

MotorWeek Transcripts

AUTOWORLD 'CLEAN POWER DRIVE'

DAVIS: More and more alternative to the traditional gasoline engine are arriving almost daily. But, for consumers, more options don't make the choice any easier. Hybrids, flex-fuel, diesels – which is best on the wallet, and on the environment? Well, the best way to answer that is to drive them all, and that's just what we did – on a road trip that we call the “MotorWeek Clean Power Drive!”

Destination: Morgantown, West Virginia – home to the National Alternative Fuels Training Consortium as well as West Virginia University's Challenge X team workshop – both high on our list of places we've wanted to visit.

To get there, we rounded up 3 pairs of vehicles: The 4-cylinder subcompact Honda Civic, in both gasoline and Hybrid forms, The mid-size Mercedes-Benz E-Class luxury sedan, with gasoline and BlueTec diesel V6 power plants and from Chevrolet, the brand-new Two-Mode Tahoe Hybrid 4X4 SUV, as well as a Flex-Fuel version, capable of burning either gasoline or E85 – both with V8 power.

Our MotorWeek crew was joined by guest drivers from the US Department of Energy. None had previously driven the BlueTec diesel, but once underway, it quickly became a favorite and debunked forever the myth that all diesels are dirty, loud and slow.

STEVEN RICHARDSON, MOTORWEEK CLEAN POWER DRIVE: Driving the diesel Benz did change my perception of it. It was much quieter than perhaps I thought it might be going in.

KAY MILEWSKI, MOTORWEEK CLEAN POWER DRIVE: I particularly liked the BlueTec diesel – it was a nice combination of power and fuel economy.

DAVIS: Our test fuel economy of 32 miles-per-gallon for the E320 BlueTec is 6 miles-per-gallon better than the gas E350's result of 26. Base price for the BlueTec however, is remarkably just \$1,000 higher.

And that bargain holds up over the long haul too. Fuel cost per mile driven equals 17-1/2 cents for the diesel and 20.4 cents for the gas-burner. In a typical 12,000-mile year, that's about \$350 in fuel savings, despite the higher cost of diesel.

In addition to our standard fuel economy loop on all of the cars, for the Civic's and Tahoe's we were able to measure on-road emissions thanks to the technical wizards at Sensors Incorporated and their SEMTECH Mobile Emission Analyzer. This is the very latest technology, and gives a very clear picture of how green our fleet really is

ROB WILSON, SENSORS, INC.: EPA has determined that in some cases, vehicles emit 2 to 3 times what they normally would under laboratory conditions, in the real world. Now we can get real-time emissions results from vehicles as they're normally operated in the field. So it could be any kind of vehicle – construction equipment,

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agricultural equipment, as well as your everyday drive-to-work kind of vehicle.

DAVIS: And no car represents the working class commuter sedan better than the Honda Civic and Civic Hybrid. For our money, you really can't go wrong choosing either, but we'll do the math anyway:

Both cars fill up on regular gas, but the Hybrid, as expected, holds a huge economy advantage in city driving, and a modest lead on the highway. Our 157-mile mixed loop yielded 35 miles-per-gallon for the EX and 48 miles-per-gallon for the Hybrid, a 37% improvement

Cost-per-mile comparisons favor the Hybrid as well, at a stingy 8.7 cents versus a still frugal 12.6 cents for the standard gas powertrain.

After tax rebates, the Civic Hybrid will set you back only about \$1,600 more than a comparable EX sedan, but you can expect annual fuel savings over \$450 to fairly quickly offset that.

SEMTECH emissions testing clearly shows the hybrid as a more eco-friendly choice, especially in city traffic, but the numbers for the gas EX are also quite low.

JERRY GIBBS, MOTORWEEK CLEAN POWER DRIVE: When you needed power the hybrid gave it to you right away. There wasn't any hesitation – it just performed flawlessly.

DAVIS: Until now, we would never use the words Tahoe and fuel efficient in the same breath, but that was before GM's new 2-Mode Hybrid system was placed under the hood. On our test loop, we achieved 21 miles-per-gallon in the hybrid and 19 in the standard Tahoe, burning gas. A separate loop in the same truck with E85 in the tank returned no better than 14 miles-per-gallon. The gap was much wider in city-only driving, with the hybrid holding an advantage of 8 to 12 miles-per-gallon over the FFV.

In terms of fuel-cost-per-mile, the Hybrid leads with a figure of 18.3 cents, followed by the gasoline FFV at 22.9 cents and trailed by the E85 at 27.7 cents per mile.

Of course, there is a price to pay for this technology-induced efficiency, \$51,095 for a 4WD Tahoe Hybrid after tax credits or about 4 grand more than a FFV Tahoe loaded up to the hybrid's high level of standard content. That extra cash would buy a lot of gas and even more E85, but we expect SUV buyers to embrace these clean behemoths and choose green over greenbacks. Choosing the hybrid Tahoe will save about \$550 in annual fuel costs compared to the gas FFV, or \$1,100 versus E85.

The SEMTECH emissions test shows the E85 Tahoe is cleaner than gas overall. But in the critical greenhouse gas area highway CO2 emissions the hybrid was markedly better despite its bigger 6.0 liter V8.

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SCOTT MINOS, MOTORWEEK CLEAN POWER DRIVE: It's a very large vehicle of course, but performed well and I never realized that a hybrid would perform so well in such a large vehicle.

MILEWSKI: I thought the cylinder deactivation feature on both of them was really nice – it really doesn't make sense to be driving on all eight cylinders when you're going downhill and coasting and things like that. So I thought that was nice on both of them.

DAVIS: On the day of our visit the national alternative fuels training consortium was conducting a class for first responders and how to safely deal with hybrid vehicles at an accident scene. This is just one of the many topics the NAFTC provides curriculum outreach programs and hands-on training for. And as an added bonus for the attendees we were able to include our Civic and Tahoe hybrids in the demonstration along with Toyota Prius.

AI EBRON - NAFTC: what we are trying to do here is train first responders and others on what they may approach if a vehicle is compromised in some way. You can have a vehicle upside down, you could have a vehicle with a severe rear-end crash where the battery pack is etc. and what we are trying to do here is just let them know how to approach the vehicle safely in case one of the safety aspects may have failed. That way they are able to approach the vehicle safely and get the victim out.

DAVIS: Choosing a vehicle based solely on the bottom line is denying a big part of the equation. If you drive only in the city, then a hybrid makes great sense. Out on the open road all the time...then we might opt for a torquey, quiet diesel instead. The gas versus E85 question depends a lot on fuel availability and whether Ethanol prices continue to undercut gasoline, but we shouldn't overlook the fact that Ethanol is renewable and cleaner burning than gas.

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DENNIS SMITH – US DEPARTMENT OF ENERGY

I think the thing that I most surprised about and the consumers are going to be surprised about is that if they go shopping for a vehicle to get better fuel economy there's really so many choices out there now they didn't have before. I mean of this road test here we got family sedans, we got SUV's we got luxury vehicles and you know what there absolutely no compromise for me of these vehicles. I mean the performance was great, in fact the newer ones that you may have been surprised of, the hybrids, the diesel, they gave the best performance when we were driving these through the hills in West Virginia. Some of these vehicles didn't even downshift once compared to conventional vehicles so that really surprised me and that's going to really surprise the driver and the people out there shopping for these vehicles right now.

DAVIS: You can't put a price on cleaner emissions and our nation's energy security, but it just makes sense, given the option, to choose the cleanest and most efficient vehicle that meets your needs, if you can afford it. And considering the alternatives, driving clean power now may be the only way to ensure our own driving future.