



GREEN CHALLENGE™ RULES AND REGULATIONS SET

American Le Mans Series Poised to Change the Paradigm of Motorsports

ATLANTA, Ga. (June 25, 2008) - It seems only a short time ago that a \$60 barrel of oil caused great concern among industry business leaders, politicians and consumers. There are now predictions that \$200 a barrel may be likely. Gasoline prices have escalated to all-time highs while automobile sales are decreasing at rates not seen in decades. Combined with higher levels of greenhouse gas emissions, climate change becomes increasingly apparent.

While The American Le Mans Series will not portend to have a solution for the escalating price of crude oil, it *will* profess to have a solution for helping the auto industry - and ultimately consumers.

To further emphasize its commitment to help auto manufacturers find alternative fuel solutions and reduce greenhouse gas emissions, the American Le Mans Series in concert with the U.S. Department of Energy, the U.S. Environmental Protection Agency and SAE International announced at the North American International Auto Show earlier this year that it would implement the first ever **Green Challenge™** at its signature event - **Petit Le Mans, October 4 at Road Atlanta**. Officials from those entities will be on hand to present trophies to the winners for that **race-within-a-race**. In 2009, the *Green Challenge™* will include all Series events and culminate in a *Green Challenge™* Championship Award made by these three organizations.

In recent months, members of the aforementioned entities have comprised the Green Racing Work Group commissioned with the task of creating the rules, regulations and protocols of that competition in which all race cars would participate in a competition measuring three critical criteria:

- Performance
- Fuel Efficiency
- Environmental Impact

“This has been an interesting and challenging process,” said Scott Atherton, President and CEO of the American Le Mans Series. “With four different classes of cars, 14 auto and chassis manufacturers, and three different alternative fuels to take into consideration, a formula of how to create a fair competition with real time analysis and a format that is easy to understand and communicate has been very difficult. It has taken hundreds and hundreds of hours and involved some of the finest technical minds in the automotive and energy industries.”

The American Le Mans Series and internationally recognized Argonne National Laboratory have developed a *Green Challenge*[™] ranking system to be used for all cars competing in the Series. Cars will be ranked by the:

- amount of energy they use
- greenhouse gases (GHG) they emit
- amount of petroleum they displace

In brief, race cars that go the farthest, the fastest with the smallest environmental footprint for the energy used will get the lowest scores. The *Green Challenge*[™] point score differs from racing score totals in that the lowest number wins. Two awards will be given - one to the lowest score among the prototype classes (LMP1 and LMP2) and one to the lowest score among the GT classes (GT1 and GT2). Thus, the Prototype and the Grand Touring (GT) race car that uses the least energy, the least petroleum and emits the fewest GHGs on a distance and speed equalized basis will be the winners.

During the 2009 season, those teams will earn the same number of points toward the season-long *Green Challenge*[™] Championship as those earned by the race winners each race in the overall American Le Mans Series Championship. **All teams** will participate and qualify for the *Green Challenge*[™] and receive points for their *Green Challenge*[™] scores for each race based on the Series' race point structure (i.e. maximum points for less than four hours is 20; for four to eight hours, 25; and for more than eight hours, 30). The twist, however, for winning the *Green Challenge*[™] Championship is that each American Le Mans Series team starts off the season with the maximum number of points available for all the scheduled races (i.e. - 250 maximum in 2008). When teams win *Green Challenge*[™] Championship points, they are deducted from this total. As a result, the points decline for successful teams over the course of the season with the lowest total at season's end, winning a *Green Challenge*[™] championship for one prototype and one GT team.

The aforementioned ranking factors (energy used, GHGs emitted, petroleum displaced) will be compiled into a single weighted number representing the car's environmental performance. Race cars that use less energy and petroleum and produce fewer GHGs will score low. All measurements and calculations will be done on a well-to-wheel (life cycle analysis) basis, the most comprehensive and realistic approach to establishing the environmental impact of racing.

The GREET model developed by Argonne calculates all the energy consumed and the GHGs created from the time the oil is pumped out of the ground, the corn is seeded in the field or the wood waste is harvested, to its use as fuel in the car. [*GREET stands for Greenhouse gasses, Regulated Emissions and Energy use in Transportation. It evaluates energy and emission impacts of advanced vehicle technologies and new transportation fuels, the fuel cycle from well to wheels and the vehicle cycle through material recovery and vehicle disposal.*]

The difficulty of creating such a formula to rank environmental impact arises from the realities of racing that have to be factored to make valid energy comparisons. Faster cars and heavier cars use more energy and produce more greenhouse gasses than comparable slower or lighter cars. Cars that go farther during a race also require more energy.

To develop the formula, Argonne and the American Le Mans Series created "normalizing factors" for each variable so that they could accurately and fairly compare

the environmental performance of each car in the race. The normalizing factors took into consideration such things as **average speed, distance covered** and **car weight**. These calculations were compared using sophisticated computer modeling with previous races to check their validity. In some cases, the cars that win the race will also get the best environmental performance score, but that will not always be the case.

“Motorsports has always enjoyed the distinction of being at the forefront of advanced automotive engineering,” said Andy Karsner, U.S. Department of Energy’s Assistant Secretary of Energy Efficiency and Renewable Energy, “and it has been a primary catalyst for moving new technologies to the showroom floor. The leadership role the American Le Mans Series has taken by embracing open and diverse alternative fuel technology platforms has not only set the bar for automotive racing, but it has helped redefine the future of the transportation sector.”

The American Le Mans Series, where automobile manufacturers race to develop technologies for future consumer cars, is the only racing series in the world where all its cars race on not one, not two, but three alternative “street legal” fuels: clean sulfur-free diesel, E10 and cellulosic E85 ... with rumors of a next-generation hybrid soon to come. “Street legal” refers to fuels that are virtually the same as the consumer buys at the fuel station. The Series has 11 auto manufacturers/marques involved, more than any other major racing series in the world.

“We have always claimed to be the most relevant racing series on the planet,” said Atherton. “Now, we hope to play a role in saving that planet by working with manufacturers on innovative alternative fuel solutions and new technologies. We believe this could be truly paradigm shifting by effectively putting the auto back into auto racing and taking the sport from a form that for some has been primarily entertainment-focused to one that is also relevant and issue-focused. We are working with the car companies on new technology that matters.”