

FIM Alternative Energy Newsletter

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Introductory words by Robert Rasor, FIM AEWG Chairman



When the FIM first established its Alternative Energy Working Group, it was necessary to evaluate three emerging technologies: bio fuels, electric and hydrogen for possible adaptation to the motorcycle platform. In the recent months electric/battery powered two wheelers have, literally, raced to the forefront as the most preferred option.

In 2009 we have seen the emergence of multiple vehicle manufacturers releasing rechargeable electric bikes, internationally watched electric bike racing, the development of both national and international electric series with a growing acceptance of this exciting alternative power that has proven to be easily adapted to motorcycles. With such rapid development, and fan enthusiasm, we can only guess what is in store for 2010. It is sure to be a high voltage year.

Robert Rasor, FIM Vice-President, FIM AEWG Chairman

Green Motorcycling gears up for Climate Change Summit in Copenhagen



On 11, 12 and 13 of December, the first FIM Ride Green Eco Enduro will open a new page of motorcycle history by registering electrical motorcycles only. This international competition organised jointly by Ivan Reedtz-Thott (World Champion Runner-up Rallies Quad - six entries (car) in the Dakar), Vivi Siig and Soren Clauding (owners of Scandinavian Racing Press), the Danish Motor Union (DMU) with the support of the FIM (Fédération Internationale de Motocyclisme) will take place at the same time as the COP15, the United Nations Climate Change Conference.

The concept of this event is to show the world that mechanical sports and riders can be environmentally responsible and are prepared to seek new ways and innovative solutions to reduce the sports' negative impact on the world's climate. The first two stages are configured as a regular enduro race, on different kinds of terrain, but on the last day, the race will become a Super Motard/MX race on a small circuit, built for the occasion in a military area, not far from downtown Copenhagen.

Vito Ippolito, FIM President said: "As the world governing body for motorcycle sport, the FIM is pleased and proud to support this event that will be held close to Copenhagen for the first two days and in the centre of the city on Sunday 13 December. The FIM Ride Green Eco Enduro that will take place during the United Nations Climate Change Conference will boost exposure to this great initiative organised by passionate and motivated people and show the world that motorcycling is moving fast to prepare its future. From a sporting point of view, we will be able to demonstrate that electric motorcycles can run an Enduro event which will be stimulating for our people to shape the future of the sport. The FIM wants to thank the organisers and the DMU and wishes good luck to all the participants!"

Source: FIM

FIM launches the FIM e-Power International Championship

The FIM announced officially on 19th November 2009 the launch of the first electric motorcycle racing championship in the world, the "FIM e-Power International Championship". The 2010 events will be held during the opening race of a few rounds of FIM's prestigious championships such as the 24 hours at Le Mans (France), 8 hours at Albacete (Spain), *le Bol d'Or* (France), with the final 8 hours in Doha (Qatar).

Concerned about the preparation for the future of motorcycle sport and in order to promote Alternative Energies, the FIM aims to gather a number of teams in the motorcycling world to strengthen its efforts in promoting new energies within the framework of the United Nations Environmental Programme.

Vito Ippolito, FIM President stated: “The FIM, as the governing body of motorcycle sport, must take into account current environmental problems. While reminding us of our duties to the environment, the FIM is pleased about and proud of the creation of the FIM e-Power International Championship that will be managed by the Road Racing Commission (CCR).”

Claude Danis, Road Racing Commission President added: “The CCR is enthusiastic to support this new championship. We have already seen the interest of the organisers, who like us, are concerned about environmental issues and who want to be involved in competitions using new energy for the benefit of the motorcycle racing of tomorrow.”

Details on the organisation of this championship will be announced in the coming weeks and other dates should be added to the 2010 provisional calendar. The opening race of the FIM e-Power championship will take place on 18th April in France, before the Le Mans 24 hours.

Source: FIM

NEWS from Brussels

Electric Vehicle standardization event at EURELECTRIC

On 27th October, LOGOS attended on behalf of the FIM AEWG the Electric Vehicle standardisation event organised by the European Union of the Electricity industry, [EURELECTRIC](#). The event was organised in Brussels in parallel with an exhibition of plug-in electric vehicles - roadsters, cars, small trucks, tricycles and scooters, together with charging stations. Vice-President of the European Commission in charge of Transport, Antonio Tajani, joined the event and expressed its support for “Electromobility”.

Speaking at the event, representatives of the electricity industry claimed that electricity can take away carbon emissions from Transport if the development of electric vehicles is combined with the development of electricity production from Renewable and Nuclear Energy. They recall their commitment to produce electricity with no CO2 emissions by 2050. They insisted on the fact that their role is to provide the infrastructure allowing for the development of electric vehicles, meaning to build a standardised charging infrastructure and to adapt the infrastructure by increasing the capacity of the grid.



Going into more details, Peter Birkner, from RWE, leading German electricity producer, explained that with the parallel development of renewable generation of electricity and electric vehicles, the electricity infrastructure managers will have to fill the gap between a volatile generation and a volatile consumption of electricity. He expressed his belief that since Electric Vehicles are close to the technological breakthrough, RWE is thus already putting charging stations all over Germany.

EURELECTRIC foresees an increase of 10 to 15% of increase in power needed to fuel electric vehicles. However, according to them, in the EU the development of electric vehicles is more a problem for the grid than for electricity generation.

Standardisation is essential since there is a need to make it convenient for divers of Electric Vehicles to recharge their vehicles. The industry is thus focusing on this issue.

Concluding the event after having visited the exhibition and gone on the Piaggio Hybrid Mp3, Antonio Tajani underlined the advantages of electricity as energy for transport: a large share of the infrastructure is already available; it can be entirely produced from renewable energy. He mentioned the actions of the European Commission to promote “Electromobility” such as the *Directive on the promotion of clean road transport* and the Green Car Initiative. He declared that the next EU Framework Program for Research together with the upcoming White Paper on Transport will demonstrate the willingness of the EU to develop Electric Vehicles.

Please contact [LOGOS Public Affairs](#) for the full report of the event.

Source: LOGOS Public Affairs

Batteries association promotes electric mobility in the European Parliament

On 3rd November, LOGOS attended on behalf of the FIM AEWG a lunch debate on the potential of electric vehicles in the European Parliament with representatives of the batteries industry and officials from the EU institutions.

This lunch debate was organized by RECHARGE, the Association for the Promotion of Rechargeable Batteries, whose members are battery producers such as SAFT and Umicore and users such as SANYO or Black & Decker. This lunch was part of RECHARGE’s 4th Battery Collection Day. It was co-sponsored by 4 Members of the European Parliament and entitled “How the battery industry responds to market & consumer expectations: The example of hybrid and full electrical vehicles.”



Representatives from the industry underlined the importance of batteries since the EU is aiming towards more renewable sources of energy, which are not stored energy; storage needs to be the closest possible to the consumer to be efficient. According to the industry, electric vehicles could be used as additional storage when needed. They agreed that smart electricity grids need to be developed.

Participants insisted on the need for recycling the batteries, in order to ensure a clean life cycle approach, to face with the scarcity of resources like lithium and to fight against unsafe recycling of raw material in developing countries.



The Secretary General of RECHARGE presented 2 Life Cycle Approach studies demonstrating the Added Value of Using Rechargeable Batteries in Private Transportation Mode. One study focused on Nickel Metal Hydride Batteries in Hybrid Electric Vehicles Applications and the other on Lithium-Ion Batteries for Full Electric Vehicle Applications. These 2 studies aimed at calculating the input needed to build those vehicles (including for instance the extraction of lithium and its environmental consequences) and the environmental damages related to the final use of the vehicle. The total result was compared with the results for cars running with Internal Combustion Engines.

The studies concluded that the additional environmental Impact of the battery and the E-Drive is in the range of 14 % for an HEV and of 29 % for a BEV; however, over the Life Cycle of the Car, the reduction of the environmental impact is in the range of 53 % for a full electric car and of 30.6 % for an HEV. The presentation of the studies can be obtained from LOGOS.

Fiona Hall, one of the Members of the European Parliament hosting the event concluded the lunch by underlining the potential of electric mobility to fight climate change and to trigger economic growth. She however insisted on the fact that this potential depends on 2 key aspects: the share of renewables in the electricity mix and recycling of batteries.

Source: LOGOS Public Affairs

LPG: the fossil fuel of the future?

On 18th November, the European LPG association organised in the European Parliament a roundtable discussion on the role of autogas in the future of European Road transport, attended by LOGOS for the FIM. Autogas means to them LPG and other gaseous fuels, including gaseous fuels from biomass.

Representatives from the LPG (Liquefied Petroleum Gas) industry stressed the potential of “Europe’s most widely used alternative fuel” (15% of new vehicles sold in Italy, the main market for LPG, run on LPG, as do 15% of Polish cars); they claimed that between unsustainable dependence on conventional fuels and the rapid transition towards unavailable or unproven technologies, autogas was a third way. According to them, autogas has the advantages of being a low carbon fuel (20% less CO₂ than petrol and nearly no particulates) and costing half the price of conventional fuels. Furthermore, LPG, currently a by-product of the oil production, can be progressively substituted by methane from biomass.



The representative from the European Commission, Mr. Furfari, denounced the fact that EU institutions are working on “fashion mode” on the issue of alternative energy for transport, following a “fuel-of-the-day” policy, focusing on electricity, then on hydrogen, then on biofuels, then back to electricity. Giving its support to autogas, he explained that the objective is to be less reliant on oil as soon as possible and to investigate to find the right alternative solution, even if each fuel has its advantages and drawbacks. Answering question on the criteria that would be used to make such a choice, Mr. Furfari said that cost (of technology and infrastructure) will be the key aspect.

This positioning was not really in line with the more classical political statement of the European Commission, which never really mentions LPG and autogas as an alternative for the future. This can be understood since European institutions are focusing mainly on renewable fuels, which LPG is not.

Source: LOGOS Public Affairs

NEWS FROM THE FEDERATIONS

Electric Motorcycling challenge in France



On 18 October, the Fédération Française de Motocyclisme (FFM) held its first official competition with electric motorcycles racing side-to-side with thermal engine bikes. The “course sur prairie de Gironville” featured the FFM’s first ranking of electric motorcycles, where the Zero motorcycle made an impressive debut in first place, followed by the two other Quantya electric models, in second and third place, that took part in the event. The motorcycles sparked a very positive and curious response from the public, impressing the crowd with the motorcycles’ quick start and cornering ability.

The event was part of a series of FFM actions to promote sustainable development via electric motorcycling. Organised in October and November, the “OSET BIKE days” offered young riders the chance to discover the technology by testing electric mini-bikes. Please contact the FFM for more information.

Source: The FFM

TTXGP Announces UK Championship 2010

TTXGP announced the dates and venues for the planned TTXGP UK Championship 2010. The Championship will consist of three dates: the first at Cadwell Park on July 3-4, the second at Snetterton, July 17 – 18, and the third in Castle Combe on September 11. Team Agni, the winners of the 2009 TTXGP at Isle of Man will field 2 bikes in the TTXGP UK Championship and Isle of Man, together with electric motorcycling team Betti Moto who have announced their participation. More teams will be announced shortly.

Source: eGrandPrix

NEWS FROM THE INDUSTRY

EICMA proves the growing interest on electric mobility

Silvio Manicardi attended for the FIM AEWG the only international motorcycle show of the year in Europe, EICMA 2009, 10th to 15th November in Milano, looking for motorcycle running on alternative energy.

Electric mobility had a special dedicated area of the exhibition called "The green planet". However, electric vehicles could also be seen in many other stands; many of those were presented by Chinese companies. In China today some of the major cities have forbidden the use of internal-combustion-engine scooters. It pushed for the rapid introduction of electric scooters as a clean alternative for personal mobility.



Some projects appeared to be of particular interest. One of these was the new Malaguti [hybrid scooter](#), developed in conjunction with Ducati Energia and a Chinese University; this hybrid scooter is based on an electric motor ("hub motor") fed by batteries coupled with an endothermic engine, just working when the charge level of the batteries is low.

[Acta Energy](#) presented an innovative full hydrogen system, included a small size hydrogen generator and a power generator running on hydrogen, which can be used instead of a battery on electric power-two-wheelers. Quantya, the already well know producer of off-road racing bikes was of course well represented in the show along with electric prototype racing bikes such as the one presented by [VEMA GMBH](#).

Source: Silvio Manicardi

Suzuki and Intelligent Energy team up on hydrogen challenge



Suzuki and Intelligent Energy have been working on hydrogen fuel cell-powered two-wheelers for the last few years, with their first public concept, the Crossage, debuting back in 2007 at the Tokyo Motor Show. Rumour had it earlier this year that the company also wanted to have production of its hydrogen model ready within the next 12 months.

Falling in line with those expectations, Suzuki unveiled a new concept last week at the most recent show in Tokyo, with a proprietary fuel cell and storage system based on a regular old Burgman scooter.

The magazine *Wired* reports that it can be expected these hydrogen two-wheelers in production in very short order. According to Dr. Henri Winand, CEO of Intelligent Energy, "these clean fuel cell engine-powered motorcycles are not simply for motor shows, and can be widely available to everyone in the near future."

Source: autobloggreen.com

Vectrix lives again

It appears that Vectrix could soon declare itself out of bankruptcy and back for producing electric scooters. According to a press release found on the V is for Voltage forum GoldPeak Batteries has scooped up "New Vectrix" and changed its name to back to its original Vectrix Corporation. The new owners had a partial stake in the company previously and were, indeed, the supplier of their nickel-metal hydride (NiMH) battery.

The Vectrixes of the future will come with a lithium iron phosphate (LiFePo4) battery that should improve range and eliminate some of the problems buyers have had with the original chemistry. There have been reports of problems balancing voltages within the cells and shortened range and battery life due to operation in high ambient temperatures. Not only will the new machines be packing lithium power but the company hopes to offer an upgrade kit for existing bikes.



Product lineup plans for 2010 have also been clarified with the VX-1 getting something of a makeover and two smaller models in the works. Like their larger sibling, the new runabouts will also have lithium batteries and be the electric equivalents of a 50 cc and 150 cc scooter.

Source: www.visforvoltage.org

NRGSpot: tripartite initiative for electric vehicle infrastructure

A project launched by electricity supplier Eneco, with Dutch start-up company Epyon Delft and electric scooter producer Qwic, NRGSpot is the name of the first two terminals set up under a new technique reloading of lithium batteries. So far, the wider use of electric scooters was hampered by an excessively long period of recharging batteries of up to 8 hours. The young company Epyon Delft was able to reduce that time to half an hour and a quarter of an hour.

The new technique reloading of lithium batteries is to use a charger controlled by computer. Aboard the scooter, a system that monitors the status of batteries communicates with the rapid charger to optimize reloading. The company has been presented the award for best innovation in the field of sustainable development and the environment by Kennisalliantie Zuid-Holland.

The NRGSpot system is part of a public ultra fast charging infrastructure for electric vehicles enabling clean transportation in cities across Europe. The network consists of a broad range of different charging stations which act together as an overall infrastructure. The plan is to eventually install an extended network of rechargers and scooters in other Dutch cities.



For more information, see: <http://www.epyon.nl/>; <http://en.eneco.be/>; <http://www.qwic.nl/>

Source: *Epyon Delft and LOGOS Public Affairs*

Green light from US Motorcycle Industry Council



We often hear debates about the merits of riding motorcycles and scooters for environmental reasons. Certainly, older bikes manufactured before emissions equipment were prevalent are significantly more polluting than most modern automobiles. On the other hand, motorcycles are nearly always more fuel efficient than their four-wheeled counterparts and new motorcycles are relatively clean in terms of emissions.

Ty van Hooydonk from the Motorcycle Industry Council (MIC) in the US had some input on the topic and highlights points such as the drastic reduction in raw material usage – including metals, plastics and engine fluids – and a major reduction in overall vehicle traffic.

These facts, coupled with the aforementioned low fuel consumption and greatly improved emissions controls make motorcycles, as Hooydonk calls them, "green machines." As Hooydonk says, motorcycling's green angle "is a message we're working harder to deliver out there."

Source: *Dealer Show*

UK launches £30m for electric vehicle charging points

British Transport Secretary Andrew Adonis has announced that the UK will spend £30 million to install plug-in vehicle charging stations. The charge points will be built in three to six "electric car cities and regions" across the UK. From these experiences the government hopes to lay the basis for a future national EV charging grid.

The plan is called *Plugged-In Places* and is accompanied by the creation of the Office for Low Emission Vehicles (OLEV). The OLEV is a new government office in charge of coordinating policy and funding for low-carbon projects throughout the country.

Overall, the Government is investing around £400m to encourage the development, manufacture and use of next generation ultra-low carbon vehicles. Further information on the scheme and the application form can be accessed at: <http://www.dft.gov.uk/olev>

Source: UK Department of Transport

AGENDA

- FIM Ride Green Eco Enduro 2009 – 11-13 December 2009
- World Biofuels Markets 15-17 March 2010
- First race of the FIM e-Power championship in Le Mans, 18 April 2010