

Fleet tests of UPM's wood-based diesel show great results at VTT

(UPM, Helsinki, 27.2.2014 at 14.00) – The first fleet tests of UPM's renewable diesel proved that UPM BioVerno works in cars just as well as any regular diesel. The fleet tests were conducted by the VTT Technical Research Centre of Finland. They were started in May last year and ran until early 2014.

The UPM BioVerno diesel fleet tests focused on investigating UPM's renewable diesel in terms of fuel functionality in engine and fuel consumption. The tests were conducted with a fuel blend including 20 per cent UPM BioVerno and 80 per cent fossil diesel. With this blend fuel consumption matched the consumption of fossil diesel.

"The fleet tests showed the same as the previous engine and vehicle tests – renewable diesel UPM BioVerno is working exactly like any regular diesel. The results were according to our expectations, because our renewable diesel echoes fossil diesel also in its chemical structure, unlike first generation biodiesels," says **Petri Kukkonen**, Vice President, UPM Biofuels.

Experienced test drivers from VTT drove new Volkswagen Golf 1.6 TDI cars, provided by the VV-Auto Group, and gathered data for analysis during an altogether 80,000-kilometre test drive with four cars. The study included measurements in the laboratory at the beginning of the test and after 20,000 kilometres' driving. The approximately 20,000-kilometre test drive length was chosen based on the fact that, in Finland, the average yearly distance driven with cars is 17,000 kilometres. Analysis work at VTT was headed by Principal Scientist **Juhani Laurikko**.

"We studied UPM BioVerno diesel in various conditions: summer and winter weathers as well as on city roads and longer drives. The length of the drives varied from a few kilometres to several hundreds of kilometres on the road, just like real life situations. The engines of the test cars were working excellently in all conditions during the full length of the fleet testing," says Laurikko.

Fleet testing of UPM BioVerno diesel will continue, together with VTT, using busses in the Helsinki metropolitan area in late 2014.

Innovative renewable diesel

UPM's renewable diesel, known as UPM BioVerno, is an innovation that will significantly reduce greenhouse gas emissions caused by traffic when compared with fossil fuels. This high quality biofuel is produced from residues of the forest industry, with no food materials being used. UPM BioVerno is an ideal fuel for all diesel-powered vehicles.

In 2012, UPM began the construction of the first biorefinery in the world producing wood-based renewable diesel. This refinery, located in Lappeenranta, Finland, will be completed in 2014. Its production capacity will be 100,000 tonnes equating to 120 million litres of renewable diesel a year. UPM is a forerunner in the production of advanced biofuels.

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Images:

<http://www.upm.com/EN/MEDIA/Media-Centre/Image-gallery/Products/Biofuels/Pages/default.aspx>

UPM

Through the renewing of the bio and forest industries, UPM is building a sustainable future across six business areas: UPM Biorefining, UPM Energy, UPM Raflatac, UPM Paper Asia, UPM Paper Europe and North America and UPM Plywood. Our products are made of renewable raw materials and are recyclable. We serve our customers worldwide. The group employs around 21,000 people and its annual sales are approximately € 10 billion. UPM shares are listed on NASDAQ OMX Helsinki. UPM – The Biofore Company – www.upm.com

UPM Biofuels

UPM plans to become a major player in high quality, advanced biofuels for transport. Biofuels are an essential part of the Biofore strategy. The innovative wood-based biofuels developed by the company and their production technologies are part of a sustainable future. UPM's biofuels are frontrunners in quality, usability and sustainability. They will significantly decrease greenhouse gas emissions compared to fossil fuels. www.upmbiofuels.com

VTT Technical Research Centre of Finland is a leading multi-technological applied research organisation in Northern Europe. VTT creates new technology and science-based innovations in cooperation with domestic and foreign partners. Every third Finnish technology innovation contains VTT expertise. VTT's turnover is € 320 million and its personnel totals 2,900. www.vtt.fi