

JOZI GOES *green*



An ethanol-powered bus is leading the charge to make Johannesburg and South Africa a greener place

In a first for South Africa, Johannesburg Metrobus, Scania and Silversands Ethanol implemented an Ethanol-powered bus trial, with benefits made possible by MiX Telematics.

The Scania Euro V-powered bus underwent a few modifications including bigger pistons, rings and injectors - an ethanol-powered engine consumes more fuel than a diesel powered mill therefore MiX Telematics found the solution with its ever-developing fleet management technology systems.

This unique system links directly to the on-board computer via the CANbus and allows for the monitoring of all aspects of the vehicle. In a partnership between Scania and MiX Telematics that was inceptioned in 2003, MiX Telematics has since supplied web-based vehicle and

fleet management systems to Scania.

The research and development linked to this partnership has also assisted Scania with contract management, allowing Scania to bill customers on a per-kilometre basis.

Soon companies will have to report on their carbon emissions and with this thought comes the possibilities that the MiX Telematics systems offer, from calculating fuel consumption, driving irregularities, weight discrepancies (the system links to the air suspension and ascertains when and where load weights change - limiting cargo theft and helping bus companies to ascertain where and when passenger loads are at the highest and lowest levels) as well as offering carbon emission values. This information is relayed in real-time and can even be retrieved on smart phone systems anywhere in the world.

The ethanol-powered bus consumes 80l/100km yet emits only 125g of CO₂ per kilometre, while the equivalent diesel powered bus would use about 48 litres of diesel per 100km but would produce approximately 1285g/km of CO₂.

When emission taxes eventually come into effect the savings offered to businesses by ethanol-powered vehicles will be huge. In addition to that, a correctly monitored and web-based MiX Telematics system will help maintain the best-suited driving styles and lower fuel consumption as well as decreasing wear and tear associated with heavy driving styles on any vehicle the system is fitted to.

"The use of ethanol has many benefits, the greatest of these being the reduction in carbon emissions. Ethanol is produced from sugar beet and the production of ethanol is creating job opportunities around the world," says John Anderson, OEM key account manager for MiX Telematics.

"According to research done in South Africa, for every bus that runs on ethanol fuel, two to three jobs are created in rural areas where it is most needed. So not only will fewer carbon emissions enter the atmosphere, but many unemployed South Africans may find themselves with a job," Anderson concluded. "It makes sense to go this route."



John Anderson, MIX Telematics, stands with the first ever ethanol-powered bus in SA

- Bruno Lupini