

Energy plan seeks better gas mileage

Would begin with 2010-model cars

By James R. Healey
USA TODAY

The energy portion of President Bush's State of the Union speech Tuesday included some eye-popping numbers that would amount to a boon for the ethanol industry and could begin boosting the fuel economy of cars and trucks as soon as 2009.

The fuel economy increase isn't set at a specific number. It would result from a plan to cut U.S. gasoline use 20% in the next 10 years through better mileage and the increased use of gasoline substitutes such as ethanol.

The White House says that to meet the goal, mileage would have to improve 4% a year, beginning with 2010-model cars, most of which are on sale in 2009, and 2012-model pickups, vans and SUVs.

The Union of Concerned Scientists says that translates to an average of 34 miles per gallon in 2017. "This could be the breakthrough we have been waiting for on fuel economy," says David Friedman, UCS research director.

UCS says that if Congress and the president can agree and thwart loopholes, the USA would use 550,000 fewer barrels of oil a day in 2017. That would cut the amount of carbon dioxide, a greenhouse gas blamed for global warming, as much as taking 14 million vehicles off the road, UCS says.



Combined with Bush's call for dramatically expanding the use of gasoline alternatives, the program "is a welcome, visionary proposal," says John DeCicco, auto expert at Environmental Defense -- a group often opposed to Bush's policies. DeCicco says a better way to protect the environment would be to limit the use of fuels with high carbon content, but the Bush plan would hit the same goal.

Joan Claybrook, president of Public Citizen, criticizes the Bush plan, saying it would set lower mileage targets for larger vehicles, encouraging automakers to build more of them.

The most stunning number in Bush's plan is 35 billion gallons -- the amount of renewable and alternative fuels that the petroleum industry would have to blend with gasoline by 2017. That would displace one-fourth of the gasoline Americans use.

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It's a huge jump from the current mandate of 7.5 billion gallons in 2012. Most renewable fuel is ethanol, grain alcohol usually made from corn.

"It's great to have the president of the United States out there saying we need this," says Bob Dinneen, president of the Renewable Fuels Association. RFA represents operators of 111 ethanol plants and another 78 under construction. The industry currently can produce 5.5 billion gallons of grain alcohol a year. The plants being built will double that -- still far short of the 35 billion gallons that Bush wants.

To hit the mark will require development of a still-experimental process called cellulosic processing. It can convert an array of plants, not just corn, into ethanol and do it in greater quantities. But a plant costs several times as much as building a still to process corn kernels into ethanol.

The White House hopes the high mandate creates an assured market that draws money and attention.

"We're going to need to see some technological breakthroughs. And that's why the president is setting this goal, so that investors, venture capitalists, researchers, scientists are all focused on that goal and can expedite and accelerate that technology," Joel Kaplan, deputy chief of staff, told reporters Tuesday afternoon.

Bush also called for doubling the emergency fuel supply, the Strategic Petroleum Reserve, to 1.5 billion barrels of oil by 2027. That would require expanding at least two of the current SPR sites and opening a new one, the Energy Department says.

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Objectives

Students will:

- ▶ Compare and contrast the benefits and pitfalls of this energy plan.
- ▶ Recount key facts about biofuels, gas efficiency and petroleum usage in the United States.
- ▶ Discuss developmental technology regarding biofuels.
- ▶ Pair definitions with key terms related to the cars and their impact on the environment.
- ▶ State their thoughts on the future of alternative energies for cars.

Preparation

Each student will need:

- ▶ A copy of "Energy plan seeks better gas mileage."
- ▶ A copy of lesson (but not the crossword answer key!).

15 minutes – Read and discuss it

As a class, read the article "Energy plan seeks better gas mileage" and answer the discussion questions.

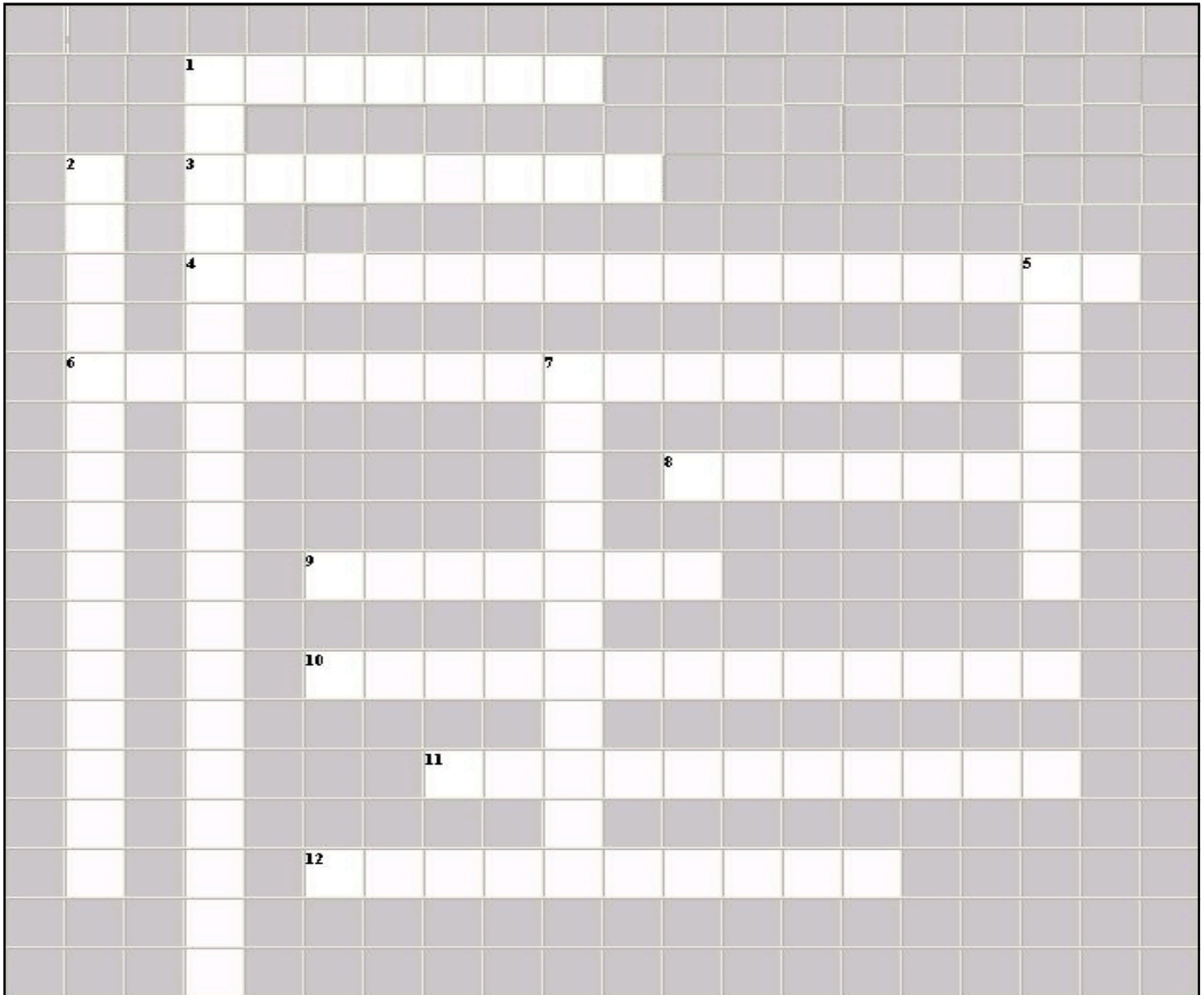
- ▶ According to the 2007 State of the Union Address, George W. Bush plans to require cars to have improved gas mileage by what year? These cars need to increase their fuel efficiency by what percent?
- ▶ By 2017, how many barrels of oil a day will the United States save?
- ▶ By 2017, Bush would also require what resource to be blended with gasoline? How many gallons of this ingredient would be needed? What are some of the roadblocks facing this requirement right now? What is Bush's hope, according to his deputy chief of staff, in mentioning it now when it's not required for 10 years?
- ▶ What are the pros of Bush's plan?
- ▶ What are the cons of this plan?
- ▶ Cellulosic processing is in the developmental stages. If you were a wealthy investor, would you invest in cellulosic processing? Why or why not?

15 Minutes – Analyze it

On the following page is a crossword puzzle, which requires you to identify key aspects of the fuel issues discussed in the article. The clues are listed below the puzzle and most answers (which may have more than one word) are in the article you just read and discussed.

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Complete the puzzle.



Down

- 1. Strategic Petroleum Reserve
- 2. not gasoline or diesel used for transportation--may not be renewable
- 5. to modify to serve a different function
- 7. ecology

Across

- 1. grain alcohol
- 3. speed up
- 4. longwave radiation emitted by the atmosphere
- 6. naturally replenished in a short time
- 8. a command
- 9. guaranteed
- 10. without this, the earth would be uninhabitable
- 11. using less gasoline
- 12. take the place of

