

# Driving Efficiency: Cutting Costs for Families at the Pump and Slashing Dependence on Oil

OBAMA ADMINISTRATION Fuel Economy Standards

In the year 2025

The fleet-wide average will be



Consumers will have saved  
**\$1.7 TRILLION**  
at the pump over the  
life of the program.



A family that purchases a new  
vehicle in 2025 will save

**\$8,200**

in fuel costs when compared with  
a similar vehicle in 2010.

Over the life of the program, the standards will:

Save **12** billion  
barrels  
of oil.

Eliminate **6** billion  
metric  
tons  
of carbon dioxide pollution.



This program, together with standards already put into place by this  
administration for Model Years 2011-2016, will result in significant  
cost savings for consumers at the pump, dramatically reduce oil  
consumption, cut pollution and create jobs.



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## INTRODUCTION

For decades, politicians of every stripe have been talking about the threats posed by our dependence on oil – to consumers, our security, and our environment. One of the most powerful tools we have to reduce our oil dependence is to increase the efficiency of our cars and light trucks, which account for nearly half of U.S. oil consumption. And transportation is the second-highest expense for most American households – right after housing. But when President Obama took office, the fuel economy standard for passenger cars was the same as it had been in 1985.

After decades of inaction in this critical area, President Obama has taken unprecedented steps to increase our vehicle efficiency, announcing fuel economy standards that will nearly double the efficiency of our fleet. In 2009 the President established aggressive fuel economy standards for cars and trucks built in 2011 and announced groundbreaking national fuel efficiency standards and greenhouse gas standards for cars and light-duty trucks built in 2012-2016. By Model Year 2016, those national standards will raise the average fuel economy of new cars and trucks to 35.5 miles per gallon (incorporating efficient gains from air conditioning improvements) and lower greenhouse gases emissions to 250 grams per mile (g/mi), while maintaining consumer choice. At the same time, the Administration established a harmonized program that allows manufacturers to build a single, light-duty national fleet that satisfies all federal requirements as well as those of California and other states.

On July 29, 2011, the President announced the next phase in the Administration's program to increase fuel economy and reduce greenhouse gas pollution for all new cars and trucks sold in the United States. These new standards will cover cars and light trucks for Model Years 2017-2025, requiring performance equivalent to 54.5 mpg in 2025 while reducing greenhouse gas emissions to 163 grams per mile.

Taken together, the standards established under this Administration span Model Years 2011 to 2025. They will save American families money at the pump, for a total of \$1.7 trillion in fuel savings over the life of the program. The standards will cut our oil dependence, reducing oil consumption by an estimated 2.2 million barrels a day in 2025 (eventually reaching more than 4 million barrels a day as the fleet turns over), and saving 12 billion barrels in total over the lifetime of the program. And they will clean up our environment, cutting greenhouse gas emissions by more than 6 billion metric tons over the life of the program, while reducing pollutants like air toxics, cause soot, and smog.

Developed in partnership with auto manufacturers, the State of California, the United Auto Workers (UAW), national environmental organizations, and other stakeholders, these achievable and cost effective standards will bring the nation over halfway to the President's goal of reducing oil imports by a third by 2025. These standards thus represent a key component of the comprehensive energy policy that this Administration has pursued since day one, which aims to increase safe and responsible energy production at home while reducing our overall dependence on oil with cleaner alternative fuels and greater efficiency.

## HIGHLIGHTS OF THE OBAMA ADMINISTRATION FUEL ECONOMY STANDARDS FOR MY2011-2025

Taken together, the standards established under this Administration span Model Years 2011 to 2025. They will save consumers money, reduce our dependence on oil, and protect the environment.

### *Savings at the pump.*

- Thanks to the standards, consumers will **save an estimated \$1.7 trillion dollars in real fuel costs** over the life of their vehicles.
- By 2025, the standards are projected to save families **an estimated \$8,200 in fuel savings over the lifetime of a new vehicle**, relative to the Model Year 2010 standard.

### *Cutting oil dependence.*

- As our cars and trucks become more fuel efficient, we will need to use less oil. Over the life of the program, the standards **will save an estimated 12 billion barrels of oil** – nearly four years’ worth of consumption by light-duty vehicles at current levels.
- By 2025, the standards for MY 2011-2025 will **reduce oil consumption by an estimated 2.2 million barrels a day** – more than we import from any country other than Canada. As the vehicle fleet turns over and older vehicles are replaced with more efficient ones, the oil savings from these standards will grow, ultimately reaching over 4 million barrels a day – nearly as much as we import from all OPEC countries combined.
- The MY 2011-2025 standards are critical to meeting President Obama’s goal of cutting oil imports by one-third by 2025, contributing **over half the savings needed to meet the President’s goal**.

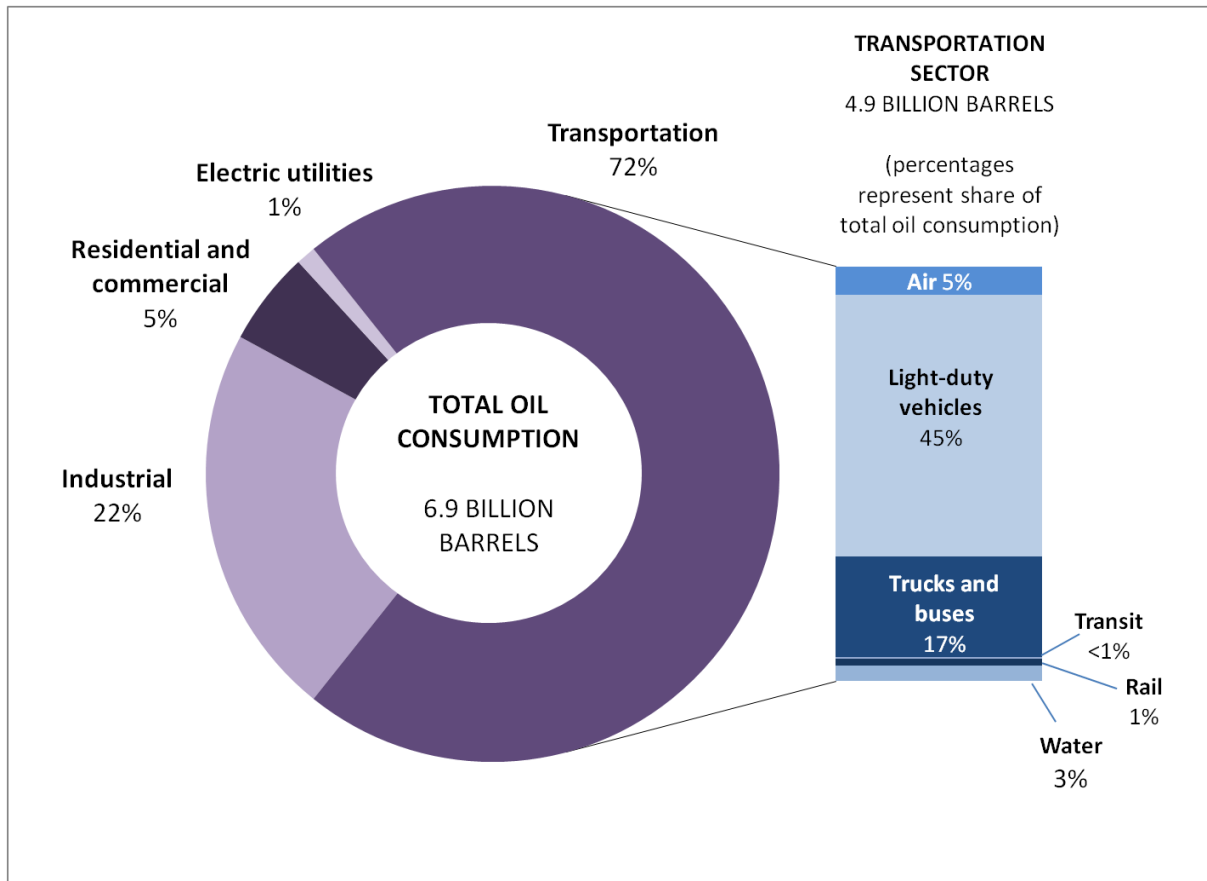
### *Protecting human health and the environment.*

- The standards will **reduce carbon dioxide pollution by over 6 billion metric tons** – equivalent to the emissions from the United States last year, or what the Amazon rainforest absorbs in three years.
- The standards will **protect public health by cutting air pollutants** such as air toxics, smog, and soot.

## BACKGROUND ON FUEL ECONOMY STANDARDS

The transportation sector consumed nearly 5 billion barrels of petroleum in 2009, accounting for over 70% of oil consumption in the United States (Chart 1). The lion’s share of that – 45% of total consumption – was in passenger cars and light trucks, collectively referred to as “light-duty vehicles.” The sheer size of the light-duty vehicle fleet makes fuel economy standards on cars and light trucks one of the most effective ways we can reduce our dependence on oil.

**CHART 1: U.S. OIL CONSUMPTION BY SECTOR, 2009**



Since 1978, the National Highway Traffic Safety Administration (NHTSA) has been setting fuel economy standards, known as Corporate Average Fuel Economy (CAFE) standards, that automakers must meet in each Model Year. They were first established by the Energy Policy and Conservation Act (EPCA) of 1975, in response to the concerns about oil dependence in the wake of the 1973-1974 Arab oil embargoes.

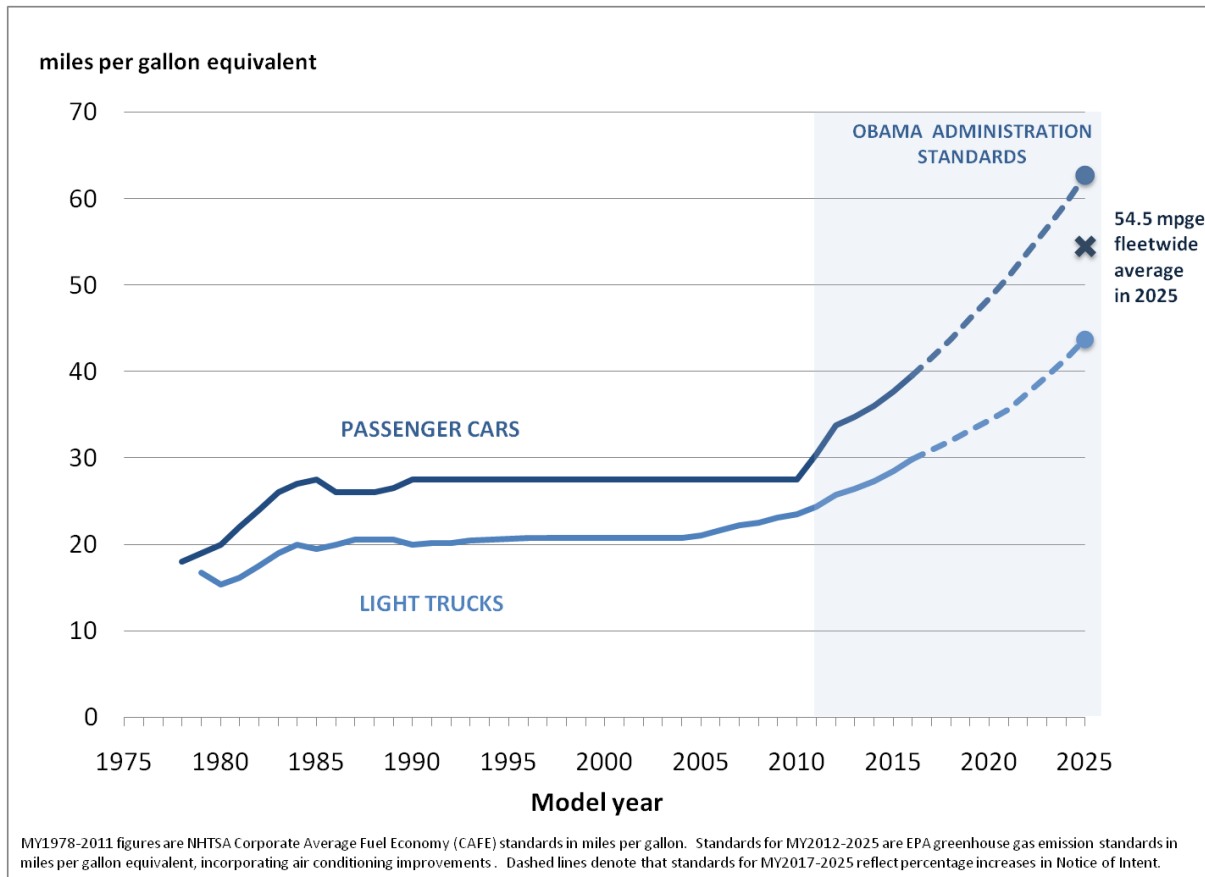
The first standards raised fuel economy for passenger cars from a level of 13 miles per gallon (mpg) in 1974 to 27.5 mpg in 1985. But after this initial burst of activity, the standards stayed flat for twenty-five years (even dipping for a few years in the late 1980s). When President Obama took office, the CAFE standard for passenger cars remained stuck at 27.5 mpg. Meanwhile, fuel economy standards for light-duty trucks rose slowly from 17.2 mpg for Model Year 1979 to 20.7 mpg for MY 1996. NHTSA increased the standards in 2003 and then again in 2006, replacing the single average standard for each automaker’s light-truck fleet with a size-based system that tied mileage requirements to a vehicle’s “footprint” – an approach that has since been adopted for passenger cars as well.

The Energy Independence and Security Act (EISA) of 2007 restructured and strengthened the CAFE program, requiring that the combined passenger car and light truck fleet reach 35 mpg by MY2020. Immediately after taking office in January 2009, President Obama directed NHTSA to

issue CAFE standards for Model Year 2011. Then, in April 2009, the President announced a historic agreement with a range of stakeholders – including automakers, the State of California, the UAW, and national environmental organizations – to further raise fuel economy standards and establish the nation’s first-ever greenhouse gas standards. The result was a unified approach that harmonizes NHTSA’s CAFE standards for fuel economy, the Environmental Protection Agency’s automotive greenhouse gas standards under the Clean Air Act, and California’s greenhouse gas program. Issued jointly by NHTSA and EPA in April 2010, the new federal standards are already making a difference in the fuel economy of the cars and trucks rolling off assembly lines today. Over the coming years, the standards continue to strengthen, so that the light-duty vehicle fleet in MY 2016 will achieve performance equivalent to 35.5 mpg (as measured by EPA regulations) and attain a 250 g/mi greenhouse gas standard.

The new standards for Model Years 2017-2025 will build on that historic achievement. EPA and NHTSA have worked closely with stakeholders for months to ensure that these standards are achievable, cost-effective, and preserve consumer choice. Under the program, the stringency of standards for passenger cars will increase by an average of five percent each year. The stringency of standards for pick-ups and other light-duty trucks would increase an average of 3.5 percent annually for the first five Model Years and an average of five percent annually for the last four Model Years of the program, to account for the unique challenges associated with this class of vehicles.

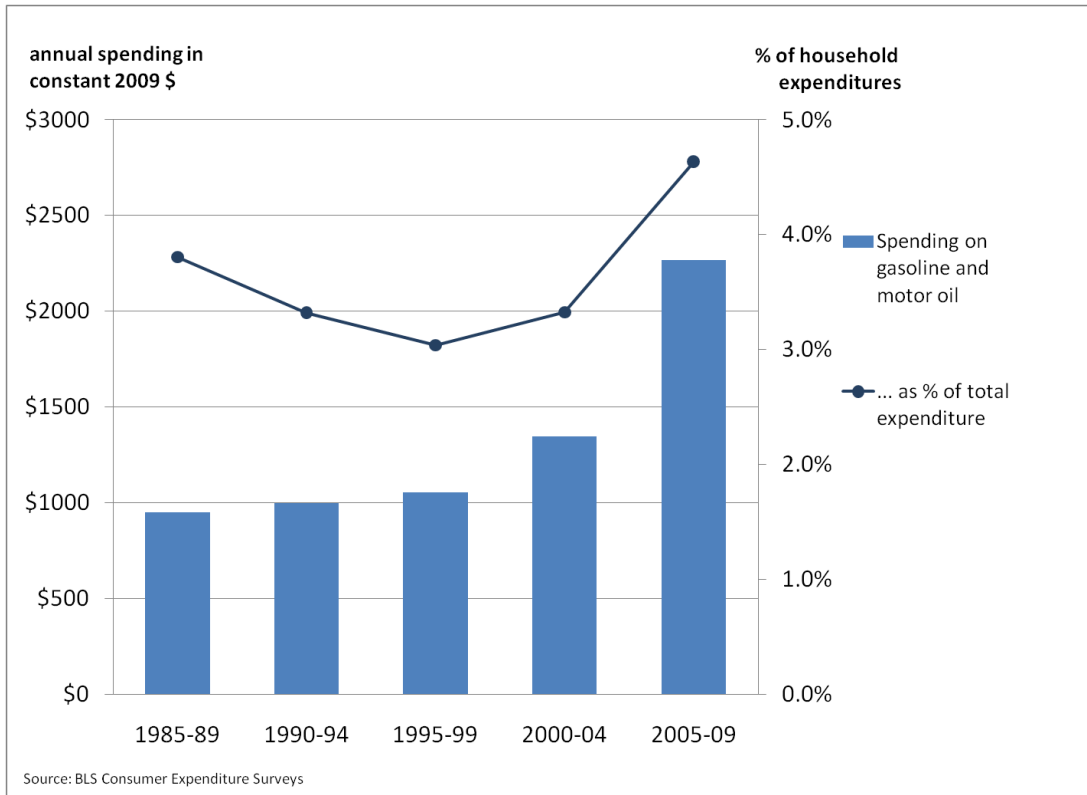
**CHART 2: LIGHT-DUTY VEHICLE FUEL ECONOMY STANDARDS, 1978-2025**



## SAVING CONSUMERS MONEY AT THE PUMP

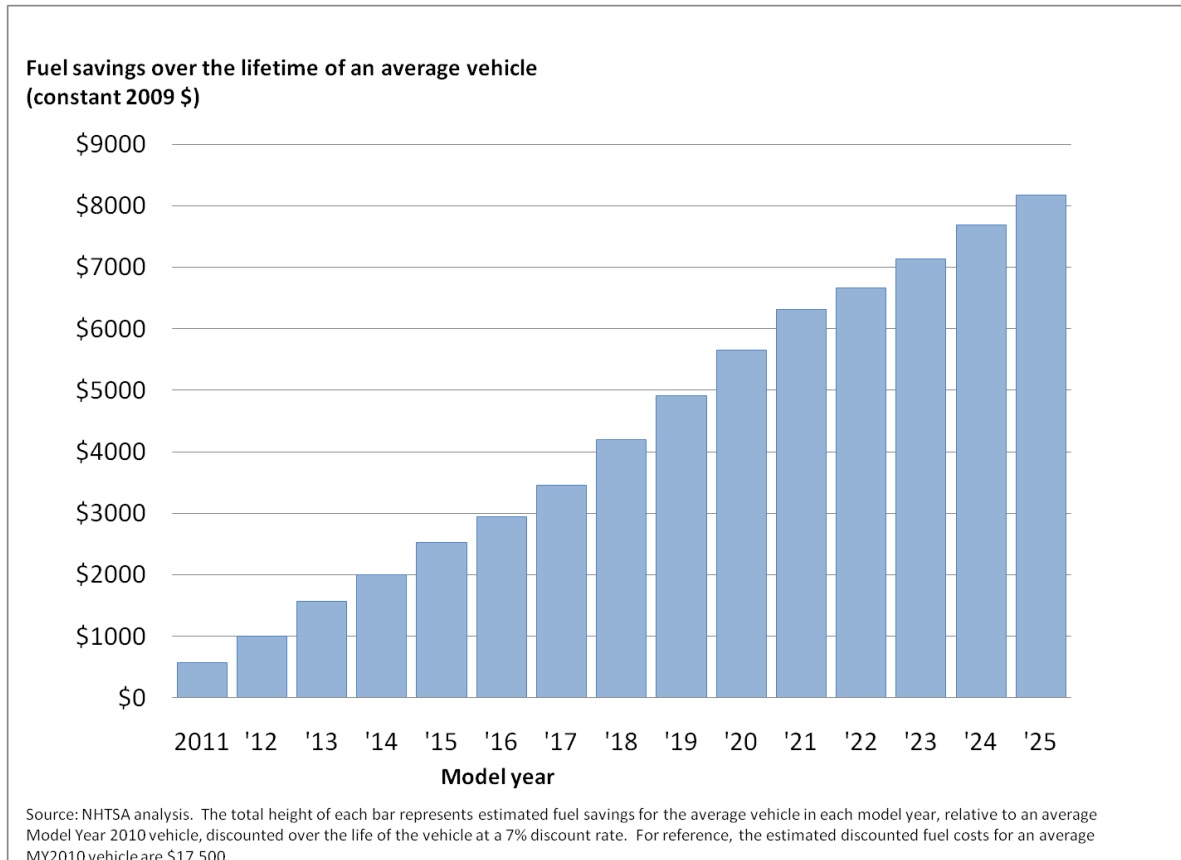
In an economy that currently relies on oil, the price at the pump affects everybody—workers, farmers, truck drivers, small business owners. As long as we depend on oil to fuel our cars, volatile gas prices will continue to affect businesses’ bottom lines and families’ pocketbooks. But while fuel expenditures have climbed sharply over the past twenty five years, both in dollar terms and as a percentage of income, fuel economy standards have stayed flat. Over the period 2005-2009, the average household spent over \$2,200 per year on gasoline and motor oil each year, more than 4.5% of total household expenditures (Chart 3). In real dollar terms, that’s more than twice what households spent from 1985-1999, and a sharp increase from the first half of the last decade.

**CHART 3: AVERAGE ANNUAL HOUSEHOLD SPENDING ON GASOLINE AND MOTOR OIL, 1985-2009**



Thanks to the Administration’s fuel economy standards, a family that purchases a new car or truck will save thousands of dollars in fuel over the lifetime of the vehicle, on average, compared with a similar vehicle from Model Year 2010. Those savings increase steadily to nearly \$8,200 for a new vehicle purchased in 2025 (Chart 4). That works out to hundreds of dollars in savings for households every year, year after year. (For reference, the average estimated fuel cost over the lifetime of a Model Year 2010 vehicle is \$17,500.)

**CHART 4: ESTIMATED FUEL SAVINGS OVER THE LIFETIME OF AN AVERAGE VEHICLE, MODEL YEARS 2011-2025**



When summed over all vehicles projected to be sold in Model Years 2011-2025, these savings amount to \$1.7 trillion dollars in total savings to consumers as a result of the Administration’s fuel economy standards. (That \$1.7 trillion represents the savings to consumers in future years; it equals \$560 billion in present value discounted back to today.)

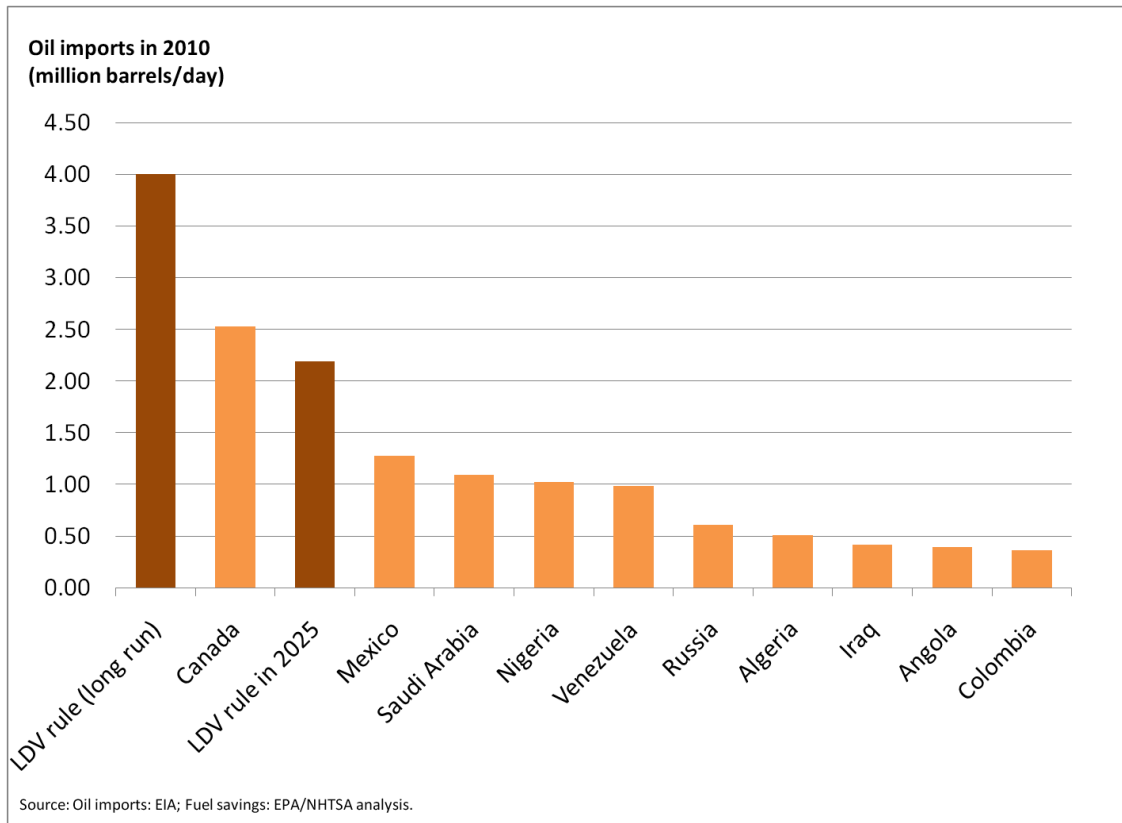
**CUTTING OIL DEPENDENCE**

The events in Libya and the Middle East over the past months serve as a compelling reminder of the importance of securing our energy future by reducing our dependence on oil.

Since cars and light trucks account for 45 percent of total oil consumption in our economy, improving light-duty fuel economy is one of the most powerful levers we have for reducing oil dependence. The fuel economy standards will reduce oil consumption by an estimated 2.2 million barrels a day by 2025. To put that in context, that’s more oil than we import from any country except Canada (Chart 5). As the vehicle fleet turns over and older vehicles are replaced with more efficient ones, the oil savings from these standards will grow, ultimately reaching over 4 million barrels a day – nearly as much as we import from all OPEC countries combined. Over the life of the program, the new standards will save an estimated 12.2 billion barrels of oil – equivalent to nearly four years’ worth of fuel consumption by light-duty vehicles.



**CHART 5: PROJECTED FUEL SAVINGS COMPARED WITH 2010 OIL IMPORTS**



These reductions in oil consumption will play a crucial role in helping to achieve President Obama’s goal of cutting oil imports by one-third by 2025. In fact, if all the reductions in oil consumption came from imported oil, the fuel economy standards alone would get us more than half of the way to the President’s goal.

### **PROTECTING HUMAN HEALTH AND OUR ENVIRONMENT**

By using less oil, we will also protect human health by reducing air pollutants, and we will secure our environment for future generations. The standards for Model Years 2011-2025 will reduce carbon dioxide pollution by more than 6 billion metric tons over the lifetime of the vehicles – equivalent the carbon dioxide emissions from the United States last year, or what the Amazon rainforest absorbs in three years. And by driving more fuel efficient cars and trucks, we will reduce emissions of the pollutants that contribute to local air pollution problems from smog and soot, as well as air toxics.

### **ESTABLISHING A FOUNDATION FOR U.S. LEADERSHIP IN AUTO MANUFACTURING**

The MY 2011-2025 standards build on the Administration’s efforts to strengthen the U.S. auto industry by providing a single national program for compliance. The standards establish clarity and predictability, allowing automakers the certainty they need to make investments in new

technologies and new manufacturing capacity here in the U.S. In doing so, they provide the foundation for U.S. leadership in advanced vehicle manufacturing.

The U.S. auto industry is at the core of our manufacturing sector, employing 700,000 Americans manufacturing vehicles and vehicle parts, over one million involved in the sales and servicing of automobiles, and many more providing components and services to the industry. The President recognizes the vital importance of auto manufacturing jobs to communities and families across our country. In 2008, the combination of an historic recession and the financial crisis caused the loss of over 400,000 auto jobs and pushed the industry to the brink of collapse. In the face of this crisis, the President chose to stand behind the American auto industry and the countless workers, communities and businesses that depend on the U.S. automotive industry. Some experts estimated that were GM and Chrysler to liquidate, over 1 million jobs could have been lost. That decision was the right one. Since July of 2009, the auto industry has created over 113,000 jobs, its strongest period of job growth since the late 1990s, and Chrysler has repaid its outstanding loans to the U.S. Treasury. The Administration has also invested in the future of U.S. auto manufacturing, making historic investments through the Recovery Act in advanced vehicle technologies and infrastructure. With the support of this Administration's investments, companies like Nissan and Ford are retooling and investing in new manufacturing capacity to build new, advanced vehicles in places like Smyrna, TN and Wayne, MI.

Vehicle fuel economy is an increasingly important factor for consumers as they consider new vehicle options. According to a recent study, 42% of consumers view fuel economy as an 'Extremely Important' purchase decision factor, up from 14% a decade ago.<sup>1</sup> Over the past several years, average fuel economy for passenger cars has improved from 31 mpg in 2007 to 34 mpg in 2010. The average vehicle is up to 29 mpg in 2010. In addition, demand for advanced technology vehicles has also increased, growing 37% in the first quarter of 2011. These vehicles make up a small portion of overall sales, but they are growing rapidly.

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<sup>1</sup> Ford Motor Company. "MPG Matters: 42 Percent Say Fuel Economy Is Key in New Vehicle Purchase Decision; Influence Likely to Grow," [http://media.ford.com/article\\_display.cfm?article\\_id=34825](http://media.ford.com/article_display.cfm?article_id=34825)

## A NEW GENERATION OF FUEL-EFFICIENT CARS AND TRUCKS

Fuel efficiency has long been considered the realm of small, lightweight cars. But as consumers demand more fuel-efficient vehicles, automakers are responding with innovations that turn the conventional wisdom on its head – and demonstrate the gains in fuel economy that can be achieved with affordable technologies that are on the road today.

- The EcoBoost V6 engine package in the **Ford** F-150 full-size truck gets 22 mpg on the highway, a fuel economy savings of up to a 20% over the larger V8 package, while maintaining 365 horsepower and 420 lb-ft of torque. Demand for the EcoBoost engine in the F-150 has increased each month since its launch and is now running at approximately 40% of F-150 orders. Later this year, Ford plans to bring the EcoBoost engine to the Explorer SUV and the Edge CUV.
- In much the same way, **General Motors** is seeing – and responding to – increased demand for more fuel-efficient vehicles. GM's year-to-date sales are up, due to increased demand for its passenger cars, so much so that for the first time in 20 years, a majority of the company's sales came from passenger cars rather than from trucks, SUVs, and crossover vehicles. Paving the way have been the Chevrolet Cruze and Malibu, two of the company's mid-size offerings, with fuel economy ratings of 42 miles per gallon and 33 miles per gallon. In June, these two vehicles ranked 3<sup>rd</sup> and 4<sup>th</sup> in sales, respectively, across all vehicles and brands.
- The **Hyundai** Elantra, one of the most fuel efficient cars on the road (with a highway rating of 40 mpg), was rated number 1 out of 33 "Affordable Small Cars" by U.S. News for Model Year 2011. The 2012 Elantra includes Hyundai's Active Eco System, which modifies engine and transmission control to smooth out throttle responses and offers drivers up to a 7% increase in real-world fuel economy.
- Finally, the first dedicated **Lexus** hybrid is the HS 250h sedan, originally introduced in 2010. With 187 horsepower, this luxury sedan is reported to reach 60 mph from a stop in 8.4 seconds, and still gets gas mileage of 35 mpg (city) and 34 mpg (highway). Using innovative technology, manufacturers such as Lexus are offering flexibility to drivers so that they can have a high-powered vehicle when passing, and a highly fuel efficient vehicle when navigating city streets.