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Hitachi ABB Power Grids launches game-changing EV charging system for large-scale e-Mobility

Grid-eMotion™ Fleet is a full 'grid-to-plug' solution for large-scale public transport and commercial fleets, enabling operators to charge more with less

Hitachi ABB Power Grids today launches Grid-eMotion™ Fleet, a game-changing grid-to-plug EV charging system that delivers a step-change approach for public transport and commercial operators. The smart mobility solution enables operators to efficiently scale up their operations and is expected to contribute to sustainable society for millions living in urban areas.

The global technology leader has been pioneering EV charging solutions since 2013, where it first introduced innovative flash-charging eBus solutions in Geneva and Nantes. Through close collaboration with transport operators, Hitachi ABB Power Grids has identified a market need for a more holistic approach to large-scale charging. The launch of Grid-eMotion Fleet marks a game-changing shift from a charger-product based approach to a charging-system based approach, which helps to accelerate the future of smart mobility.

Hitachi ABB Power Grids is leveraging its world-class power systems capabilities together with Hitachi's advanced digital technologies and proven track record of innovation in smart cities and sustainable mobility. The newly formed joint venture is pioneering a broader range of clean solutions for the global mobility market.

"The Grid-eMotion Fleet launch is a game-changer for anyone managing public transport and commercial EV fleets," says Niklas Persson, Managing Director of the Grid Integration business unit at Hitachi ABB Power Grids. "Grid-eMotion Fleet delivers unprecedented scalability, space savings and operational efficiency. The solution will accelerate the global uptake of safe, sustainable and smart mobility, whilst contributing to cleaner air and an enhanced quality of life for today's generation and those to come."

About Grid-eMotion™ Fleet

The solution comes in standard containers that integrate the grid connection and charging systems all together.

Grid-eMotion Fleet uses DC technology and can connect to any type of power network, removing the complexities of integrating AC-DC chargers into a system. Compared to a conventional connection to the AC grid, the pioneering solution brings a 60 percent reduction in space required for large-scale EV fleet charging, whilst the depot cabling is reduced by 40 percent. The fast-to-install solution harnesses renewable energy through grid integration, smart mobility, digital energy management system and incorporates insights from data analytics.

Grid-eMotion Fleet leverages Hitachi ABB Power Grids' smart energy management solution e-mesh™ EMS to manage and enhance the complete charging infrastructure, calculate bus energy consumption and devise, plan and deliver effective services for passengers. Digital analysis monitors the battery life data, route data, traffic simulation and depot control to ensure that efficient power use, energy storage and overnight charging is optimized.

Globally, 80¹ percent of municipal bus fleets are forecast to be electric by 2040. With more than 400,000 eBuses already in service today, and the number expected to grow to 2.3 million eBuses by 2040, operators now need solutions that go beyond the charger to help them connect seamlessly to the grid to power their expanding EV fleets. Hitachi ABB Power Grids supports the UN's Sustainable Development Goals² (SDGs) and the launch of Grid-eMotion Fleet will contribute to furthering progress in respect of SDGs 7 and 11.

About Hitachi ABB Power Grids Ltd.

Hitachi ABB Power Grids is global technology leader with a combined heritage of almost 250 years, employing around 36,000 people in 90 countries. Headquartered in Switzerland, the business serves utility, industry and infrastructure customers across the value chain, and emerging areas like sustainable mobility, smart cities, energy storage and data centers. With a proven track record, global footprint and unparalleled installed base, Hitachi ABB Power Grids balances social, environmental and economic values. It is committed to powering good for a sustainable energy future, with pioneering and digital technologies, as the partner of choice for enabling a stronger, smarter and greener grid. <https://www.hitachiabb-powergrids.com>

Notes to Editor

¹Source: Electric Vehicle Outlook 2018, Bloomberg NEF, 2018

²Sustainable Development Goals <https://www.undp.org/content/undp/en/home/sustainable-development-goals.html>

Additional information about Grid-eMotion Fleet™

- This compact design clusters the entire e-mesh™ PowerStore™ charging system in one location which eases maintenance and saves space at parking slots. It requires a significantly shorter installation period compared to traditional installations. In addition, the thermally insulated enclosures are modular and therefore available in a wide range of ratings, capacities and layouts to comply with bespoke customer requirements and industry standards.
- The full system offering includes charging hardware, control software and a comprehensive service agreement that supports operators with an efficient, flexible, easy-to-use and intelligent system, providing the highest lifecycle value at the lowest risk.
- Grid-eMotion Fleet features the Hitachi ABB Power Grids' Digital Enterprise software platform to enable a smart connected infrastructure to deliver proven asset, power and workforce management optimization, already serving more than 500 million bus passengers from around the world. This digital architecture provides operators visibility across their entire value chain – the depot, terminals, fleet, assets and workforce – with an unprecedented single pane view featuring actionable insights to maximize availability and operational efficiency.

Information contained in this news release is current as of the date of the press announcement, but may be subject to change without prior notice.
