

Roadsters embrace green racing

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Fast and green. That's what it takes to get to the winner's circle in a new type of auto racing.

Called green racing, it's a meshing of the fast and furious world of auto racing with the quest for cleaner-burning fuels and more energy efficient engines. But make no mistake about it, being green does not mean being slow.

John C. Glenn, an environmental specialist with the U.S. [Environmental Protection Agency](#) (EPA), described green racing here today at the 13th Annual ACS Green Chemistry & Engineering Conference.

The conference is organized by the ACS [Green Chemistry](#) Institute, a nonprofit organization devoted to promoting and advancing the discovery and design of chemical products and processes that eliminate the generation and use of hazardous substances in all aspects of the global chemical enterprise.

Green racing is a concept that awards a prize to the fastest car that produces the smallest environmental footprint in a race. The hope is that the concept will lead to vital innovations in the cars we use in everyday life, clean up the environment and help reduce our dependence on foreign oil.

"Race cars actually move the technology of street cars in several ways," Glenn says. "One, the technology of race cars develops at a much faster pace than the technology in street cars. And two, they form the basis of

what kind of cars people want. They see cars racing on the track, and that's the kind of [car](#) they want to buy."

Green racing was the brainchild of Glenn and others at the EPA. In 2006, the EPA, U.S. Department of Energy, Argonne National Laboratory and SAE International formed the Green Racing Working Group to establish criteria for this new type of racing. Two years later, the American Le Mans Series announced it would become the first racing series to put the environmentally focused competition on the race track.

The first American Le Mans Series race to feature the Green Challenge—essentially a race within a race—was held last October. Michelin is sponsoring the series for 2009, which has been renamed the Michelin® Green X® Challenge.

The prize recognizes speedy cars that are eco-friendly based on three primary factors: energy used, greenhouse gas emitted and the amount of petroleum displaced by alternative fuels. The complex 30-plus part scoring system — developed by researchers at Argonne National Laboratory — takes vehicle mass and average speed into account in order to prevent cars from running slow just to get a better score.

"These are still 200-mph cars. We clearly did not want to change racing. We didn't want to make it boring and slow," Glenn says. "We didn't feel as if that would accomplish our goal, which is to get people to use more energy-efficient vehicles and to stimulate the development of more energy-efficient technologies."

The American Le Mans Series is the perfect testing ground for new green racing technology, Glenn says. It's the only racing series in the world where all cars are allowed to race powered by alternative "street legal" fuels, such as cellulosic E85, E10, clean sulfur-free diesel and gas-

electric hybrids. Racers compete in four classifications including GT, which are modified street cars. "It's a much more interesting event with broader technological applications," Glenn notes.

In addition to the American Le Mans Series, several other racing series have become more eco-friendly, allowing the use of ethanol and other renewable fuels. Still, much of racing today remains focused on entertaining fans rather than technological innovation, Glenn says. And he has message for those who resist going green.

"When I talk to people involved in racing, I tell them, 'you're coming to a crossroads. You can either be the poster boys for global warming or you can be part of the solution. It all depends on you,' " Glenn says.

Source: American Chemical Society ([news](#) : [web](#))

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