



Air Quality Accomplishments and Challenges in the West

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West Coast Collaborative

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EPA's Top Priorities



- Taking Action on Climate Change
- Improving Air Quality
- Assuring the Safety of Chemicals
- Cleaning up Our Communities
- Protecting America's Waters
- Expanding the Conversation on Environmentalism and Working for Environmental Justice
- Building Strong State and Tribal Partnerships



A History of Success with DERA and ARRA



- We have awarded over \$85 Million
- Leveraged over \$100 Million
- Reduced thousands of tons of pollution
 - 1,545 tons of PM
 - 26,401 tons of NOx
- Avoided \$3 Billion in health costs

West Coast Ports Lead the Way

- Northwest Ports Clean Air Strategy



- San Pedro Bay Ports Clean Air Action Plan



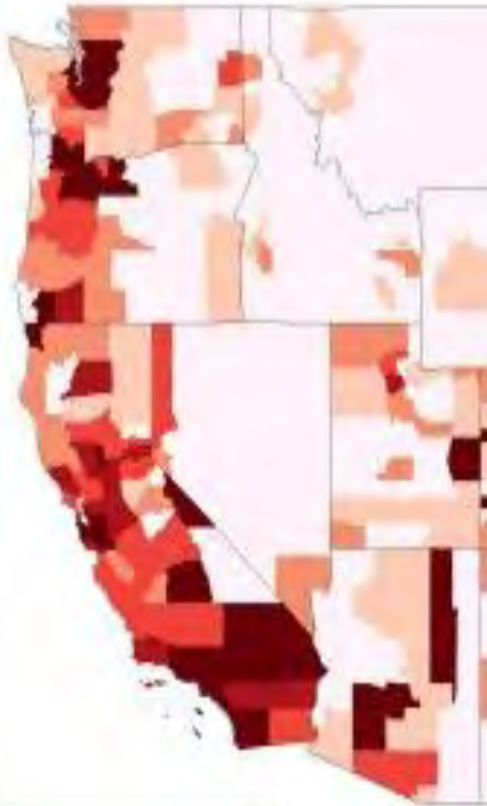
San Pedro Bay Ports
Clean Air Action Plan





Air Toxics and NAAQs

Air Toxics Risk



2002 National Scale Assessment
Noncancer Risk

Ozone Nonattainment



PM2.5 Nonattainment





EPA's Clean Diesel Regulations

Tier 2 Light-Duty

final rule 1999

fully phased in 2009

Diesels held to same stringer standards as gasoline vehicles



Heavy-Duty Highway

sales 800,000 / yr

40B gallons / yr

final rule 2000

fully phased in 2010



Locomotive/Marine

sales 40,000 marine engines,

1,000 locomotives / yr

6B gallons / yr

final rule 2008

fully phased in 2017



Ocean Going Vessels

C3 Rule Dec 2009

IMO MARPOL Annex VI

ECA Controls



Nonroad Diesel

sales over 650,000 / yr

12B gallons / yr

final rule 2004

fully phased in 2015



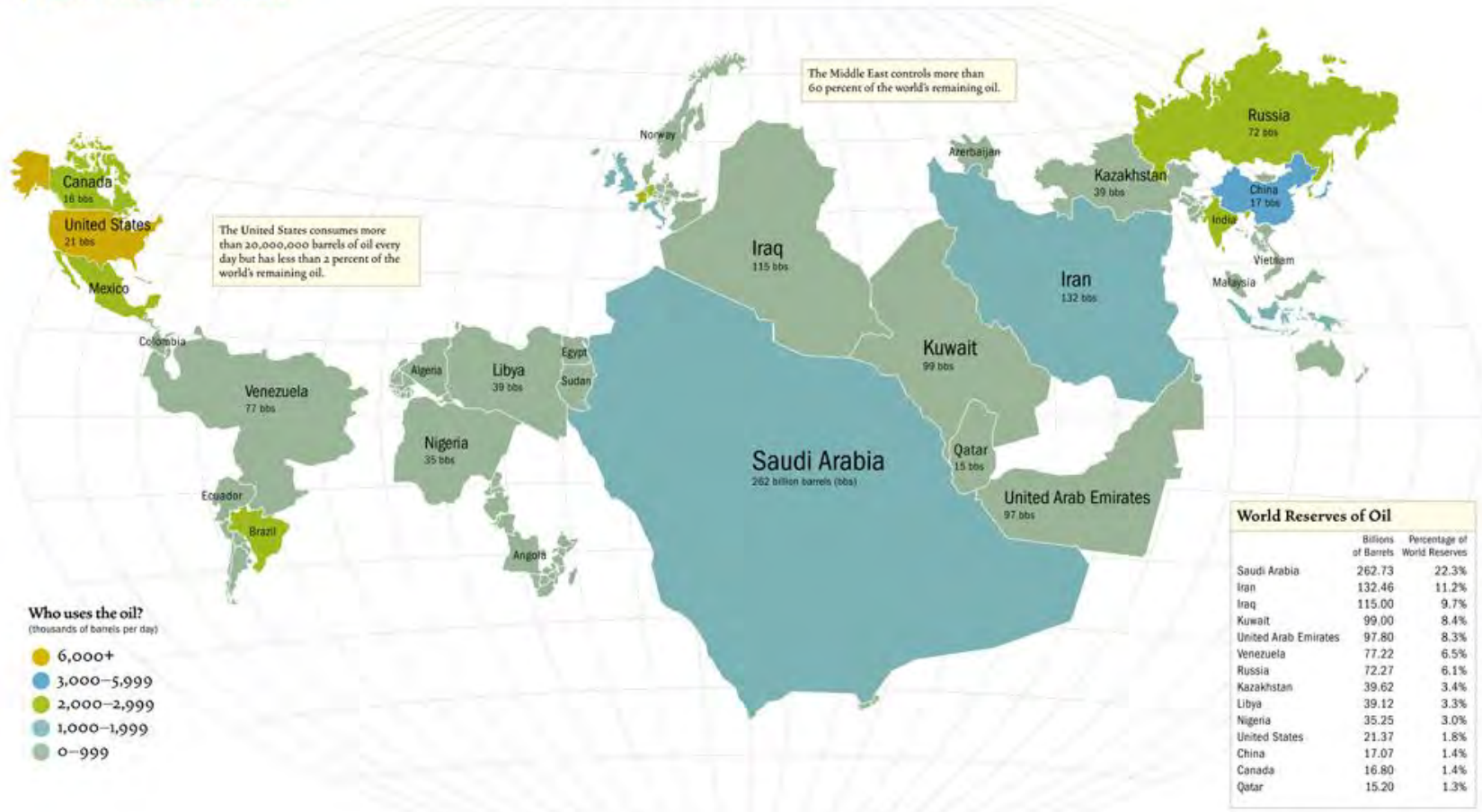
Note: sales and diesel fuel usage vary year-to-year; these figures are for comparison purposes only





The World According to Oil Reserves

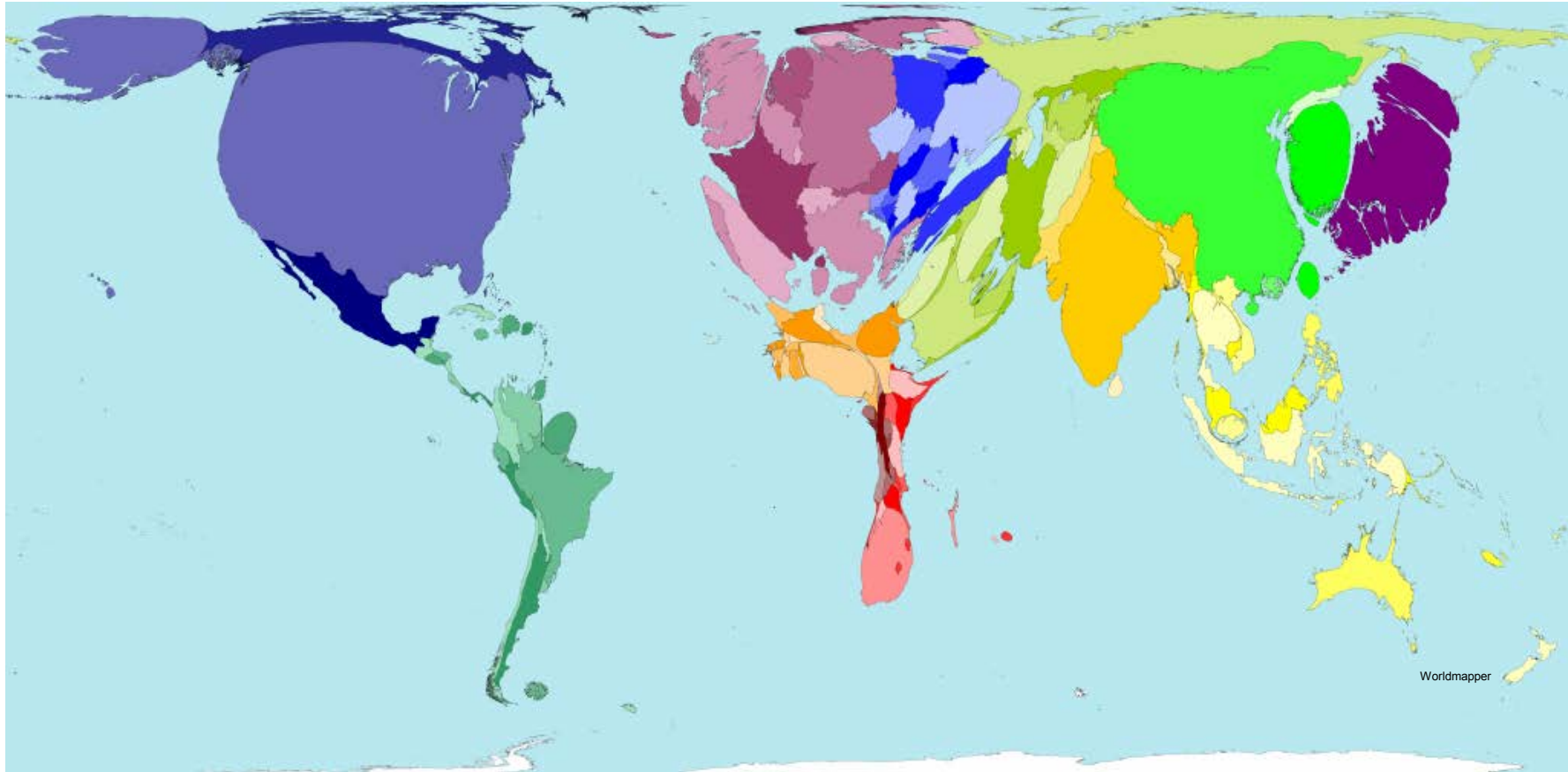
Who has the oil?



Each country's size is proportional to the amount of oil it contains (oil reserves). Source: BP Statistical Review Year-End 2004 & Energy Information Administration

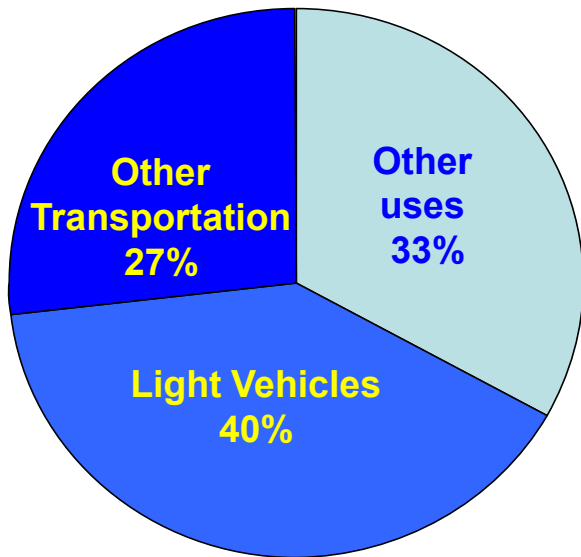


The World According to Fuel Consumption





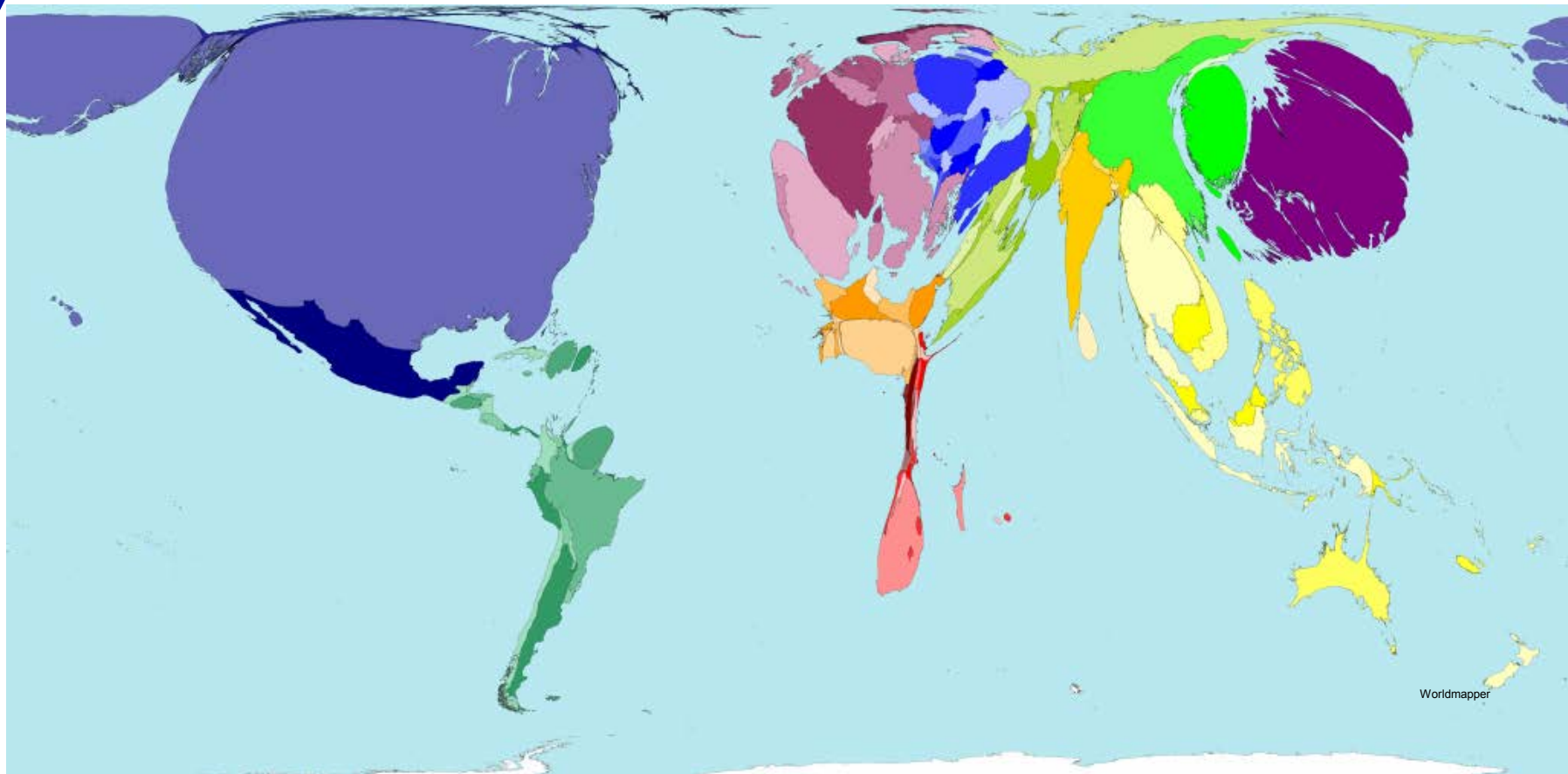
Transportation and Oil Consumption



The United States is the world's largest oil consumer, accounting for one-fourth of global oil demand. The majority—67 percent—is used in transport

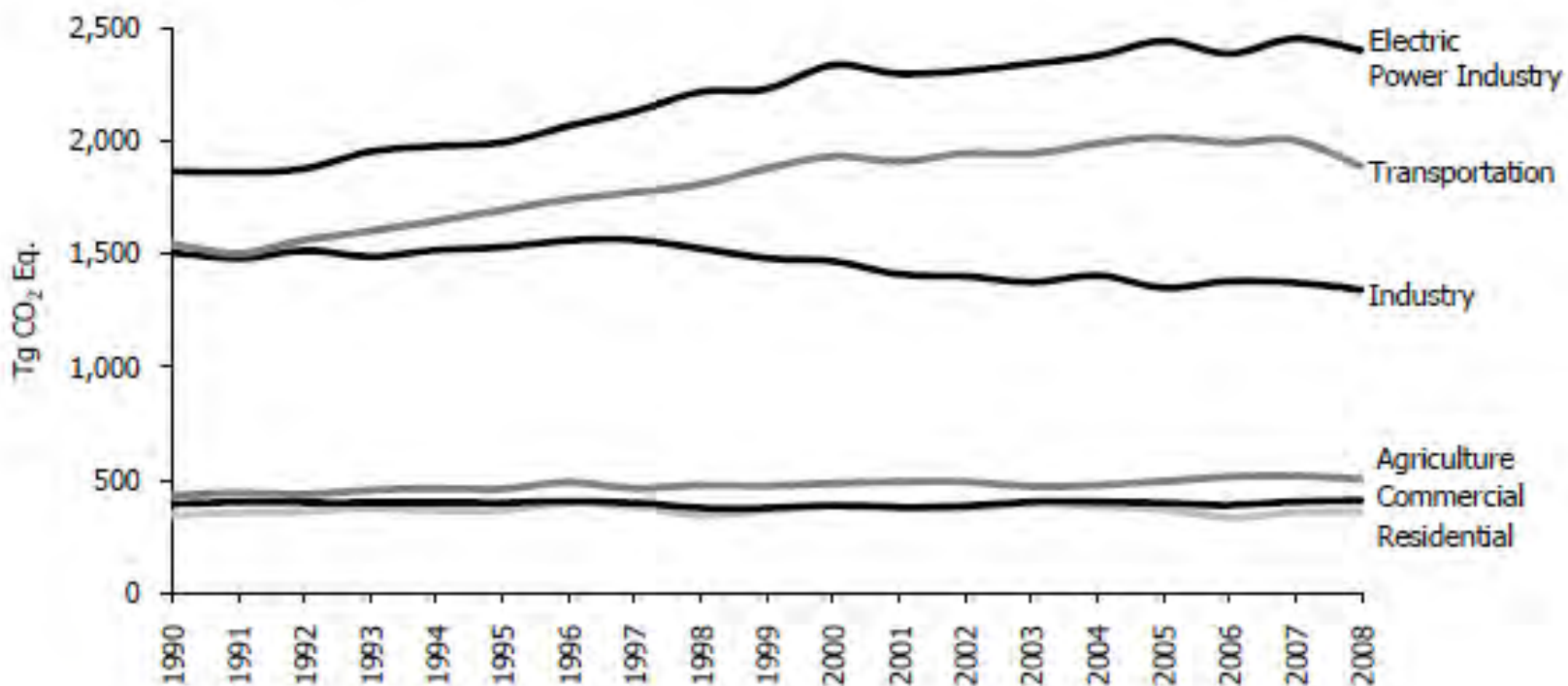


The World According to Vehicle Freight Miles





GHG Emissions Allocated to Economic Sectors



INVENTORY OF U.S. GREENHOUSE GAS EMISSIONS AND SINKS: 1990-2008
(April 2010) U.S. EPA # 430-R-10-006



WCC Projects are Helping to Reduce Fuel Consumption

- Reducing Wasteful Idling:
 - Heaters, APUs, etc.
 - Truck Stop Electrification
- Shore side power and electrification of cargo handling equipment
- New alternative fuel and hybrid vehicles
- Smartway certified truck aerodynamics





Goods Movement and the West Coast Ports



Origin: Shanghai*		CO2 emissions (metric ton/TEU)		
Discharge Port	Ship Size	Chicago	Columbus	Memphis
Seattle	6,500 TEU	1.579	1.664	1.715
Oakland	6,500 TEU	1.686	1.772	1.694
LA/LB	6,500 TEU	1.663	1.748	1.663
Prince Rupert	6,500 TEU	1.598	1.680	1.725
New York via Panama Canal	4,500 TEU	2.520	2.468	2.574
Norfolk via Panama Canal	4,500 TEU	2.493	2.401	2.482
Savannah via Panama Canal	4,500 TEU	2.469	2.556	2.369
Houston via Panama Canal	4,500 TEU	2.470	2.510	2.323



Pacific Coast Collaborative

Premier of British Columbia and the governors of Alaska, California, Oregon and Washington established a formal basis for cooperative action on Innovation, the Environment and the Economy.



- Feb. 12, 2010 the leaders of British Columbia, California, Oregon and Washington agreed to transportation actions including:
 - Build a Pacific Green Highway transforming Interstate 5 (US) / Highway 99 (B.C.) corridor to establish infrastructure for alternative fuels.
 - Collaborate on next generation biofuels, including cellulosic ethanol and biodiesel blends.
 - Work towards — **Green Ports**” encouraging innovative and sustainable technologies to reduce air pollution and energy consumption.



The EV Project

The EV Project is the largest deployment of electric vehicles and charge infrastructure in history

- ECOtality North America will deploy nearly 15,000 charging stations in 16 cities located in six states (Oregon, Washington, California, Arizona, Tennessee and Texas) and the District of Columbia.



Charging Infrastructure Locations

- 14,650 Level 2 (220V) Chargers
- 310 DC Fast-Chargers
- 40+ Project Partners
- 5,700 Nissan LEAF Cars
- 2,600 Chevrolet Volt Cars
- 1,200 New Jobs by 2012
- 5,500 New Jobs by 2017



New Clean Vehicle Standards

- First national greenhouse gas standards in the U.S.
 - 23% reduction
- Equivalent to 35.5 mpg if all reductions came from fuel economy improvements
- Benefits
 - 1.8 billion barrels of oil reduced
 - 960 million metric tons of CO₂ reduced
 - Total benefits of \$240 billion



White House Announcement - May 2010



- Next phase of National Clean Car Program: MY2017 - 2025
- First-ever GHG/Fuel Economy Standards for Commercial Trucks
- Review of non-GHG Standards for Passenger Vehicles

May 21, 2010



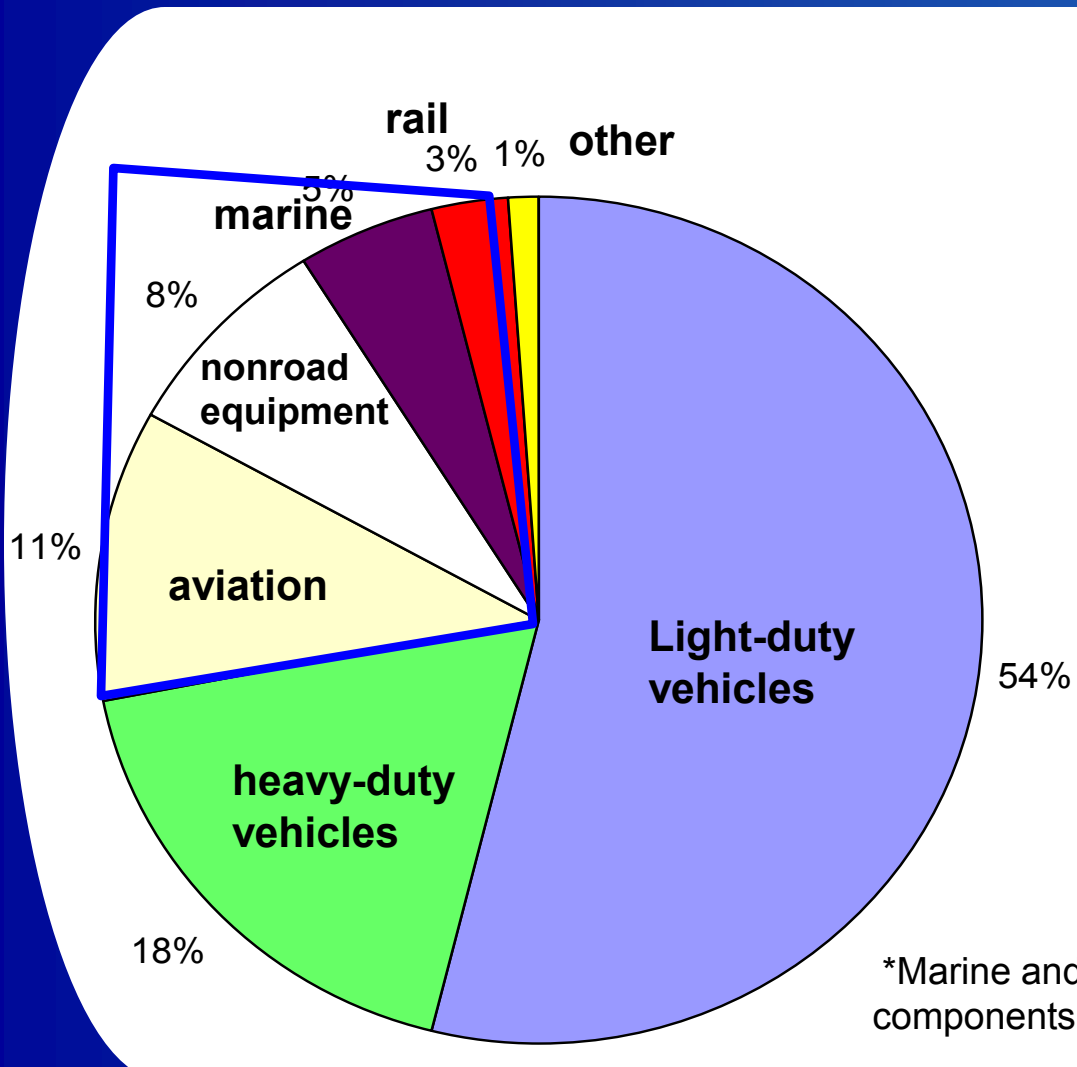
GHG Standards for Trucks

- EPA and NHTSA will work on joint rulemaking under the CAA and EISA to establish fuel efficiency and GHG emissions standards for commercial MD and HD vehicles, beginning in model year 2014.
- The Administrators of EPA and NHTSA are requested to:
 - include fuel efficiency and GHG standards that take into account the market structure of the trucking industry and unique demands of HD vehicle applications
 - Seek harmonization with applicable State standards
 - Consider the findings and recommendations of the NAS report on MD and HD truck regulation
 - Strengthen the industry and enhance job creation in the US
- Final rule to be issued by July 30, 2011





Marine/Aircraft/Nonroad GHG Petitions

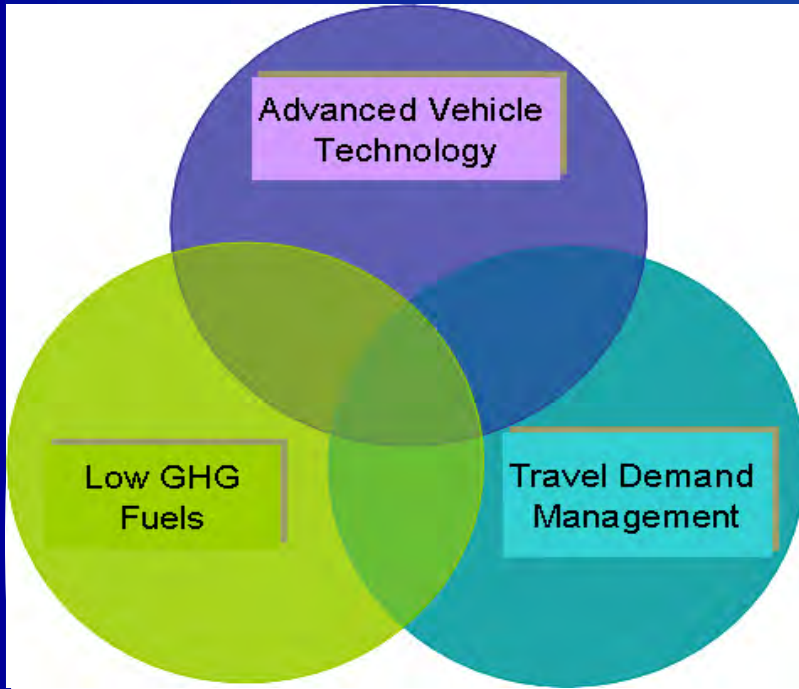


- Plaintiffs: Center for Biological Diversity (CBD); Center for Food Safety; Friends of the Earth (FOE); International Center for Technology Assessment (ICTA); Oceana
- As marine and aviation present important international considerations, we are pursuing C3 OGV marine and aircraft GHGs through international forums

*Marine and aviation sectors have substantial international components that are not reflected in this pie chart



Technology Transformation Not Enough



- Low Carbon Vehicles and Fuels Necessary, but Insufficient
- Need to Improve the System
- Significant Infrastructure Changes Needed
- Align Transport Funding with National Climate and Energy Goals





Conclusion

—There is no greater prize in life than working hard at work worth doing”

--President Theodore Roosevelt