

# Gobbling Less Gas for Thanksgiving:

How Clean Cars Can Save Americans Money and Cut Oil Use



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### **Executive Summary**

America's dependence on oil puts our environment, economy, and national security at risk. Whether it is the scars left by the oil spill disaster in the Gulf, 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 that pollute our air each year, these problems demand that we break our dependence on oil.

The transportation sector accounts for nearly two-thirds of the more than 19 million barrels of oil consumed each day in the United States.<sup>2</sup> The largest percentage is consumed by passenger cars and light duty trucks, such as SUVs, vans, and pickup trucks.<sup>3</sup> Requiring automobile manufacturers to meet strong global warming pollution and fuel efficiency standards represents the greatest opportunity 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 Thanksgiving holiday travel season is one of the busiest travel weeks of the year, when Americans feel the economic pain of our dependence on oil. Americans will drive to Thanksgiving dinners all across the country in cars that gobble up too much gas at the pump, threatening our environment and unnecessarily stretching our wallets. With more than 39 million people taking to the road on trips of at least 50 miles to visit family and friends, Americans are expected to spend \$418 million at the gas pump this Thanksgiving holiday. But our analysis found that, if the average car got 60 miles per gallon (mpg) instead of the current 26.4 mpg, Americans would save \$234 million at the gas pump on Thanksgiving travel this year and cut gasoline consumption by 80 million gallons. The average American family traveling this Thanksgiving would save \$12.10, enough money to buy three extra pumpkin pies for Thanksgiving dinner. 4 While families in all 50 states would experience roughly the same savings, California, Texas, New York, Florida, and Illinois would see the largest overall consumer savings and the largest reductions in gasoline consumption.

American ingenuity has provided the technology to make our current vehicle fleet much cleaner and more fuel efficient.

Automakers have developed plug-in hybrid cars that can travel 100 miles on a gallon of gas and U.S. auto dealers are selling electric cars that can go more than 200 miles on one charge.<sup>5</sup>

Several techniques are already being used to make conventional internal combustion engine vehicles more efficient.

Recognizing this, the Obama administration is currently developing new fleet-wide fuel efficiency and global warming pollution standards for cars and light trucks through 2025. In October, the administration released an analysis that American automakers can costeffectively make 60 miles per gallon cars the norm and not the exception to the rule.<sup>6</sup> By requiring the average car and light truck to achieve at least 60 miles per gallon by 2025, the administration would save Americans \$101 billion at the gas pump each year and cut our oil consumption by nearly 3 million barrels of oil per day in 2030 - nearly three times the amount of oil we currently import from Saudi Arabia.7

Strong clean car standards also enjoy overwhelming public support. More than 74 percent of likely voters favor increasing the average fuel efficiency standard for cars and light trucks to 60 miles per gallon by 2025, making it clear that Americans are eager to reap the benefits of cleaner, more fuel efficient cars.<sup>8</sup>

It is clear that America has the workforce and the technology to build cleaner, more fuel efficient cars that help break our dangerous dependence on oil. Ending this dependence that threatens our economy, our environment, and our national security will require our leaders to put American ingenuity to work to move us beyond oil. The Obama administration should move clean cars into the fast lane by setting standards that require new cars and light trucks to average 60 miles per gallon by 2025.

## The United States Needs to Move Beyond Oil

America's dangerous dependence on oil harms our environment and threatens our economy. Our dependence on this dirty energy source devastates our shores like the Gulf Coast, forces American families and businesses to send hundreds of billions of dollars overseas each year, 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.<sup>9</sup>

Getting Americans from point A to point B consumes nearly two-thirds of the more than 19 million barrels of oil consumed each day in the United States. <sup>10</sup> A majority of the oil consumed in this country fuels passenger cars and light-duty trucks, such as SUVs, vans, and pickup trucks, <sup>11</sup> which means reducing our dependence on oil requires building cars and trucks that are much cleaner and more fuel efficient.

By requiring automobile manufacturers to meet strong global warming pollution and fuel efficiency standards, America can save consumers billions of dollars at the pump, reduce global warming pollution from cars and trucks, and significantly cut America's dangerous dependence on oil.

## 60mpg - We Have the Technology to Get There

American ingenuity has given us the clean car technologies today to make cars and trucks that

go much farther on a gallon of gas.

Automakers have developed plug-in hybrid cars that can travel 100 miles on a gallon of gas, and U.S. auto dealers are selling electric cars that can go more than 200 miles on one charge are being sold in the U.S. today. <sup>12</sup> Automakers can achieve a 60 mpg fleet-wide average for cars and light trucks by applying existing and emerging fuel saving technologies to conventional internal combustion engine vehicles while ramping up production of hybrids and plug-in electric vehicles. <sup>13</sup>

- Conventional internal combustion engine vehicles can be made much more efficient by applying fuel-saving techniques such as downsized turbocharged engines, enhanced aerodynamic designs, high-strength lightweight materials, six- and seven-speed transmissions and more climate-friendly air conditioning systems.<sup>14</sup> 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.
- A 60 mpg fuel efficiency standard will also help bring more hybrid-electric vehicles into the marketplace. These vehicles can significantly improve fuel efficiency and lower global warming pollution emissions by combining an efficient gasoline engine with an electric motor.<sup>15</sup>
- Automakers are beginning to introduce more plug-in hybrids and battery electric vehicles that will require no gasoline at all. Electric-powered vehicles like the Chevrolet Volt and Nissan Leaf are slated to pull into dealerships shortly after Thanksgiving. Strong fuel efficiency and global warming pollution standards will help incentivize the production of more electric-powered vehicles.

### Thanksgiving Travel: Savings at the Pump from Clean Cars

America's inefficient vehicle fleet combined with rising gasoline prices are costing consumers more money at the pump, especially around travel-intensive times of the year like Thanksgiving. With more than 39 million Americans traveling to Thanksgiving dinners this year in personal vehicles, Americans are expected to spend \$418 million at the gas pump this Thanksgiving holiday. Given this sizeable economic burden placed on American families, Thanksgiving provides a snapshot of the tremendous savings Americans *could* be reaping from a 60 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 for turkey, cranberry sauce, and pumpkin pie. If the average car got 60 mpg instead of the current 26.4 mpg, Americans would save \$234 million at the gas pump on Thanksgiving travel this year. The average American family traveling this Thanksgiving would save \$12.10, enough money to buy 3 extra pumpkin pies for Thanksgiving dinner. While families in all 50 states would experience roughly the same savings, California, Texas, New York, Florida, and Illinois would see the largest overall savings due to large travel volume and high gas prices.

Top Ten States: Thanksgiving Travel Consumer Savings from a 60 mpg Standard

Rank:	State:	Savings at the Pump (\$)
1	California	\$30,441,000
2	Texas	\$16,413,000
3	Florida	\$13,932,000
4	New York	\$13,567,000
5	Illinois	\$10,737,000
6	Ohio	\$9,665,000
7	Pennsylvania	\$8,361,000
8	Michigan	\$8,291,000
9	Georgia	\$7,311,000
10	North Carolina	\$6,978,000

## Thanksgiving Travel: Oil Savings from Clean Cars

Given that the majority of the oil consumed in the United States goes 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. These reductions are particularly apparent during high volume travel times such as the week of Thanksgiving. This year, Americans are expected to use 142 million gallons of oil to fuel their trips to Thanksgiving dinner tables around the country. Increasing

the average fleet-wide fuel economy of our cars and trucks would allow American families to fill up less at the gas pump on their way to visiting friends and family. If the average car got 60 mpg instead of the current 26.4 mpg, Americans would use 80 million less gallons of gasoline during Thanksgiving travel this year, more than 50 percent less than their expected consumption over the Thanksgiving holiday.

While these reductions in oil use are significant for such a short time span, their effect over time would have a profound impact on our energy security. A 60 mpg standard would also help improve our national security by making significant cuts in the amount of oil we import, currently about 60 percent of our total oil consumption.<sup>16</sup>

Top 10 States: Thanksgiving Travel Gasoline Savings from a 60 mpg Standard

Rank:	State:	Gas Savings (gal)	
1	California		9,454,000
2	Texas		5,925,000
3	Florida		4,771,000
4	New York		4,321,000
5	Illinois		3,690,000
6	Ohio		3,299,000
7	Michigan		2,849,000
8	Pennsylvania		2,787,000
9	Georgia		2,530,000
10	North Carolina		2,414,000

## Moving Clean Cars into the Fast Lane

The foundation for strong federal clean vehicle standards comes from momentum built up in several states across the country. California paved the road toward cleaner cars beginning in 2002 by passing a landmark clean cars law targeted at increasing fuel efficiency and reducing tailpipe pollution. The California standard was soon adopted by 13 other states (Arizona, Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Mexico, New York, Oregon, Pennsylvania, Rhode Island, Vermont and Washington).<sup>17</sup> These actions

represented strong steps in the right direction, but in order to truly cut America's oil dependence, a strong federal standard is needed.

Building on these state rulings, the Obama administration took such action in April, 2010, by setting new light-duty clean car standards for model years 2012-2016, increasing the Corporate Average Fuel Economy 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 federal tailpipe global warming pollution standards. These standards will reap significant benefits for America's economy and environment, yet larger increases in fuel

economy are necessary in order to truly move America away from oil.

Recognizing this, the Obama administration is currently developing new fleet-wide fuel efficiency and global warming pollution standards for cars and light trucks through 2025. In October, the administration released scientific analysis that American automakers can cost-effectively make 60 mpg cars the norm and not the exception to the rule. By requiring the average car and light truck to achieve at least 60 mpg by 2025, the administration would:

- Save Americans \$101 billion at the gas pump,<sup>18</sup> and
- Cut our oil consumption by nearly 3 million barrels of oil per day in 2030 – nearly three times the amount of oil we currently import from Saudi Arabia.

Strong clean cars standards also enjoy overwhelming public support. More than 74 percent of likely voters favor increasing the average fuel efficiency standard for cars and light trucks to 60 mpg by 2025, making it clear that Americans are eager to reap the benefits of cleaner, more fuel efficient cars.<sup>20</sup>

As the Obama administration finalizes the 2017-2025 fuel efficiency and global warming pollution standards over the next 12 to 18 months, it is critical that they deliver important economic benefits to American businesses and consumers and protect our environment by requiring new cars and light trucks to go at least 60 mpg and emit no more than 143 grams of global warming pollution per mile by 2025.

### 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 economy, environment, and national security. Requiring the average car and light truck to go 60 miles per gallon would save Thanksgiving travelers millions of dollars, and billions more over the course of 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 60 miles per gallon by 2025.

### Methodology

#### **How We Obtained Our Results**

In this report, we use data on the number of automobile trips Americans will take this Thanksgiving obtained from AAA's 2010 Thanksgiving Travel Forecast Report, and gasoline prices as listed by the Energy Information Agency for the week of November 15<sup>th</sup>, 2010. 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 60 mpg compared to the current 26.4 mpg.

### **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 2010 Thanksgiving Travel Forecast, and divided it by 2.05, the average vehicle occupancy for "social and recreational" travel according to the 2001 National Household Travel Survey. 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; 26.4 for the current case and 60 for the efficient case. For the average miles per trip figure, we used the "longdistance" personal vehicle average trip length from the 2001 National Household Travel Survey. 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 15<sup>th</sup>, 2010, 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 Annual Estimates of the Resident Population for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2009. We calculated the percentage of population that that 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.

Table 1: Consumer Savings at the Gas Pump from this Year's Thanksgiving Travel from a 60 mpg Standard (compared to the current standard of 26.4 mpg).

Rank:	State:	Savings at the Pump (\$)
1	California	\$30,441,000
2	Texas	\$16,413,000
3	Florida	\$13,932,000
4	New York	\$13,567,000
5	Illinois	\$10,737,000
6	Ohio	\$9,665,000
7	Pennsylvania	\$8,361,000
8	Michigan	\$8,291,000
9	Georgia	\$7,311,000
10	North Carolina	\$6,978,000
11	Missouri	\$6,071,000
12	Virginia	\$5,863,000
13	New Jersey	\$5,776,000
14	Washington	\$5,386,000
15	Indiana	\$5,342,000
16	Minnesota	\$5,230,000
17	Arizona	\$5,221,000
18	Tennessee	\$4,871,000
19	Wisconsin	\$4,703,000
20	Massachusetts	\$4,468,000
21	Maryland	\$4,401,000
22	Colorado	\$3,599,000
23	Alabama	\$3,480,000
24	South Carolina	\$3,393,000
25	Kentucky	\$3,338,000
26	lowa	\$3,050,000
27	Louisiana	\$2,986,000
28	Oregon	\$2,984,000
29	Kansas	\$2,858,000
30	Oklahoma	\$2,565,000
31	Connecticut	\$2,432,000
32	Mississippi	\$2,182,000
33	Nevada	\$2,092,000
34	Utah	\$2,052,000
35	Arkansas	\$1,921,000
36	Nebraska	\$1,822,000
37	New Mexico	\$1,450,000
38	West Virginia	\$1,354,000
39	Idaho	\$1,139,000

40	Hawaii	\$1,010,000
41	New Hampshire	\$916,000
42	Maine	\$911,000
43	South Dakota	\$824,000
44	Rhode Island	\$728,000
45	Montana	\$719,000
46	Delaware	\$683,000
47	North Dakota	\$656,000
48	Alaska	\$545,000
49	District of Columbia	\$463,000
50	Vermont	\$430,000
51	Wyoming	\$401,000
Total:	United States	\$234,417,000

Table 2: Oil Savings from this Year's Thanksgiving Travel from a 60 mpg Standard (compared to the current standard of 26.4 mpg).

Rank:	State:	Gas Savings (gal)	
1	California		9,454,000
2	Texas		5,925,000
3	Florida		4,771,000
4	New York		4,321,000
5	Illinois		3,690,000
6	Ohio		3,299,000
7	Michigan		2,849,000
8	Pennsylvania		2,787,000
9	Georgia		2,530,000
10	North Carolina		2,414,000
11	Missouri		2,086,000
12	Virginia		2,029,000
13	New Jersey		1,925,000
14	Indiana		1,836,000
15	Minnesota		1,835,000
16	Arizona		1,712,000
17	Washington		1,704,000
18	Tennessee		1,674,000
19	Wisconsin		1,616,000
20	Massachusetts		1,504,000
21	Maryland		1,467,000
22	Colorado		1,304,000
23	Alabama		1,252,000
24	South Carolina		1,174,000

25	Kentucky	1,147,000
26	Louisiana	1,074,000
27	lowa	1,048,000
28	Kansas	982,000
29	Oregon	978,000
30	Oklahoma	882,000
31	Connecticut	803,000
32	Mississippi	785,000
33	Utah	723,000
34	Arkansas	691,000
35	Nevada	686,000
36	Nebraska	626,000
37	New Mexico	522,000
38	West Virginia	468,000
39	Idaho	401,000
40	Hawaii	331,000
41	New Hampshire	302,000
42	Maine	301,000
43	South Dakota	283,000
44	Montana	253,000
45	Rhode Island	240,000
46	Delaware	228,000
47	North Dakota	225,000
48	Alaska	179,000
49	District of Columbia	154,000
50	Vermont	142,000
51	Wyoming	141,000
Total:	United States	79,734,000

### **Notes**

<sup>&</sup>lt;sup>1</sup> Center for America Progress, Oil Dependence Is a Dangerous Habit: Imports Threaten Our Security, Our Environment, and Our Economy, January 2010.

<sup>&</sup>lt;sup>2</sup> U.S. Department of Energy, Energy Information Administration, *Petroleum Navigator: Product Supplied*, August 2010, downloaded from http://tonto.eia.doe.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mttupus2&f=m.

<sup>&</sup>lt;sup>3</sup> U.S. Department of Energy, Energy Information Administration, *State Energy* Data 2008, downloaded from http://www.eia.gov/emeu/states/ seds.html.

<sup>&</sup>lt;sup>4</sup> American Farm Bureau, American Farm Bureau's 25<sup>th</sup> Annual Thanksgiving Price Survey, downloaded from http://fb.org/index.php?fuseaction=newsroom.newsfocus&year=2010&file=nr1112.html.

<sup>&</sup>lt;sup>5</sup> Environment America Research and Policy Center and Frontier Group, *Plug-In Cars: Powering America Toward a Cleaner Future*, January 2010.

<sup>&</sup>lt;sup>6</sup> Environmental Protection Agency and Department of Transportation, *2017 and Later Model Year Light Duty Vehicle GHG Emissions and CAFE Standards; Notice of Intent*. Federal Register, Vol. 75, No. 197, 13 October 2010.

<sup>&</sup>lt;sup>7</sup> Union of Concerned Scientists and Natural Resources Defense Council, *Saving Money at the Gas Pump: State-by-State Consumer Savings from Stronger Fuel Efficiency and Carbon Pollution Standards,* September 2010.

<sup>&</sup>lt;sup>8</sup> The Mellman Group, *Poll: Voters Overwhelmingly Support Stricter Fuel Efficiency Standards*, 15 September 2010.

<sup>&</sup>lt;sup>9</sup> World Resources Institute, *Reducing Greenhouse Gas Emissions in the United States: Using Existing Federal Authorities and State Action*, July 2010.

<sup>&</sup>lt;sup>10</sup> See note 1.

<sup>&</sup>lt;sup>11</sup> See note 2.

<sup>&</sup>lt;sup>12</sup> Plug-In Cars: Powering America Toward a Cleaner Future, Environment America Research and Policy Center and Frontier Group, January 2010.

<sup>&</sup>lt;sup>13</sup> Union of Concerned Scientists and Natural Resources Defense Council, *The Road Ahead: The Benefits of Strong Fuel Efficiency and Pollution Standards for New Cars and Trucks*, September 2010.

<sup>14</sup> Ibid.

<sup>&</sup>lt;sup>15</sup> Ibid.

<sup>&</sup>lt;sup>16</sup> U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review, Petroleum Trade: Overview, Table 3.3a*, October 2010, downloaded from http://www.eia.doe.gov/emeu/mer/pdf/pages/sec3\_7.pdf.

<sup>&</sup>lt;sup>17</sup> Environment America Research and Policy Center and Frontier Group, *State Leadership and the National Clean Cars Program: Reducing Oil Dependence and Cutting Global Warming Pollution*, March 2010.

<sup>&</sup>lt;sup>18</sup> See note 7.

<sup>&</sup>lt;sup>19</sup> Ibid.

<sup>&</sup>lt;sup>20</sup> See note 8.