

Siemens to support zero-emission public transport in Ostrava with charging solution

- **Charging infrastructure to power 24 new electric buses for the Ostrava Transit Authority in Czech Republic**
- **Software to automatically adapt the charging processes to the bus schedules and to optimize energy consumption**
- **Operations are scheduled to start in mid-2022**

Siemens Smart Infrastructure will provide a charging solution for Dopravní podnik Ostrava (Ostrava Transit Authority), which will expand its fleet with 24 Solaris electric buses. The largest order for electric buses in the Czech Republic to date will include four Sicharge UC charging stations from Siemens. These high-power chargers provide an effective maximum of 400 kW each. Furthermore, Siemens will deliver 28 mobile chargers, electrical infrastructure as well as energy automation software.

“The use of electromobility in mass transportation is a fundamental step towards improving the air quality in the urban agglomeration. With our advanced digital technologies, we contribute to the economical and reliable operation of eBuses in Ostrava,” said Tomáš Hüner, head of Siemens Smart Infrastructure in the Czech Republic.

Siemens will install charging points for electric buses at the Hranečník terminal and in Valchařská Street in the center of Ostrava. One Sicharge UC fast charger with a top-down pantograph will be installed at Hranečník, and three Sicharge UC fast chargers, each in combination with a top-down pantograph, will be installed at Valchařská. These state-of-the-art chargers offer a maximum DC output of 500 A at up to 1000 V. Simatic S7 units control their reliable and optimized operation. All

charging points will be equipped with a surveillance camera system and will run on a self-service basis. They are expected to charge the first eBuses by next summer.

“The need for reliable, cost-efficient and zero-emission mass transportation in Ostrava is perhaps higher than in other Czech cities,” said Daniel Morys, general director and board chairman of Dopravní podnik Ostrava a.s. “Clean air is an essential indicator of the quality of life. Therefore, I believe that passengers will appreciate our efforts towards a cleaner Ostrava and support us in the further expansion of electromobility.”

A Siemens microgrid control application will also be deployed to measure and transmit charging data to the transport operator’s systems for energy management as well as operations planning. This will allow remote and automatic control of the charging process according to the bus schedules, and it will be possible to change the charging output depending on the energy available. Siemens will also supply one 800 kVA and two 1,250 kVA dry type medium-voltage transformers to connect the charging points to the grid as well as medium-voltage switchgear, including a Siemens GIS, type 8DJH.

28 mobile chargers, each with an output of 22.5 kW, will be used for charging overnight or in a service garage, thus balancing the output and maintaining the eBus fleet operation. The Siemens delivery also includes project management, construction and assembly work, commissioning as well as preventive and corrective maintenance.

About Sicharge UC charging stations

The modular Sicharge UC charging system is designed for all types of electric utility vehicles. It offers a charging output of up to 800 kW and is designed to comply with future charging and infrastructure demands. The system, which is upgradeable to the latest standards, optimizes electricity consumption and offers various connectivity options. The reliable, robust design of the technologies allows indoor and outdoor use.

One charging station can sequentially power up to five vehicles via charging dispensers; in addition to charging cables (plug-in system), top-down pantographs (OppCharge) or connection hoods for bottom-up pantographs can be used. A flexible combination of charging via cable connection and pantograph, for instance, optimizes costs and installation space.

Electric buses for Ostrava

Solaris Bus & Coach will supply a fleet of 24 electric buses to the Ostrava Transit Authority. The selected Solaris Urbino 12 models will have Solaris High Power batteries with a total capacity of 91.4 kWh. This capacity represents an optimal choice for frequent short charging, typical for the routes where the vehicles will be deployed. The electric buses will be supplied in the usual length of 12 meters; each can transport up to 80 passengers (sitting and standing). Thanks to gradual charging at terminal stations, the daily range of the new electric buses is up to 400 kilometers. With the high-performance charging technology used, charging during the day will not take longer than 10 minutes per bus.

This press release and press pictures are available at

<https://sie.ag/3msXySI>

For further information on Siemens Smart Infrastructure, please see

www.siemens.com/smartinfrastructure

For further information on Sicharge UC, please see

www.siemens.com/sichargeuc

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Siemens Smart Infrastructure (SI) is shaping the market for intelligent, adaptive infrastructure for today and the future. It addresses the pressing challenges of urbanization and climate change by connecting energy systems, buildings and industries. SI provides customers with a comprehensive end-to-end portfolio from a single source – with products, systems, solutions and services from the point of power generation all the way to consumption. With an increasingly digitalized ecosystem, it helps customers thrive and communities progress while contributing toward protecting the planet. SI creates environments that care. Siemens Smart Infrastructure has its global headquarters in Zug, Switzerland. As of September 30, 2020, the business had around 69,600 employees worldwide.

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. Active around the world, the company

focuses on intelligent infrastructure for buildings and distributed energy systems and on automation and digitalization in the process and manufacturing industries. Siemens brings together the digital and physical worlds to benefit customers and society. Through Mobility, a leading supplier of intelligent mobility solutions for rail and road transport, Siemens is helping to shape the world market for passenger and freight services. Via its majority stake in the publicly listed company Siemens Healthineers, Siemens is also a world-leading supplier of medical technology and digital health services. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power that has been listed on the stock exchange since September 28, 2020.

In fiscal 2020, which ended on September 30, 2020, the Siemens Group generated revenue of €57.1 billion and net income of €4.2 billion. As of September 30, 2020, the company had around 293,000 employees worldwide. Further information is available on the Internet at www.siemens.com.