In Honor of Earth Day 2011, AAA Names Its Top Picks for 'Green' Vehicles

ORLANDO, Fla., /PRNewswire-USNewswire/ -- In honor of the upcoming Earth Day 2011, AAA announced its top picks for 'green' vehicles. As part of the list, the auto buying experts at the nation's largest motor club explain the various 'green' technologies available to motorists and highlight some of the top vehicles in each category.

"There has been an influx of 'green' technologies by automakers into the market, which is great for consumers looking to make a more environmentally-conscious choice for their next vehicle purchase," said John Nielsen, AAA National Director of Auto Repair, Buying and Consumer Information. "Increasing the efficiency of the cars we drive means that less fuel is burned for every mile driven. That's great news for the environment and our pocketbooks."

Some of the technologies AAA highlights as making these advances possible include:

Electric Power

The year 2011 ushers in the new generation of fully electric vehicles that do not use gasoline at all. The Nissan Leaf is the standout in this category. The car is comfortable and the driving experience is enjoyable. Depending on traffic, speed and temperature, owners can expect to travel 50 to 80 miles on a single charge. That's well within the range of most daily commutes. Enhancing the Leaf's appeal, charging stations are increasingly available in the cities where this car is sold.

With the average cost for a kilowatt hour of electrical energy at approximately 12 cents, a full charge in a Leaf would cost around $3.17. That works out to between 4 cents and 6.5 cents per mile for fuel. A comparable compact car would burn nearly 11 cents worth of gasoline for every mile traveled. Making the Leaf even more appealing and green, there will be no need for oil changes, ignition system maintenance, fuel system service or exhaust pipe and muffler replacements.

The Mini E Electric and the Smart For two Electric Drive are also available (for lease only) in very limited numbers. Ford is planning on producing an electric version of its promising new Focus in the near future.

Plug-In Hybrid Electric Vehicles

Similar economy can be realized in the plug-in hybrid powertrains. These use a rechargeable battery pack that allows the car to travel up to 35 miles before the onboard gasoline engine starts. In some cars, this engine will provide power to the

drive wheels. In other models this engine powers a generator that delivers power to the motor driving the vehicle while also recharging the batteries. Unlike fully electric vehicles, a plug-in hybrid is limited only by the range of its gas tank.

The Chevrolet Volt, which is available in selected regions of the country but should be available throughout the nation by the end of 2011, uses this technology. Owners can plug in the car for recharging overnight then drive 25 to 40 miles before the gasoline engine starts to recharge the batteries. For most drivers, this range covers the daily commute, suggesting that the gasoline engine will rarely be needed. However, when a longer trip is planned, even one that goes from coast to coast, the Chevrolet Volt will be able to use its gasoline engine much as a normal car would.

While the Chevrolet Volt is the only commercially available plug-in hybrid electric vehicle (PHEV) now offered from a major automaker, watch for the Toyota Prius PHEV to arrive later this year.

Gasoline-Electric Hybrids

These cars and trucks use a gasoline engine and an electric motor. A full or parallel hybrid can run on either the gasoline or electric motor, or use both for maximum performance. A mild hybrid uses the electric motor to aid the gasoline engine, which must always be running when the car is moving. Full hybrids can travel on electric power alone. The Ford Fusion and Lincoln MKZ hybrids can hit speeds of up to 45 miles per hour and travel for more than two miles using only battery power.

Hybrids never need to be plugged into a wall outlet or external charging station to keep the batteries at full power. The gasoline engine that powers the car also handles the task of recharging the batteries.

For fuel economy and minimal environmental impact from its operation, the Toyota Prius is the hybrid to beat. Its fuel economy is outstanding, with many owners reporting 50-plus miles to the gallon in daily driving. Making the vehicle even more appealing is a surprisingly roomy and flexible interior.

The Ford Fusion also delivers impressive fuel economy, and its transitions from electric to gasoline power are exceptionally smooth. The new Hyundai Sonata hybrid is also impressive, with its roomy and family-friendly interior and good road manners.

Compressed Natural Gas

Vehicles running on compressed natural gas (CNG) marry efficiency with markedly reduced tailpipe emissions. While many gasoline-powered vehicles have been converted to run on compressed natural gas, which is abundant and produced in the United States, the Honda Civic GX is the only sedan that comes from the factory with this ability. CNG vehicles use a standard piston engine.

Let Us Not Forget Gasoline and Diesel Vehicles

The regular internal combustion engine is also getting greener, too. An excellent example of an economical gasoline-powered vehicle is the new Chevy Cruz Eco. In AAA testing, this very attractive compact averaged 36 miles per gallon.

Diesels are not often thought of as being "green," but the latest generation diesels produce fewer tailpipe emissions and significantly reduce carbon dioxide output. Today's diesels are so clean they meet environmental standards in all states, including those that have adopted the more stringent California emissions rules. Among diesel powered cars, the Audi A3 is a standout.

A Hydrogen Future?

Hydrogen has been proclaimed as the fuel of the future. It can be stripped from natural gas or derived from water using electrolysis. It can then be used to produce electricity from a fuel cell. The byproducts from generating this electricity, which can be used to run an electric vehicle, are heat and water. Currently Honda has a fleet of FCX Clarity fuel cell sedans on lease to drivers in California.

There are hurdles to be overcome, including the cost of fuel cells and the development of a hydrogen infrastructure. There also are interesting alternative uses for these vehicles. One such application: A fuel cell powered car could easily provide electric power to an average home in the event of a power failure. What role hydrogen will play in the future is still to be decided. The performance of cars, such as the FCX Clarity, however, is not in doubt. It is a thoroughly credible vehicle.

AAA's top picks for new vehicle technology are selected by AAA Auto Buying experts who review hundreds of vehicles each year. The list takes into consideration not only the first appearance of a new technology in vehicles, but also its availability to U.S. motorists in popular mainstream vehicles.

AAA's top picks are selected by its auto buying experts who test drive and evaluate hundreds of vehicles each year. AAA provides free vehicle reviews, localized pricing information and more for consumers online at AAA.com/AutoMaker. Additional information on AAA Auto Buying is available at AAA.com/AutoBuying.

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