

WHEELS

For Automakers, Fuel Economy Targets May Be Less of a Stretch

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By AARON M. KESSLER JUNE 18, 2015

WHEN David Key drove his new mostly aluminum-body Ford F-150 pickup home this year, he knew he had made the right choice.

Mr. Key, of Holly Springs, N.C., outside Raleigh, previously owned a 2007 version of the truck with a beast of an engine — a 5.4-liter V8 — that gave him all the power he craved. But the new F-150 featured a much smaller, 3.5-liter V6, as well as a body made largely from aluminum instead of steel. He was intrigued, but a little nervous.

Could the new truck measure up?

“It’s been fantastic,” he said. “I can’t even believe it’s got a V6 in there because it gets more power” than the older truck. “And the gas mileage is incredible.”

Mr. Key, 47, said his new truck got more than 23 miles per gallon on a recent family vacation to Florida, a substantial improvement over the 18 m.p.g. he used to get.

When Ford first put a 6-cylinder turbo in the most popular vehicle in America several years ago, critics questioned whether consumers would accept the change. They did. When the company decided to then shed hundreds of pounds of weight by using aluminum, questions again were raised. Although sales have lagged the

pickup market this year, Ford has blamed supply issues and not demand.

Such innovations in engine technology and lighter, yet stronger materials are likely to power the entire auto industry as it strives to meet the looming 2025 fuel economy standards, a sweeping new report commissioned by the National Highway Traffic Safety Administration has found.

In fact, the 600-page report, released Thursday, found that hitting those fuel targets of a corporate average of 54.5 miles per gallon could most likely be done without as much difficulty as the industry had feared. For years, the industry has warned that the goals will be all but impossible to meet without widespread adoption of zero-emission technologies like electric cars.

While the study focused primarily on midsize vehicles, it concluded that existing technology like 8-speed transmissions, advanced turbochargers and lighter materials were most likely enough, on their own, to allow automakers to meet the 2025 standards. Electric or fuel-cell vehicles might still be bonuses for automakers, but they were unlikely to be necessary to reach the goal.

The study was conducted by the National Research Council of the National Academy of Sciences, which brought together experts from the auto industry, academia and environmental groups. It evaluated more than 100 combinations of fuel-saving technologies to measure both fuel savings and economic cost.

The cost of carrying out the new rules, the study found, would be significantly less than expected — roughly half of what a previous 2011 report by the same group had estimated.

“This is a good early indication that things are on track to meet the fuel efficiency goals on time and at a reasonable cost,” said Roland Hwang, director of the Natural Resources Defense Council’s energy and transportation program. “There were lots of claims flying back and forth early on about how much this would cost, and now we know it’s going to be very affordable by comparison.”

In calculating the cost to automakers of getting a typical midsize car to meet the 2025 target, the study offered two estimates: \$1,200 or \$1,700, depending on certain assumptions. By comparison, the 2011 study had estimated those costs

could be higher than \$3,000.

“This is great news,” said Dan Becker, a director at the Center for Auto Safety, an advocacy group. “It shows that you can achieve these fuel economy targets with a conventional vehicle, using normal engines, and to do so cost effectively.”

Automakers, however, remained skeptical.

Mitch Bainwol, chief executive of the Auto Alliance, a trade group representing several automakers, said that car manufacturers would review the report’s findings to “see how they square with the real-world challenges faced by engineers in our testing labs.”

“Today, automakers are using every technology available that can improve mileage and still keep vehicles affordable for Americans,” Mr. Bainwol said in a statement. “Looking ahead, we will need to see much greater sales of our most energy-efficient vehicles, including electric vehicles, to meet the steep fuel economy standards.”

Julia Rege, director of environment and energy affairs at Global Automakers, another industry trade group, said that “significant challenges remain” for manufacturers to reach the 54.5 miles per gallon fleet average by 2025. The current average is 31.5, according to an estimate by the University of Michigan Transportation Research Institute.

“Greater flexibilities will be necessary for the industry to meet the future standards,” Ms. Rege said in a statement, adding that automakers “look forward to continuing our work with the regulatory agencies.”

In 2011, when the Obama administration announced its plan to nearly double American automobiles’ corporate average fuel economy to 54.5 miles per gallon, the industry resistance behind the scenes was significant. As part of negotiations, the administration agreed to what was called a “midterm review” of the regulations in 2017 — a chance for automakers to take stock of where they are six years later and argue for possible weakening of the rules.

With regulators expected to complete that review by November 2017, the jockeying has already begun, and the safety agency commissioned the new report

to act as a vital resource to guide its decision.

“The industry keeps saying we need to change the rules at the midterm review because no one wants to buy an electric car,” said Mr. Becker of the Center for Auto Safety. “But the rules don’t require selling electric cars, and this report shows you really don’t need them to get there.”

Automakers disagree and point out that the study focused largely on midsize vehicles, while manufacturers’ larger offerings like trucks and S.U.V.s could need no-emissions electric vehicles to balance them out.

John O’Dell, senior editor at Edmunds.com, said that while automakers might have a point that more alternative fuel vehicles could be needed, the adoption of relatively simple, available technology like stop-start (which turns the engine off when a car stops) could make the difference.

Gasoline and diesel engines are becoming so good at squeezing every drop from a gallon of fuel that the cars of 2025 are likely to seem quite familiar, he said.

“They might drive themselves by then,” Mr. O’Dell said. “But they’re likely to be driving themselves using an efficient internal combustion engine combined with lighter materials.”

He pointed to Ford’s new F-150 as proof that automakers were already moving in that direction with even their largest vehicles, and that consumers were not only accepting, but flocking to them.

Mr. Key, the North Carolina truck owner, said he enjoyed how the lighter weight not only saved gas, but also made the truck more nimble on the road while he was driving.

At this point, he has yet to get any dings on the new aluminum body. In an effort to keep things that way, Mr. Key said he did not plan to give his two teenage daughters the keys anytime soon.

“Neither one of them are going to drive it,” he said. “This one is for me.”

Correction: June 19, 2015

An earlier version of this article misstated the current fleet average for miles per gallon, as estimated by the University of Michigan Transportation Research Institute. It is 31.5, not 25.5.

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