0.018	3	86.5	1	0.07 2		0.0
ALTL Inc	Truck	TL/Dry Van	For-Hire	ALLM	154127	169025	N/A	2	1495	1	1.3	2	0.018		79.5	1	0.07 1	L	0.0
AM International (TFI 11, S.E.C.): AM International	Truck	TL/Dry Van			488546	1257162		5	1765		2.3		0.018		79.5		0.13 1		0.0
AMC Express, Inc.	Truck	TL/Dry Van			789656	2313051	N/A	5	1765		5.3		0.042		86.5		0.31 5		0.0
ARD Express Inc.	Truck	TL/Dry Van			588686	1590621	N/A	3	1585	5	5.3	5	0.042	3	86.5	5	0.31 5	5	0.0
ASL Transportation Group, Inc.	Truck	TL/Dry Van			644828	1764745		2	1495		2.3		0.018		79.5		0.13 2		0.0
AT & R Transport	Truck	TL/Dry Van		AYAE	830510	2412919	N/A	1	1405		4.3		0.026		72.5		0.19 3	3	0.0
ATS 1, Inc.	Truck	TL/Dry Van			767159	2210783	N/A	3	1585		1.3		0.018		100.5		0.19 4		0.0
ATC INC	T	TI /Davides			Saccase	COCOCO	NI/A	<b>K</b>	1405		4.2		0.01		70.5		0.07 4		- 0.0

# SmartWay aligned with ISO 14083, WRI GHGP and GLEC











ublic Disclosure Rep	artWay®	BUILT ON GHG PROTOCOL	Report gen	erated on: 10/22/2018		
ool: Shipper				Data Year: 2017		
artner: Let Me Count	The Ways Shipping	g				
Inventory Period:	January 1, 2017 to Dec	ember 31, 2017				
Scope 3 Category	CO <sub>2</sub> Emissions (metric tonnes)	Percent of emissions calculated using data from SmartWay carriers (%)				
Category #4 - Upstream Transportation and Distribution	350,378.7					
Emissions of biogenic (	CO <sub>2</sub> (metric tonnes):	7,150.6				

## **Mandatory Reporting**

- USEPA does NOT require GHG reporting from the transport sector (freight or passenger)
- CA SB253 Climate Corporate Data Accountability Act
- CA SB261 Greenhouse gases: Climate-Related Financial Risk
- SEC Enhancement and Standardization of Climate-Related Disclosures





## **CA SB253 and SB261**



- SB253 requires companies with greater than \$1 billion annual revenue to annually report their Scope 1, 2 and 3 GHG emissions.
- "Reporting entities" include publicly traded firms and private firms
- Starting in 2026, reporting entities must annually report Scope 1 and Scope 2 GHG emissions from the prior fiscal year.
- Starting in 2027, they must report Scope 3 GHG emissions indirect <u>upstream</u> and <u>downstream</u> supply-chain emissions from the prior fiscal year.
- GHG reports must conform to the GHG Protocol
- SB261 requires starting in 2026, entities with annual revenues of \$500 million to disclose climate-related financial risks pursuant to the TCFD and measures taken to mitigate/adapt to these risks.
- Implementing regulations and reporting guidance will be forthcoming for SB253 and SB261

## **Takeaways**



#### **SmartWay provides:**

- Total mass CO2 freight emissions (plus NOx, PM, BC) for US and Canada (Mexico TBD)
- Total mass emissions per mode
- Emission intensity factors (g/mile and g/ton-mile)
- Emission intensity factors per mode
- Tank to Wheel emissions (studying incorporating WTT)
- Tracking and reporting by business unit or subsidiary
- Annual reporting cycle based on prior calendar year activity
- Scope 1 and 2 data reports for carriers and Scope 3 data for shippers and 3PLs
- Publicly accessible data sets
- EPA as neutral third-party facilitating data exchange between Carriers, 3PLs, and Shippers
- Data that firms are using in their CDP, GRI, CSR and other public disclosure reporting
- Aligned with prevailing global frameworks and methodologies

