

SWARCO

# Smart Charging Solutions for the eBus sector



The Better Way. Every Day.





You run a busy Bus Depot and know what you want: reliability. You've switched or are switching from Diesel to Electric and need charging solutions with performance that exceeds the needs and demands of modern bus operations. You also need solutions that have been rigorously tested in the field, in the same way as your vehicles, because you can't afford for them to be off the road.



## Driven by the Power to **Connect**

You have a good handle on the technical detail and the solutions that are available, and want to consult with like-minded professionals, with no flannel, who understand your challenges, and have a track record to prove it.

We've been working with people like you from the very beginning. Our experience and reputation has been built from the ground up.

**So why should you be talking to us?**

## Sparking trust and performance

Our mission is to be the most trusted partner for infrastructure and aftermarket support in the e-Bus sector, keeping you and your fleet moving 24/7.

That's a bold statement and it gets bolder. We have a passion to deliver reliability in a world that demands certainty, but that is often untrusting of many new kids on the block.

- ▶ That's why we talk about our experience – we installed the first ever bus charging infrastructure in the UK, which has become the benchmark to which others aspire.
 

 ▶ It's why we talk about smarter people – because providing the technology alone isn't enough.
- ▶ That's why we talk about our smart technology – hardware and software solutions which have become the byword for supporting operational flexibility, reliability and performance.
 

 ▶ And it's why we speak to our financial resilience, and the support that comes from an innovation powerhouse in Europe, fully set on a journey to create a spark across the highways and byways of Britain.

We come from a business that can trace its roots back more than 50 years, and is the hallmark of quality, integrity and performance the world over.

So what's our service and what are we offering?



SWARCO's smart charging approach makes a smaller grid connection viable, thereby significantly reducing costs, and dynamic charging lowers monthly usage charges by managing peaks in the load with the requirements of the fleet. It also allows operators to take advantage of lower priced surplus energy on the grid by efficiently charging entire fleets overnight.

## eBus Smart Charging Solutions

Of course, we have to talk about products, and within our eBus Smart Charging concept we have everything you need in terms of hardware, with our infrastructure supporting DC charging of up to 600Kw+. Please contact us for technical specifications.

This includes:

- ▶ **Depot app** – to intelligently manage charging, with the ability to stack vehicles, prioritising the one with the lowest state of charge (SOC) as the next into the stack. This is especially useful on sites with restricted power. The system can be manually over-ridden if the depot manager has a need for a particular vehicle at a particular time.
 

 ▶ **eBus EV charging equipment** – giving fast and reliable charging performance for maximum uptime.
- ▶ **Fleet-Connect** – giving depot staff the ability to view, monitor and control which buses are on charge. An intelligent interface shows how long each bus has been connected, its state of charge, and allows buses to be appropriately assigned to drivers and routes. It also provides information on charger status and utilisation, with session data and headline statistics.
 

 ▶ **eBus AC and DC plug in solutions** – currently available from 22kW to 420kW output power
- ▶ **Pantograph charging solutions** – using the Oppcharge protocol pantograph charging will be available in powers 150kW to 500kW
 

 At SWARCO we believe in a continuous evolution that will see the future development of en route pantograph charging, high power charging hubs reducing the space required in depots, and smart cable management systems all designed to make the day-to-day operation of a bus depot easier and more reliable.

## But it's so much more than just the **technology**

- **It's about listening and understanding** – bringing smart people together and breaking into silos to bring clear thinking to challenging decisions.
- **It's about people** – our people are technically-minded and passionate about what they do, and the future of sustainable public transport.
- **It's about long-term, whole of life support** – we understand that a project isn't over once the equipment is installed; it doesn't actually end until 15 years later, once the system has proven itself in operation with maximum uptime and reliability.

## Long-term strategic thinking

While we are at the forefront of innovation, we know that your future success is only partly going to be judged on the equipment you install. The real winners will be those who seek to develop a coherent, long-term strategy that involves EV OEMs, charging point manufacturers, Town Planners, Highways and Government representatives, etc to the benefit of us all.

In the future, automated EV depots will be commonplace. Vehicles will be automatically charged where they stand. Limited space will




be optimised, and energy distributed to maximum efficiency and minimal cost. Pantographs will be fitted to most vehicles as a matter of course in preference to induction, and operators will share facilities where possible, with a network of depots strategically placed not only to serve the bus operators' needs, but also the needs of other vehicles.

We are all on a journey, and it's one where smart thinking and smart planning will be more important than Smart technology.



## Sustainable energy

SWARCO doesn't just talk sustainability. We act on it. There's no 'greenwashing' or lip service here.

-  The charging points we own and operate are powered by 100% renewable energy supply partners.
-  Our team of engineers and sales teams drive EV vans and cars, so we live and breathe what we promote.
-  And we evidence our commitment to the environment, by being a founding member of Trees for Life, supporting the charity in its rewilding of the Scottish Highlands through every new connection we make.



## Time to take **positive action**

We're leading the way with e-Bus solutions that are making a difference, for customers who are driven by the detail, who won't settle for anything less than the very best – the best technology, the best people, and the best long-term support. Climb onboard and see how we can make business simple and transparent, and demonstrate a wider value, to our world and environment.

**See how we're driven by the Power to Connect.**

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SWARCO is a growing international group providing the complete range of products, systems, services and solutions for road safety and intelligent traffic management.

With five decades of experience in the industry, the corporation supports the growing mobility needs of society with turnkey systems and solutions in road marking, urban and interurban traffic control, parking, public transport, infomobility and street lighting. Cooperative systems, I2V communication, electromobility, and integrated software solutions for the Smart City are the latest, future-oriented fields in the group's portfolio.

[www.swarco.com](http://www.swarco.com)

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