

FACT SHEET

# THE REAL ROAD TO ENERGY INDEPENDENCE: CLEAN CAR AND FUEL ECONOMY STANDARDS

Over the past five decades, adopting clean car and fuel economy standards have been one of the most significant actions the United States has taken to reduce its reliance on oil and save drivers money at the pump.

Spiking gasoline prices triggered by Russia's war in Ukraine are hitting consumers hard and putting renewed attention on the need for American energy independence.

While consumers are feeling the pinch at the pump, oil companies are proffering a false solution and calling for unfettered drilling in our natural spaces.<sup>1</sup> But as this recent price hike illustrates, we cannot drill our way to lower gas prices. The price of oil is set by a global market, vulnerable to wild fluctuations and world events beyond our control. The real solution is to end our reliance on oil.

Thankfully, we are on a path to true energy independence because of a prescient decision Congress made in 1975 when it first enacted legislation to set fuel economy standards.<sup>2</sup> As a result of federal clean car and fuel economy standards, vehicles in the United States are getting more efficient and less polluting. Efficient vehicles mean fewer trips to the gas station and more money in drivers' pockets. Fuel economy improvements have saved **more than two trillion gallons of gasoline since 1975, enough to run every car and light truck in the U.S. for more than 15 years.**<sup>3</sup>

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Federal data compiled by NRDC show that increased efficiency brought about by vehicle standards results in annual fuel savings of \$344 for a vehicle bought in 2021 and driven the average distance of 11,200 miles,<sup>4</sup> compared with one bought in 2006, if gas is priced at \$3 per gallon (see Figure 1).<sup>5</sup> At \$4 a gallon, the savings increase to \$458. Whatever the price at the pump, there's a 21 percent savings on gasoline that continues year after year for the lifetime of the vehicle, so buyers of used vehicles benefit as well. With most households owning more than one vehicle,<sup>6</sup> **the average household is saving about \$630 to \$840 each year from these gains.**<sup>7</sup>

Progress since 2006, when fuel economy started improving again after nearly 25 years of stagnation, is even more dramatic by vehicle type. Fuel economy increased by:

- 35 percent for sedans;
- 41 percent for sport utility vehicles (SUVs); and
- 23 percent for pickup trucks.

To put that into context, a new SUV today gets better fuel economy than a sedan did back in 2006.<sup>8</sup>

Clean car and fuel economy standards are also a progressive policy. A study evaluating the total impacts of fuel economy improvements on fuel and vehicle expenditures from 1980 to 2014 showed that with these standards, everyone wins. The highest-income households (which pay a slight premium for fuel saving technology) realized savings that were 2.9 times greater than costs, while the lowest-income households (which only pay a fraction of that premium, but which realize the full benefit) realized savings that were 4.3 times greater than costs.<sup>9</sup>

These savings are all the more notable because they are taking place even as vehicles sold in the United States are getting bigger and more powerful. While trucks and SUVs now make up more than half of all vehicles produced for sale in the country, their efficiency is improving and overall emissions are falling.<sup>10</sup>

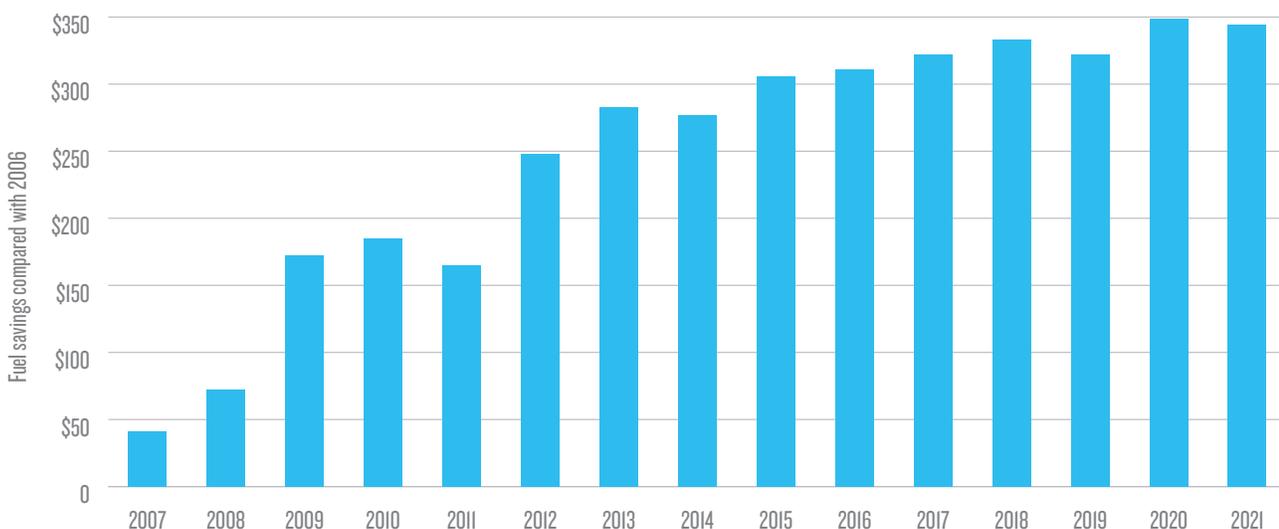
The oil industry fought these commonsense standards,<sup>11</sup> and it is offering false solutions to address the spike in gasoline prices now. But one fact remains clear: The enactment of clean car and fuel economy standards is one of the most significant actions the United States has taken to reduce its reliance on oil and save drivers money at the pump.

## ACCELERATING PROGRESS

The passenger car and light truck standards finalized by the U.S. Environmental Protection Agency (EPA) at the end of 2021 are projected to deliver even more savings—reducing U.S. gasoline consumption by more than 440 million barrels through 2050 and saving consumers \$210 billion to \$420 billion in fuel costs through 2050.<sup>12</sup>

And the benefits of the EPA standards go far beyond savings at the pump. They also lower tailpipe emissions, a significant source of health-harming air pollutants linked to asthma, heart disease, and premature death.<sup>13</sup> Additionally, these standards yield significant reductions in the carbon pollution fueling the climate crisis. Since 1975, the fuel efficiency rules have cut carbon dioxide emissions by a total of 17 billion tons, equivalent to about three years of U.S. emissions from all sources.<sup>14</sup> At the current social cost of carbon of \$51 per ton, that's a \$867 billion benefit to the economy.<sup>15</sup>

**FIGURE 1: ANNUAL AVERAGE VEHICLE FUEL SAVINGS FROM CLEANER CARS**



This graphic depicts annual fuel savings for a vehicle bought in the identified year compared with one bought in 2006, assuming gas is \$3 a gallon during that year and the vehicle is driven the average distance of 11,200 miles. "Average vehicle" represents a vehicle from that specific model year achieving the weighted average fuel economy.<sup>16</sup>

## THE FUTURE: IT'S ELECTRIC

Until today, most of the gains in fuel efficiency and reductions in tailpipe pollution have come from improving the performance of gasoline-powered vehicles through technologies such as direct injection, cylinder deactivation, engines that turn off at stops, and transmissions with more speeds. There's still a lot of efficiency gains to be had from such improvements.

Now, however, we are at a moment of transition for vehicles, one that the next set of clean car standards from the EPA can lock in and help accelerate. **Electric vehicles are the most efficient vehicles on the road and provide dramatic savings for drivers, insulating them from fluctuations at the pump.**

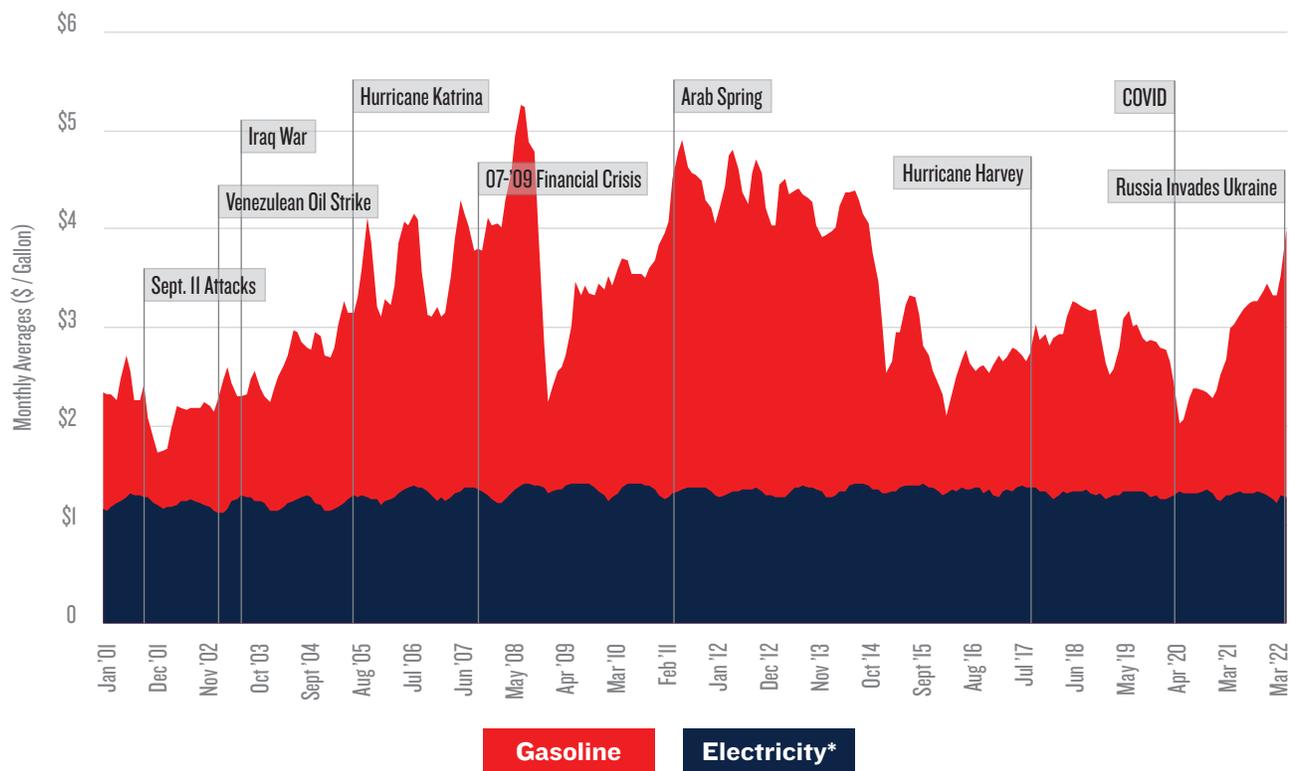
Charging an electric vehicle at home is roughly the equivalent of fueling up on a dollar-a-gallon gasoline. What's more, the average price of residential electricity, adjusted for inflation, has stayed close to the dollar-a-gallon equivalent mark for at least the last 20 years, while gasoline prices have gone up and down erratically, as shown in Figure 2.<sup>17</sup>

If fuel costs are taken into account, it's already less expensive to own an electric vehicle than a similar gasoline model.<sup>18</sup> For example, the Ford F-150 Lightning pickup truck will be 17 percent cheaper to own than the gas-powered F-150, even accounting for the higher sticker price. The same is true of a Volkswagen ID.4 versus a similar SUV, and of an electric sedan versus a Toyota Corolla.<sup>19</sup>

Consumer savings are reason enough to abandon the gas pump, but electric vehicles also deliver real energy independence. In the 1970s, nearly 20 percent of our nation's electricity was generated using petroleum, but utilities and utility regulators made a concerted effort to move away from oil following the 1973 oil crisis.<sup>20</sup> As a result, the electricity sector is insulated from swings in global oil markets. As we invest in cleaner renewable resources like wind and solar, our grid becomes less vulnerable to fossil fuel price swings. After all, no dictator can stop the sun from shining or the wind from blowing.

As our grid continues to get cleaner and greener, an electric vehicle bought today will continue to get cleaner too.<sup>21</sup>

**FIGURE 2: GASOLINE AND ELECTRICITY PRICES: JANUARY 2001 – MARCH 2022**



\*Electricity price is shown in "dollars per eGallon," which "represents the cost of driving an electric vehicle (EV) the same distance a gasoline-powered vehicle could travel on one (1) gallon of gasoline."<sup>22</sup>

## CLEAN TRANSPORTATION IS ABOUT MORE THAN CARS

Progress on cutting consumers' costs, reducing emissions, and improving quality of life will need to be about much more than just vehicles. Investing in transit, walkable communities, and safe biking infrastructure is key to healthier people and a healthier planet.

One important piece to doing this right is how we implement President Biden's bipartisan infrastructure legislation. The Infrastructure Investment and Jobs Act authorizes record investments in transit, but it also includes record investments in highway funding. What's called "highway" funding can, in fact, be used for all kinds of beneficial transportation investments. The U.S. Department of Transportation should work with state and local leaders to target these funds toward a mix of electric vehicle charging stations, transit, bike lanes, and sidewalks—as well as repairing highways and bridges. We need to build a transportation *system* for the future, instead of just blindly expanding an outdated highway system. If these investments are done right, this law could reduce oil consumption by more than 600 million barrels through 2040.<sup>23</sup>

## CONCLUSION

Confronting the oil crisis of the 1970s, Congress moved to put the United States on a path to energy independence. Fuel efficiency standards were the most effective policy adopted then, delivering consumer savings while slashing our nation's need for imported oil.

Today we face a new threat and yet another spike in oil prices. Policymakers once again can deliver for America by adopting strong fuel efficiency and tailpipe emission standards, accelerating the transition to electric vehicles, and investing in a cleaner, more just transportation system that serves the needs of all.

### ENDNOTES

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