

Press information

Volvo, Vattenfall and SL in cooperation for tomorrow's public transport:

Electric hybrid buses with quick-charge facility demonstrated in Stockholm

Stockholm is set to demonstrate and evaluate how buses with electric power can contribute to better living conditions. This is part of ZeEUS, an EU project being conducted in six European countries. Starting this autumn, eight Volvo electric hybrid buses will enter regular operations in the city. The technology these buses use will offer significantly reduced energy consumption, lower exhaust emissions and less noise. Behind the demo project, which is co-financed by the EU, are Volvo Buses, SL (Stockholm Public Transport) and energy provider Vattenfall.

"A modern and extensive public transport system is essential in order to meet today's and tomorrow's environmental and sustainability targets. It is extremely gratifying that we now have the opportunity, as part of SL's regular operations, to try out the very latest technology for further reducing our already low environmental impact," says Christer G Wennerholm, Traffic Commissioner and First Vice President of Stockholm County Council Executive Committee.

As of this autumn and for two years ahead, eight Volvo electric hybrid buses will be put into regular operations on SL's Route 73, which goes through the heart of central Stockholm.

Quiet and emission-free driving.

The electric hybrid buses are equipped with an electric motor and a battery pack that is quick-charged at either end of the route. Charging takes about six minutes. With fully charged batteries the buses can cover seven of the route's eight or so kilometres on electricity, driving quietly and with absolutely no exhaust emissions. Compared with conventional diesel buses, the electric hybrids have 75 per cent lower fuel consumption and thus also a similar reduction in carbon dioxide emissions. Climate impact is reduced still further since the buses run on biodiesel. With electricity consumption included, the total energy saving is about 60 per cent.

EU project.

The Stockholm field test is part of an EU project entitled ZeEUS (Zero Emission Urban Bus System), which pools the expertise of more than 40 participating companies and organisations. The primary aim of ZeEUS is to test and evaluate how electrically powered buses in cities can help reduce air pollution, climate impact and noise. Apart



from Stockholm, ZeEUS involves a further seven European cities, including London, Barcelona and Bonn.

"Public transport based on electric hybrid buses is a cost-effective way of reducing several of the big city's environmental problems. The solutions we are now developing create the necessary preconditions for both more attractive forms of travel and also better living conditions in city centres, without requiring major investments in new infrastructure. Electric hybrid buses and full-electric buses are tomorrow's solution for urban public transport," says Håkan Agnevall, President Volvo Buses.

"Vattenfall wants to actively contribute to the transport sector's future solutions and our natural role is to provide electricity and charging services, as in this case. In this field test we want to showcase electrification's ability to improve energy usage efficiency and promote a cleaner environment," says Torbjörn Wahlborg, Senior Vice President Vattenfall Region Nordic.

Facts about the demo project in Stockholm

- Aims to demonstrate and evaluate electric hybrid buses in regular bus traffic.
- Involves a total of eight Volvo electric hybrid buses and two quick-charge stations.
- Takes place on Route 73 between Ropsten and Tomteboda/Karolinska.
- Operations start in autumn 2014. The EU project will last until the end of 2016, after which the aim is for the project to continue as part of regular commercial operations.

The main actors and participants in the project are SL, Volvo Buses, Vattenfall and Viktoria Swedish ICT. Additional partners are Siemens and Keolis.

Volvo: supplies and is responsible for the buses

Vattenfall: builds and is responsible for the charging stations at the two end stops

SL: Public Transport Authority and responsible for bus depot

Viktoria: research partner and responsible for evaluation

Partners:

Siemens: supplies the quick-charge stations

Keolis: Public Transport Operator, responsible for drivers

Facts about Volvo's electric hybrid bus and battery charging

The bus is equipped with an electric motor that is powered by lithium batteries. It also has a small diesel engine.



The bus is quick-charged at charging stations via an overhead power rail. Recharging takes about six minutes.

The bus can be driven about seven kilometres on electricity alone, covering the distance silently and entirely without exhaust emissions.

About ZeEUS

The ZeEUS project is coordinated by the International Association of Public Transport, UITP. ZeEUS is jointly funded by the European Commission within the 7th Research and Technological Development Framework Programme, Mobility & Transport Directorate General under grant agreement no. 605485. ZeEUS was launched by the European Commission within the framework of the European Green Vehicle and Smart Cities & Communities Initiatives. More information is available at www.zeeus.eu

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