

New Fuel Laws Will Spur Greener Cars

Congress is calling for average 35 mpg fuel economy by 2020. Will imports have an advantage?

by [Jim Koscs](#)

Whatever the outcome of pending energy legislation, the call for an industry-wide fuel economy average of 35 mpg by 2020 seems certain. It's worth taking a look at some of the technology available today that will help carmakers achieve that goal.

"Consumers are open to any technology that will save them money and have a positive impact on the environment," said Edmunds.com Senior Analyst Jesse Toprak. "Hybrids will still be the main high-economy technology, but perhaps 10 or 15 years from now, fuel cells could pass hybrids. Diesels will be big, at least in the short term."

Hybrids in High Gear, But More Education Needed

Hybrids are certainly growing in popularity, with Toyota the clear leader. Calendar-year-to-date hybrid sales for Toyota Motor Sales (including Lexus) totaled 253,466 units through November, an increase of 45 percent over the same period last year. Toyota offers three hybrids under its brand and three from Lexus. The Prius is by far the best selling of the group, heading to 175,000 units for the year to make it more popular than many conventional models.

A consequence of Toyota's success with hybrids is that the federal tax credit available for the brand's vehicles expired at the end of last September. "We've had some disappointed customers, but we have not seen any decline in hybrid sales," said Natea Rayner of Toyota. "Savings from fuel costs right now help outweigh the loss of the tax credit," added Dave Lee, her colleague in the product training department.

A Prius-like hybrid success has thus far eluded Honda, but the company is shifting focus to more affordable, higher-economy hybrid models. It will offer a new gas/electric model in 2009 priced less than the current Civic Hybrid, and the recent CR-Z concept car hints at a possible sporty hybrid model, as well. Mercedes-Benz announced its first hybrid models coming for 2009, an M-Class SUV and an S-Class sedan; both will team a gasoline V6 with an electric powertrain.

David Conant, president of the CAR Group in Newport Beach, Calif. and owner of the country's largest Honda dealership, said, "Most people recognize the term 'hybrid,' but we find that many don't really know what it means. We're amazed at how many people ask how it works, and then they're surprised at the answer."

Conant added that people now automatically associate hybrids with high fuel economy. "They were disappointed with the Accord Hybrid, which was designed with a focus on performance, not necessarily high fuel economy." Honda has since discontinued the Accord Hybrid.

Toyota's Rayner said that more education is needed on hybrids. "A few customers still ask if the vehicle needs to be plugged in. The future is going toward plug-in hybrids, but there are still people who don't understand the technology we have today," she said.

One challenge for salespeople, Rayner added, is to ensure that customers do not view hybrid technology as generic. Salespeople must be able to explain the difference between the company's full-hybrid technology and so-called "mild" hybrids like the Chevrolet Malibu and Saturn Aura. Those models provide automatic stop/start systems to reduce fuel consumption, but their fuel economy is barely 10 percent better than that of the standard 4-cylinder models.

Diesels Come Clean

Clean-diesel technology is gaining in momentum and is expected to become commonplace. The technology varies from company to company, but the goal is the same -- quiet, smooth performance, impressive fuel economy and meeting the stringent Tier II/Bin 5 emissions certification.

"About half of cars sold in Europe are diesels versus only two percent in the U.S. right now, so there's lots of potential," said Toprak. The signature high torque of a turbocharged diesel engine will go a long way in winning over U.S. customers, he added.

Mercedes-Benz offered an E320 BLUETEC diesel sedan in 45 states for 2007, making it available as a lease in California -- the only diesel offered in the state. That model, along with three diesel SUVs, will be available in 42 states for 2008. The diesel SUVs will adopt the BLUETEC branding and be available in all 50 states for model year 2009, when new urea-injection is added to control oxides of nitrogen emissions. The next-generation E-Class will get the urea system when it arrives in calendar year 2009. Other brands are introducing different methods to control that pollutant without using urea.

"The E320 BLUETEC offers traditional Mercedes luxury and can get over 30 mpg on the highway," said Mercedes-Benz spokesman Rob Moran. "It accelerates about as quickly as the gasoline E350, but thanks to 400 lb.-ft. of torque, it can feel even quicker to the driver."

Volkswagen will bring in its powerful new clean-diesel Jetta models in late 2008 for the 2009 sales year. Honda has announced a new 4-cylinder clean-diesel for calendar year 2009 but has not yet said which vehicle will get the technology. The Accord seems the likely candidate, since it's no longer offered in a hybrid version. Mitsubishi will show a concept car at the North American International Auto Show in Detroit this coming January that previews a possible design for the next Eclipse sport coupe and at the same time showcases the brand's upcoming clean diesel technology.

"Selling clean diesels will take an educational process, but they'll catch on," said Conant. "The things that have turned people off on diesels have been addressed. Customers will like the new ones." The major names getting behind diesels will help make them more mainstream, he added.

Fuel Economy's Unsung Heroes

Other, less-visible technologies are also helping to boost fuel economy today. Honda's Variable Cylinder Management (VCM) system in the V6 Accord allows the car to run on 3, 4 or 6 cylinders. Honda spokesman Chris Naughton said the system's 4-cylinder mode has a broad operational range suitable for slight inclines and higher speeds than the first-generation VCM system used in the Odyssey minivan. "You're in a fuel-saving mode more of the time," he explained. The EPA fuel economy ratings of 19/29 MPG are just two MPG behind the 4-cylinder automatic Accord's 21/31 numbers, even though the V6 has a 90-horsepower advantage on the four.

Honda is also preparing a new, more advanced version of its V-TEC valve-control technology that can increase fuel economy by up to 13 percent. It's expected in about two years.

John Hawkins, president of the Great Metro Auto Group in Montclair, Calif. and current AIADA chairman, applauded the

advancing fuel-economy technology but voiced some concern over possible information overload for consumers. "The new CAFE standards will force everyone to bring results to the table, but I think people are confused by some of the claims out there. Some technologies that are still in the R&D phase are being touted as if they were already available in the showroom. The real focus should be on what's available today."

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