



Gobbling Less Gas for Thanksgiving

How Clean Cars Will Cut Oil Use and Save Americans Money



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Executive Summary

America's dependence on oil threatens our environment, our economy, and our national security. Whether it is the scars left by the oil spills in the Yellowstone and Kalamazoo rivers and the Gulf of Mexico, the \$1 billion that American families and businesses send overseas every day for oil, or the nearly 2 billion metric tons of global warming pollution emitted annually which fuels more and more extreme weather, these problems demand that we break our dependence on oil.¹

The U.S. consumes more than 19 million barrels of oil each day. Nearly two-thirds of that is consumed by the transportation sector,² with the largest percentage being consumed by passenger cars and light duty trucks, such as SUVs, vans, and pickup trucks.³ All of this oil consumption produces air pollution that causes global warming.

We can cut our oil use and reduce this dangerous pollution by requiring automobile manufacturers to meet stronger global warming pollution and fuel efficiency standards. Adopting the strong fuel efficiency standards under consideration now is our

nation's greatest opportunity right now to cut America's oil consumption, reduce global warming pollution from the transportation sector, and deliver important economic benefits to both consumers and businesses—including saving Americans billions of dollars at the pump.

The week of Thanksgiving is one of the busiest travel weeks of the year, when many Americans are hit hard by the economic pain of our dependence on oil. While not everyone will be traveling over the river and through the woods, Americans will drive to Thanksgiving dinners all across the country in cars that gobble up too much gas at the pump, generating global warming pollution that threatens our environment while also unnecessarily emptying our wallets. With over 38 million people driving to visit family and friends on trips of at least 50 miles, Americans are expected to spend \$552 million at the gas pump this Thanksgiving holiday. However, if the average passenger vehicle met a 54.5 miles per gallon (mpg) standard instead of the current 26.4 mpg standard, Americans would save \$260 million at the gas pump on Thanksgiving

travel this year and cut gasoline consumption by 75 million gallons—more than 4 times the amount of oil we imported from Saudi Arabia last year.⁴ In addition, global warming pollution emissions from the average car or light truck would be cut by 47%.⁵ The typical American family traveling this Thanksgiving would save \$14.90, enough money to bring a few extra pumpkin pies for Thanksgiving dinner.⁶ While families in all 50 states would experience roughly the same savings, California, Texas, Florida, New York and Illinois would see the largest overall consumer savings and the largest reductions in gasoline consumption.

We already have cleaner and more fuel-efficient cars in dealer showrooms and on the road, and American ingenuity has provided the technology to make the nation's entire vehicle fleet much cleaner and more fuel-efficient. Several technologies are already being used to make conventional internal combustion engine vehicles that are more fuel-efficient and create less global warming pollution.

Recognizing the problems posed by our dependence on oil—and the available solutions—the Obama administration has proposed new fuel efficiency and global warming pollution standards for cars and light trucks from 2017-2025. These standards were developed with the support of 13 major automobile manufacturers and the United Auto Workers, and earned praise from the environmental community as well as many consumer groups. By requiring the average car and light truck to achieve 54.5 miles per gallon by 2025, the standards would save Americans nearly \$45 billion at the gas pump each year and cut our annual oil consumption by 23 billion gallons—

equivalent to our annual imports from Saudi Arabia and Iraq.⁷

America has the technology and the workforce ready and willing to build cleaner, more fuel-efficient cars that help break our dependence on oil. Ending this dependence will reap enormous benefits for our environment and our economy. The Obama administration should move clean cars into the fast lane by keeping the 2017-2025 clean car standards free of loopholes, and ensuring that new cars and light trucks achieve a standard of at least 54.5 mpg by 2025.

Why We Need to Move Beyond Oil

America's dependence on oil harms our environment and threatens our economy. Our dependence on this dirty energy source has devastated our national treasures like the Yellowstone and Kalamazoo rivers and the Gulf Coast, and exacerbates the threat posed by global warming by spewing nearly 2 billion metric tons of carbon pollution into our air, or nearly one-third of the global warming pollution we emit.⁸ Additionally, our dependence on oil causes American families and businesses to send hundreds of billions of dollars overseas each year.

2011 has given far too many Americans firsthand experience with one of the more devastating impacts of global warming: extreme weather. Global warming, exacerbated by pollution from cars and trucks, can lead to extreme weather events such as more frequent and stronger hurricanes, extreme drought, and heavy rains and floods. While no single weather event can be directly attributed to global warming, these weather extremes are exactly what scientists have predicted for a warming planet.⁹ From this year's flooding in the Mid-Atlantic and Northeast, to the drought-fueled wildfires in Texas, extreme weather events are becoming more common, and more devastating. Reducing global warming pollution represents our best opportunity to guard against future extreme weather events.

The majority of America's oil consumption goes to fueling passenger cars and light-duty trucks, such as SUVs, vans, and pickup trucks.¹⁰ Getting Americans from one place to another consumes nearly two-thirds of the more than 19 million barrels of oil consumed each day in the United States.¹¹

54.5 mpg—An Ambitious and Achievable Goal

To reduce our dependence on oil, we need to reduce the amount of oil consumed by transportation, including by building cars and trucks that are more fuel-efficient. Requiring automobile manufacturers to meet strong global warming pollution and fuel efficiency standards will save American consumers billions of dollars at the pump, reduce global warming pollution from cars and trucks, and significantly cut America's dependence on oil.

American ingenuity has given us the technologies to make cars and trucks that can go much farther on a gallon of gas. Automakers have developed plug-in hybrid cars that can travel 100 miles per gallon, and electric cars that can go more than 200 miles on one charge are being sold in the U.S. today.¹² In addition, new engine technologies for light trucks increase fuel efficiency without compromising hauling and towing power.

The latest generation of plug-in hybrids and electric cars have been embraced by consumers in the mainstream market. Today's electric vehicles and plug-in hybrids have the design consumers are demanding and an affordable price tag.

The early 2011 release of the Chevrolet Volt, a plug-in hybrid and Motor Trend Car of the Year, targeted six markets: California, Connecticut, New York, New Jersey, Texas and Washington, DC. However, overwhelming demand for the vehicle led Chevrolet to expand availability of the Volt to all 50 states by the end of this year.¹³ The five passenger, all-electric Nissan Leaf also received high de-

mand almost immediately. In the first three days of availability, nearly 10 percent of the first year’s planned production of 50,000 vehicles had already been reserved.¹⁴ Americans are clearly ready for cleaner and more fuel-efficient cars, and strong global warming pollution and fuel efficiency standards will accelerate those to the marketplace.

Automakers can achieve a 54.5 mpg fleet-wide average for cars and light trucks by ramping up production of hybrids and plug-in electric vehicles such as the Volt and Leaf, and by applying existing and emerging fuel-saving technologies to conventional internal combustion engine cars and light trucks.¹⁵

- Conventional internal combustion engine vehicles can be made much more efficient by applying fuel-saving technologies, including downsized turbocharged engines, enhanced aerodynamic designs, high-strength lightweight materials, six- and seven-speed transmissions and more climate-friendly air conditioning systems.¹⁶ While a growing number of automakers are already utilizing some of these techniques, applying the full range of these technologies will significantly increase fuel efficiency across the nation’s fleet.

- A strong 54.5 mpg standard will also help bring more hybrid-electric vehicles into the marketplace. This technology improves fuel efficiency and lowers global warming pollution emissions by combining an efficient gasoline engine with an electric motor.¹⁷
- Automakers are beginning to introduce more plug-in hybrid vehicles and battery electric vehicles that will require no gasoline at all. Electric-powered vehicles like the Chevrolet Volt and Nissan Leaf have been on the market for almost a year. Strong fuel efficiency and global warming pollution standards will help incentivize the production of more electric-powered vehicles.

Thanksgiving Travel: Oil Savings from Clean Cars

With the majority of the oil consumed in the United States going toward filling the gas tanks of our cars and light trucks, strong clean car standards represent the best and most immediate opportunity to lock in significant reductions in our oil use and tackle global warming. The benefits of reductions such as these are particularly apparent during high volume travel times such as the week of Thanksgiving.

<i>Top Ten States: Thanksgiving Travel Gasoline Savings from a 54.5 mpg Standard</i>		
<i>(In gallons of oil)</i>		
1	California	8,980,000
2	Texas	5,645,000
3	Florida	4,513,000
4	New York	4,000,000
5	Illinois	3,438,000
6	Ohio	3,091,000
7	Michigan	2,648,000
8	Pennsylvania	2,622,000
9	Georgia	2,325,000
10	North Carolina	2,289,000

<p><i>Top Ten States: Thanksgiving Travel Consumer Savings from a 54.5 mpg Standard</i></p> <p><i>(In \$ savings for consumers)</i></p>	1	California	\$34,932,000
	2	Texas	\$18,675,000
	3	Florida	\$15,674,000
	4	New York	\$14,867,000
	5	Illinois	\$11,736,000
	6	Ohio	\$10,546,000
	7	Pennsylvania	\$9,255,000
	8	Michigan	\$9,040,000
	9	Georgia	\$8,034,000
	10	North Carolina	\$7,908,000

This year, Americans are expected to use 160 million gallons of oil during their trips to Thanksgiving dinners across the country. Increasing the average fleet-wide fuel efficiency of our cars and trucks would allow American families to travel further on a gallon of gas and fill up less at the gas pump on their way to visiting friends and family. If the average car met a 54.5 mpg standard, Americans would use 75 million fewer gallons of gasoline during Thanksgiving travel this year, a more than 40 percent reduction from expected consumption over the Thanksgiving holiday.

While these reductions in oil use are significant for just the few days modeled here, if adopted, these standards would have a profound impact on our energy security and on global warming pollution emissions each year. A 54.5 mpg standard would also help us improve our national security by making significant cuts in the amount of oil we import, currently more than 40 percent of our total oil consumption.¹⁸ Overall, a 54.5 mpg standard would be the single biggest step the U.S. has taken to cut our oil dependence and reduce global warming pollution.

Thanksgiving Travel: Savings at the Pump from Clean Cars

With an inefficient vehicle fleet and rising gas prices, consumers are spending more of their money at the pump, especially around travel-intensive times of the year like Thanksgiving. With more than 38 million Americans traveling to Thanksgiving dinners this year in personal vehicles, Americans are expected to spend \$552 million at the gas pump this Thanksgiving holiday. Thanksgiving travel provides a snapshot of the tremendous savings Americans could reap from a 54.5 mpg fuel efficiency standard.

Driving cleaner, more fuel efficient cars to visit friends and family for Thanksgiving means less money gobbled up at the pump, and more money to spend on Thanksgiving staples like turkey, cranberry sauce, and pumpkin pie. If the average car met a 54.5 mpg standard instead of the current 26.4 mpg, Americans would save \$260 million at the gas pump on Thanksgiving travel this year. The average American family traveling this Thanksgiving would save \$14.90, enough money to put a few extra pumpkin pies on the table for Thanksgiving dinner. While families in all 50 states would expe-

rience roughly similar savings, California, Texas, Florida, New York, and Illinois would see the largest overall savings due to larger travel volume and higher gas prices.

Moving Clean Cars into the Fast Lane

The foundation for strong federal clean vehicle standards comes from the momentum created by more than a dozen states across the country. California paved the way toward cleaner cars beginning in 2002 by passing a landmark law that increased fuel efficiency and reduced global warming pollution. Thirteen other states—Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont, and Washington—and the District of Columbia soon adopted the California standard.¹⁹

Building on this state-level action, the Obama administration established strong national standards in April 2010. These standards covered light-duty vehicles in model years 2012-2016, increasing the Corporate Average Fuel Economy (CAFE) standard for cars and light trucks to approximately 35 mpg by 2016. This represented the largest increase in fuel economy in more than 30 years and the first-ever tailpipe global warming pollution standards. While these standards will generate benefits for America's environment and economy, greater improvements in fuel efficiency are necessary in order to truly move America away from oil.

Recognizing this, the Obama administration has proposed new fleet-wide fuel efficiency and global warming pollution standards equivalent to 54.5 mpg for cars and light trucks by 2025. By requiring the average car and light truck to meet a 54.5 mpg standard by 2025, the administration would, by 2030:

- Cut our annual global warming pollu-

tion emissions by 280 million metric tons—equivalent to shutting down roughly 70 coal-fired power plants for one year;²⁰ and

- Cut our annual oil consumption by nearly 23 billion gallons—equivalent to our annual imports from Saudi Arabia and Iraq;²¹ and
- Save Americans nearly \$45 billion at the gas pump annually.²²

The Obama administration's proposed standard of a fleet-wide average of 54.5 mpg by 2025 presents huge potential savings for our environment, our economy, and our national security. But as the standards move through the rulemaking process, realizing their potential benefits will depend on keeping the standards as strong as possible.

Several hurdles remain before these standards are finalized. Automakers and Congressional critics have voiced their opposition. The National Automobile Dealers Association in September launched an attack against the standard, announcing lobbying efforts to delay or weaken it as much as possible. Congressman Darrell Issa (R-CA), Chairman of the House Committee on Oversight and Government Reform, has announced he will be investigating the process by which these standards were developed.

These and other opponents may seek to weaken the standards. One way in which the standard could be weakened is by giving overly generous incentives to light trucks in the early years, creating the possibility that automakers would be unable to improve fuel efficiency in trucks in the years closer to 2025. Additionally, while pollution credits for electric vehicles can incentivize important technologies, they do not reflect that these vehicles are not truly 100 percent

emissions free. This means overly generous credits would allow automakers to avoid doing enough to clean up their gasoline-powered cars and trucks.

As the Obama administration works to finalize the 2017-2025 fuel efficiency and global warming pollution standards over the next several months, it is critical that the standards are not weakened. Only a strong 54.5 mpg standard by 2025 will deliver maximum economic benefits to American businesses and consumers and protect our environment.

Conclusion

As Americans travel to Thanksgiving dinners all across the country, it is clear that we are spending too much money at the pump and continuing to fuel our dangerous dependence on oil, threatening our environment, economy and national security. If cars and light trucks met a 54.5 miles per gallon standard, we would make significant cuts in oil use and travelers would save millions of dollars over Thanksgiving weekend—and billions more over the entire year. The Obama administration should move clean cars into the fast lane by setting standards that require new cars and light trucks to average at least 54.5 miles per gallon by 2025.

Methodology

How We Obtained Our Results

We used data on the number of automobile trips Americans will take this Thanksgiving obtained from AAA's 2011 *Thanksgiving Travel Forecast*, and gasoline prices as listed by the Energy Information Administration for the week of November 14, 2011. These figures were used to calculate how much money Americans in all 50 states would save at the pump on Thanksgiving travel and how much less oil would be consumed if the fleet-wide fuel economy average was equivalent to 54.5 mpg, compared to the current on road average of 20.95 mpg.²³

Calculating Gasoline Consumption

In order to calculate the number of cars traveling this Thanksgiving, we took the number of people traveling by automobile, from AAA's 2011 *Thanksgiving Travel Forecast*, and divided it by 2.20, the average vehicle occupancy for "social and recreational" travel according to the 2009 *National Household Travel Survey*.²⁴ To calculate gasoline consumption, we multiplied the number of cars traveling by the average miles per trip, 194, and then divided that number by the miles per gallon that the vehicle fleet would achieve: 20.95 mpg average on-road for the current case and 39.4 mpg average on-road for the efficient case.²⁵ For the average miles per trip figure, we used the "long-distance" personal vehicle average trip length from the 2001 *National Household Travel Survey*.²⁶ To calculate savings, we subtracted the base case gasoline consumption figure from the efficient case figure.

Calculating Consumer Spending

We multiplied gasoline consumption figures by gasoline prices as listed by the Energy Information Administration for the week of November 14, 2011 in order to calculate consumer spending on gasoline. Once again, we subtracted the base case spending from the efficient case spending to calculate savings.

State by State Results

In order to calculate the number of Thanksgiving trips that originated from each state, we obtained the population of each state from the U.S. Census Bureau's 2010 *Population Finder and Demographic Profile for the United States, Regions, States, and Puerto Rico*. We calculated the percentage of population that a particular state represents within its region as designated by AAA. We then multiplied that percentage by the total number of Thanksgiving trips within the region as predicted by AAA, which yielded the number of trips that originated from each state. We then took those state numbers and used the methodology outlined above to calculate each state's gasoline consumption and consumer spending.

Individual Family Savings

We calculated the savings for individual families within each state by dividing the total savings from each state by the number of cars traveling. For the purposes of this analysis, we define a family as one vehicle traveling.

Global Warming Pollution Savings

We estimated reduced global warming pollution by converting gasoline savings to

an equivalent amount of carbon dioxide. A gallon of gasoline contains 19.4 pounds of carbon dioxide, per the U.S. Environmental Protection Agency, *Emissions Facts: Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel*, February 2005. We also assumed that the fuel economy

standard modeled here would be paired with a strong global warming tailpipe emission standard that would cause automakers to reduce emissions from air conditioners by 20 grams per mile.

Appendices

Table 1: Global Warming Pollution Emissions Avoided from this Year's Thanksgiving Travel by a 54.5 mpg Standard

Rank	State	Global Warming Pollution Emissions Avoided by a 54.5 mpg Standard (metric tons of CO ₂)
1	California	87,232
2	Texas	54,836
3	Florida	43,840
4	New York	38,856
5	Illinois	33,396
6	Ohio	30,026
7	Michigan	25,723
8	Pennsylvania	25,470
9	Georgia	22,586
10	North Carolina	22,235
11	Missouri	18,903
12	Virginia	18,660
13	New Jersey	17,631
14	Indiana	16,873
15	Minnesota	16,737
16	Washington	15,746
17	Tennessee	15,644
18	Arizona	15,640
19	Wisconsin	14,804
20	Massachusetts	13,541
21	Maryland	13,464
22	Colorado	12,308
23	Alabama	11,458
24	South Carolina	10,783

25	Kentucky	10,399
26	Louisiana	9,889
27	Iowa	9,617
28	Kansas	9,005
29	Oregon	8,966
30	Oklahoma	8,179
31	Connecticut	7,392
32	Mississippi	7,114
33	Utah	6,761
34	Nevada	6,606
35	Arkansas	6,362
36	Nebraska	5,761
37	New Mexico	5,041
38	West Virginia	4,323
39	Idaho	3,837
40	Hawaii	3,186
41	Maine	2,749
42	New Hampshire	2,720
43	South Dakota	2,574
44	Montana	2,419
45	Rhode Island	2,176
46	North Dakota	2,127
47	Delaware	2,098
48	Alaska	1,661
49	District of Columbia	1,399
50	Wyoming	1,379
51	Vermont	1,292
	Total	714,915

Table 2: Oil Savings from this Year's Thanksgiving Travel from a 54.5 mpg Standard

<i>Rank</i>	<i>State</i>	<i>Gas Savings from a 54.5 mpg Standard (gallons of oil)</i>
1	California	8,980,000
2	Texas	5,645,000
3	Florida	4,513,000
4	New York	4,000,000
5	Illinois	3,438,000
6	Ohio	3,091,000
7	Michigan	2,648,000
8	Pennsylvania	2,622,000
9	Georgia	2,325,000
10	North Carolina	2,289,000
11	Missouri	1,946,000
12	Virginia	1,921,000
13	New Jersey	1,815,000
14	Indiana	1,737,000
15	Minnesota	1,723,000
16	Washington	1,621,000
17	Tennessee	1,612,000
18	Arizona	1,610,000
19	Wisconsin	1,524,000
20	Massachusetts	1,394,000
21	Maryland	1,386,000
22	Colorado	1,267,000
23	Alabama	1,179,000
24	South Carolina	1,110,000
25	Kentucky	1,070,000
26	Louisiana	1,018,000
27	Iowa	990,000
28	Kansas	927,000
29	Oregon	923,000
30	Oklahoma	842,000
31	Connecticut	761,000

32	Mississippi	732,000
33	Utah	696,000
34	Nevada	680,000
35	Arkansas	655,000
36	Nebraska	593,000
37	New Mexico	519,000
38	West Virginia	445,000
39	Idaho	395,000
40	Hawaii	328,000
41	Maine	283,000
42	New Hampshire	280,000
43	South Dakota	265,000
44	Montana	249,000
45	Rhode Island	224,000
46	North Dakota	219,000
47	Delaware	216,000
48	Alaska	171,000
49	District of Columbia	144,000
50	Wyoming	142,000
51	Vermont	133,000
	Total	75,333,000

Table 3: Consumer Savings at the Gas Pump from this Year's Thanksgiving Travel from a 54.5 mpg Standard

<i>Rank</i>	<i>State</i>	<i>Consumer Savings from a 54.5 mpg Standard</i>
1	California	\$34,932,000
2	Texas	\$18,675,000
3	Florida	\$15,674,000
4	New York	\$14,867,000
5	Illinois	\$11,736,000
6	Ohio	\$10,546,000
7	Pennsylvania	\$9,255,000
8	Michigan	\$9,040,000
9	Georgia	\$8,034,000
10	North Carolina	\$7,908,000
11	Missouri	\$6,643,000
12	Virginia	\$6,636,000
13	New Jersey	\$6,406,000
14	Washington	\$6,187,000
15	Indiana	\$5,931,000
16	Arizona	\$5,908,000
17	Minnesota	\$5,852,000
18	Tennessee	\$5,505,000
19	Wisconsin	\$5,202,000
20	Maryland	\$4,892,000
21	Massachusetts	\$4,859,000
22	Colorado	\$4,407,000
23	Alabama	\$3,882,000
24	South Carolina	\$3,836,000
25	Kentucky	\$3,653,000
26	Oregon	\$3,388,000
27	Iowa	\$3,379,000
28	Louisiana	\$3,353,000
29	Kansas	\$3,165,000
30	Oklahoma	\$2,875,000
31	Connecticut	\$2,717,000
32	Nevada	\$2,496,000

33	Utah	\$2,429,000
34	Mississippi	\$2,410,000
35	Arkansas	\$2,157,000
36	Nebraska	\$2,026,000
37	New Mexico	\$1,709,000
38	West Virginia	\$1,537,000
39	Idaho	\$1,378,000
40	Hawaii	\$1,203,000
41	Maine	\$1,010,000
42	New Hampshire	\$1,001,000
43	South Dakota	\$903,000
44	Montana	\$870,000
45	Rhode Island	\$800,000
46	Delaware	\$761,000
47	North Dakota	\$746,000
48	Alaska	\$628,000
49	District of Columbia	\$510,000
50	Wyoming	\$495,000
51	Vermont	\$476,000
	Total	\$258,845,000

Table 4: Individual Household Savings from this Year's Thanksgiving Travel from a 54.5 mpg Standard

<i>Rank</i>	<i>State</i>	<i>Individual Household Savings from a 54.5 mpg Standard</i>
1	California	\$16.87
2	Washington	\$16.55
3	New York	\$16.12
4	Hawaii	\$15.91
5	Oregon	\$15.91
6	Nevada	\$15.91
7	Arizona	\$15.91
8	Alaska	\$15.91
9	New Hampshire	\$15.48
10	Maine	\$15.48
11	Vermont	\$15.48
12	Rhode Island	\$15.48
13	Connecticut	\$15.48
14	Delaware	\$15.31
15	Pennsylvania	\$15.31
16	District of Columbia	\$15.31
17	Maryland	\$15.31
18	New Jersey	\$15.31
19	Wyoming	\$15.13
20	Montana	\$15.13
21	Idaho	\$15.13
22	Utah	\$15.13
23	Massachusetts	\$15.12
24	Colorado	\$15.09
25	Florida	\$15.06
26	Georgia	\$14.98
27	South Carolina	\$14.98
28	West Virginia	\$14.98
29	Virginia	\$14.98
30	North Carolina	\$14.98

31	Wisconsin	\$14.80
32	Kansas	\$14.80
33	Michigan	\$14.80
34	Illinois	\$14.80
35	Indiana	\$14.80
36	Oklahoma	\$14.80
37	Iowa	\$14.80
38	Missouri	\$14.80
39	North Dakota	\$14.80
40	Nebraska	\$14.80
41	Tennessee	\$14.80
42	South Dakota	\$14.80
43	Kentucky	\$14.80
44	Ohio	\$14.80
45	Minnesota	\$14.73
46	Texas	\$14.34
47	Arkansas	\$14.29
48	Louisiana	\$14.28
49	New Mexico	\$14.28
50	Alabama	\$14.28
51	Mississippi	\$14.28
	Total	\$14.90

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