ABB fast charging technology in UK-first for electric buses

April 25-2017, OppCharge ‘Opportunity charging’ infrastructure will enable eight fully electric Volvo buses to operate all day without interruption

ABB has won a contract to supply electric bus charging infrastructure for a fleet of Volvo electric buses that will be operated by Transdev Blazefield from 2018. ABB will supply three HVC 300P charging stations and an electricity substation for installation at a bus station serving Harrogate, a historic spa town in northern England.

The contract is significant as it is the first electric bus project in the UK that will use OppCharge for ‘opportunity charging’, where buses are charged while they wait at bus stops at the end of the line equipped with fast-charging infrastructure.

Alex Hornby CEO of Transdev Blazefield: “The fast chargers from ABB will play an important role in Transdev's long-term vision for Harrogate to become a low-emission bus town that adopts world-class electric bus technology. Ultimately, the vision is about reducing congestion, improving freedom of movement and creating a better environment across Harrogate and beyond.”

Charging will take only three to six minutes, eliminating the need to wait for long charging periods. The innovation is the latest technology that Transdev Blazefield has introduced to reduce emissions and improve other aspects of bus travel. As well as enabling zero emission public transport, opportunity charging allows the size of batteries on board the electric buses to be reduced. This reduces the overall weight of the buses and therefore improves energy efficiency of the bus network.

Daan Nap, Global Sales Director of Electric Bus Charging at ABB, said: “This contract builds on our recent successes in other countries and introduces the OppCharge interface in the UK, a development that will help to further accelerate the uptake of electric buses by allowing the same charging equipment to be used by different brands of buses.”

The buses will connect automatically to ABB’s HVC 300P chargers, which feature an overhead charging mast that charges via the buses’ on-board pantographs. A key advantage is that the HVC 300P units are compatible with the OppCharge interface, so will be compatible with other brands and models of electric buses that use opportunity charging.

For more information please contact:

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Because ABB has developed its fast-charging technology in partnership with leading vehicle manufacturers, it has been designed to meet future requirements for electric vehicles. This represents good value for money for operators as charging infrastructure will be flexible as their fleets evolve.

The project is the latest in ABB’s history of UK firsts for electric bus charging, which includes supply of the charging infrastructure for the first full electric buses in Coventry in 2011.

Martin Hale, marketing and sales manager for ABB’s electric vehicle charging infrastructure, said: “We are excited to introduce opportunity charging to the UK under this milestone contract. OppCharge saves weight on electric buses and improves energy efficiency by keeping the batteries topped up and allowing the vehicle manufacturer to reduce the battery size.”

About OppCharge

More information on OppCharge via www.oppcharge.org

About ABB

ABB (ABBN: SIX Swiss Ex) is a pioneering technology leader in electrification products, robotics and motion, industrial automation and power grids, serving customers in utilities, industry and transport & infrastructure globally. Continuing more than a 125-year history of innovation, ABB today is writing the future of industrial digitalization and driving the Energy and Fourth Industrial Revolutions. ABB operates in more than 100 countries with about 135,000 employees. www.abb.com

About ABB bus chargers

• Easy to integrate into existing bus lines (inverted pantograph enables use of a low-cost and low weight interface on roof of the bus)
• Modular design offering charging power of 150 kW, 300 kW, 450 kW or 600kW
• ABB’s proven suite of connectivity features enables maximum availability, high uptime and fast service response.
• Based on OppCharge and IEC 61851-23, the international standard for fast charging of electric vehicles ensuring the appropriate safety systems are in place, the electrical design is in accordance with regulations, and the systems architecture and working principle are supported by the wider automotive community in future.

About Volvo 7900 Electric

• All-electric two-axle 12-metre long city bus with low floor and three doors.
• 80% lower energy consumption than a corresponding diesel bus.
• Quiet, emission-free operation.
• Equipped with an electric motor and lithium ion batteries.
• The batteries can be charged at the end stops in three to six minutes.

*Recharging time depends on topography, load and climate conditions.