

RACING GREEN GOES TO THE US

By John Griffiths

DETROIT, Mi: In one of the smartest political moves by the motorsport industry on record, the hugely powerful and influential US Department of Energy and Environmental Protection Agency (EPA) have been brought onsite to promote a top-level motor racing championship. Such a move – they are even to award what is to be known as the “Green Racing Cup” – might be expected to attract howls of

outrage from environmentalists. However, senior officials have told Race Tech that they are more than ready to face down criticism, insisting that the motorsport industry is capable of delivering technologies to combat global warming faster than any other and that it deserves maximum support.

It is an endorsement, senior US motorsport officials said at the Detroit motor show launch of the “Green Racing Challenge”, ▶

The Five Protocols

THE PROTOCOLS being set by the SAE for a championship or series to qualify for Green Racing classification are expected to be published in their final form in the next few weeks. They focus on characteristics that measure performance, fuel efficiency and ecological impact:

Renewable bio-based fuel or fuels; use of multiple types of power units such as fuel cells, batteries or hybrids; adoption of regenerative energy storage systems; use of emission control systems; and use of other energy efficient systems arising from oil well-to-wheel energy analysis.

“The auto manufacturers competing in the American Le Mans Series have made it very

clear that this is a direction and an overall initiative that is important to them,” said ALMS’ president and chief executive, Scott Atherton. “The opportunity to align formally with the Environmental Protection Agency, Department of Energy and SAE International makes our platform very special and unique to auto manufacturers and ultimately to consumers. At a time when nearly all of motorsport has lost its relevance regarding progressive technology or any connection from the race track to the showroom floor, the American Le Mans Series stands alone in providing a platform of solutions for our nation’s automotive, transportation and energy needs.”

Chevrolet commits to E85 Corvettes for ALMS and Le Mans

DETROIT, Mi: Corvette Racing will be powered by E85 ethanol, a high-octane, renewable alternative fuel, in the 2008 American Le Mans Series. As part of the series’ “green racing” initiative, the most successful team in ALMS history will use a blend of 85% and 15% gasoline in the demanding arena of endurance road racing.

After winning its seventh consecutive GT1 manufacturers and team championships in 2007 using E10 (10% ethanol), Corvette Racing’s twin Compuware C6.R race cars will make the transition to E85 for the 2008 season.

“Since its inception, Corvette has always been a platform for Chevrolet and GM to introduce and develop new technology,” said Ed Peper, Chevrolet’s general manager during the announcement at the North American International Auto Show in Detroit in early January. “Like the Corvette Z06 E85 concept car that will pace the 2008 Indianapolis 500, the use of E85 ethanol fuel by America’s premier production sportscar racing team in a high-profile, high-tech racing series like the ALMS shows that Chevy is

continuing to lead by example.

“By showcasing the capabilities of E85 ethanol before an audience of knowledgeable and technically astute race fans, we can demonstrate the benefits of a renewable fuel that helps to reduce dependence on petroleum, helps to reduce emissions of greenhouse gases, and helps to create greater diversity in energy supplies,” said Peper. “Of course, performance is what counts in racing, so E85 ethanol’s higher octane rating than gasoline wasn’t overlooked by the Corvette Racing engineers.”

Corvette Racing has formed a technical partnership with the Ethanol Promotion and Information Council (EPIC) to spotlight E85 in the ALMS. EPIC worked with ALMS officials to make E85 the fuel of choice for the series. E85 today is primarily made with grain-based ethanol that reduces carbon dioxide emissions by as much as 29% compared with pure gasoline.

Corvette Racing is targeting the season-opening round of the 12-race series, the Mobil 1 Twelve Hours of Sebring, on March 15, 2008, for the debut of its E85-powered race cars.



ABOVE Chevrolet general manager Ed Peper is photographed with an ALMS championship-winning Corvette race car that will use E85 ethanol fuel in the upcoming American Le Mans Series. (Photo by John F. Martin for General Motors)

of which the industry – increasingly aware of its vulnerability to environmentalists' hostility as a direct fuel user – hitherto has been able only to dream. It was reinforced at the launch by federal US officials praising the increasing contribution being made by the motorsport industry in speeding up the technology and innovation responses of both the aerospace and defence industries.

OFFICIAL RECOGNITION

The challenge is to be launched as part of the Mobil 1 American Le Mans Series, the first 2008 race of which is the Sebring 12 hours on 15 March. It puts the EPA and Energy department in partnership with major carmakers, the Society of Automotive Engineers (SAE) and the US' International Motor Sport Association (IMSA) as well as various behind-the-scenes individual architects – not least the legendary former General Motors racing chief, Herb Fischer – as well as some leading lights within the UK's Motorsport Industry Association. Manufacturers currently represented in the ALMS series are General Motors, Honda, Audi, Aston Martin, Mazda, Porsche, Ferrari, Ford and Peugeot.

At the core of the concept is the opening up of one of the world's highest-profile race series to virtually any form of "green", CO₂-reducing or otherwise environmentally "friendly" technology. Taken to its ultimate conclusion, the series could result in hybrid, fuel cell, hydrogen-powered or even wholly electrically-powered cars racing wheel-to-wheel against each other, although the challenge's proponents readily acknowledge that this year's first steps are likely to focus primarily on biofuels.

However, the concept of the challenge is intended to spread much wider afield than ALMS. It is based on five protocols drawn up by SAE International in consultation with the two US government agencies and the carmakers which are designed to be applicable to almost any category of motor racing. Other championships are to be encouraged to frame rules with the same format, with those meeting all five protocols qualifying to set up their own Green Racing Cup, and others meeting three of the protocols qualifying to set up a lower-key "green" series.

BUSINESS OPPORTUNITIES

While there is no federal government grant aid on offer, such high-level encouragement for motorsport companies to involve themselves much more closely in energy-efficient automotive technology is being held out as a major business opportunity for their rapid response and innovation skills.

The message was reinforced, albeit indirectly, at the Detroit show by Larry Burns, GM's veteran head of research, development and strategic planning, who predicted to Race Tech that by 2030 only 20% of vehicles would be powered by petrol or diesel, with biofuels and other 'alternative' liquid fuels by then accounting for 40% and electrical energy-based propulsion systems for the other 40%. In a move sending out ripples of surprise, GM is also putting its money where its mouth is by making the auto industry's first direct investment in an ethanol fuel-manufacturing venture, with a US company, Coskata. GM and Coskata say jointly that the venture will produce biofuel globally at less than \$1 a gallon.

Of potentially considerable importance to motorsport

EU climbs on the bandwagon

BRUSSELS, Belgium: The European Parliament has added its own call for Formula One rule changes to help alter public attitudes towards green technologies, as part of a wider report calling for changes within the automotive industry to help reduce carbon dioxide emissions.

The report, Cars 21, called for rule changes allowing the easier adoption of environmentally friendly technologies such as biofuels, four-cylinder engines or hybrids. The findings of the report were adopted after a vote in which 607 MEPs were in favour and only 76 against.

It drew a welcoming but nevertheless non-committal response from FIA president Max Mosley. "We hope that new technical regulations (already announced for F1) will encourage a transfer of energy efficient

technologies into the domestic car market for the wider benefit of society," he said in reply.

Meanwhile, motorsport's self-proclaimed world cup, A1 Grand Prix, has begun using E30 fuel, a blend of 30 per cent bioethanol with petrol.

Biofuels received another boost in competition when a LMP3 Norma M20F Le Mans prototype finished second at the recent 25 Hours of Thunderhill in the US. It was one of two entered in the race by Green Alternative Motorsports, founded by Stephen Zadig, vice-president of operations at a Silicon Valley-based semiconductor company. The fuel was supplied by the Ottawa-based Iogen which has built and operates a demonstration scale facility to convert biomass to cellulose ethanol using enzyme technology.

companies across Europe, the industry, with the backing of the US agencies, is also drawing up plans to engage national governments and the European Commission in Brussels with the aim of setting up a parallel green racing project within Europe.

QUICKER SOLUTIONS

"The EPA and Department of Energy are convinced, like us, that it will bring forward solutions to CO₂ and other problems much faster. The motorsport industry can bring on in just one year technology which typically takes five years in the automotive industry mainstream," Doug Robinson, IMSA's executive director who is also helping to co-ordinate the project, told Race Tech.

The initiative was described by Ed Wall, the US Energy Department's programme manager for vehicle technologies, as "a tremendous

opportunity to demonstrate to educators and consumers about alternative fuels and innovative, efficient automotive technologies in an interesting and dynamic way that captures the public's attention. These subjects are driven home and made real and pertinent when consumers see some of the fastest cars on the circuit competing, for example, with E85 biofuel or clean diesel. The fact that manufacturers are already actively competing with these alternative fuels makes our association with the series a natural fit."

Bringing the concept to Europe should be made easier by the involvement of Lord (Paul) Drayson, the UK's defence procurement minister until a few months ago but who resigned to set up his own team in partnership with Barwell Motorsport and Aston Martin to drive his bio-ethanol fuelled Vantage in the GT2 category of ALMS. **RT**