SIEMENS

Developing the future of eFleet charging

Intelligent, efficient, reliable and future-proof



Stages of an exciting journey

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Your journey to successful electrification

Intelligent planning

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Building up a smart charging infrastructure





Embrace the transition together

Your journey to successful electrification



Electrifying your fleet can not only help reduce your carbon footprint and reduce energy consumption, but it also demonstrates your leadership in adopting technology that meets the demands of today and tomorrow. Your journey to a successful deployment of a sustainable and efficient operation of your electrified fleet starts here. Whether electrifying your bus, municipal, or commercial fleet, Siemens is here to help you easily deploy and manage your eFleet depot.

Bus fleets Municipal fleets Commercial fleets Construction and nining fleets Image: Construction of the state of the

Your journey to successful electrification



Charged with passion

Electrifying your fleet is exciting and at the same time can be a challenging journey. We at Siemens are committed to supporting you every step of the way to help you find the perfect solutions for your specific needs.



Intelligent planning

Every successful journey begins with thorough planning. Depot concept development, consultancy about grid connection and financial solutions, followed by customer specific simulations – and you are all set to go.



Depending on your electrification needs, we offer you the necessary hardware, whether you need AC or DC charging.

Depot grid connect

Siemens electrical equipment (make-ready), as well as our integration of photovoltaics or battery storage options, provide a proven, integrated offering for sustainable installations at your facility.



Digital solutions

Be sure that charging operations of your fleet will run smoothly and efficiently.

With us you get a dedicated digital solution for whatever need you have during your electrification phase.



Connected services

With our cloud-based and comprehensive classical services, your fleets will be well cared for and available whenever you need them.

Intelligent planning of the electric infrastructure



Planning for your fleet electrification is critical to your success. Looking beyond the vehicle and considering the charging infrastructure, including power distribution requirements, will help you make the most cost-effective implementation decisions so you can best optimize your investment. Siemens planning experts can help you make the best decisions for your fleet charging infrastructure. They can help analyze site locations, power requirements, and find you the right charging solutions to optimize your fleet operations.



Intelligent planning of the electric infrastructure

Build a reliable foundation with effective upfront planning

Analyzing and aligning all relevant parameters – such as route data of your fleet, available energy at the grid edge, existing IT infrastructure, physical space and boundary conditions, etc. requires support of a strong partner.

Siemens supports you in elaborating the most effective transition plan and the most reliable operational package.

Your benefits



Effective/easy and secure transition to an electrified depot

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Smart depot layout based on charging simulation of existing and new sites



Future-proof technology setup

Efficient, safe and reliable operation of your charging infrastructure



Optimized costs (CAPEX and OPEX)

Building up a smart charging infrastructure



Electrifying a depot is more than installing a charger.

Learn more about the depot ecosystem and how Siemens can ensure a smart infrastructure for your fleet.



Building up a smart charging infrastructure

The perfect hardware to charge your electric fleet

Both DC and AC charging can be deployed in a depot. Siemens has charging equipment to provide power to all types of electric vehicles; buses, trucks, heavy duty vehicles or electric cars.

Our SICHARGE UC portfolio, as well as our VersiCharge AC series porfolio, offers you both AC and/or DC charging options.



SICHARGE UC product family for DC charging* For public buses, trucks and heavy duty vehicles



VersiCharge AC series* For AC charging, whenever you need it

Your benefits

SICHARGE UC[™] product family for DC charging

Flexible and space saving with

- Plug-in wall or floor mounted dispensers
- Robust, durable design for outdoor usage
- Compatible with the Combined Charging System (CCS) type 1 charging standard
- Interoperability and future-proof
- 150 kW
- Sequential charging (up to 4 dispensers)
- Manufactured in USA

VersiCharge AC series™

Modular and flexible configuration

- Faster charging 40A or 48A / up to 11.5 kW
- Connects to one "child" charger by Wi-Fi within 20 feet line of sight
- Indoor and outdoor rated (NEMA 4/ IK 8)
- 20-ft cable with integrated cable management

Cloud-based services

• Easily manage your fleet with one of our many fleet management digital services

Depot grid connect

Robust and reliable – for all your needs

The electrification of your depot needs to be robust and have reliable grid access with transformers, medium-voltage switchgear, lowvoltage distribution and cabling. Siemens offers electrical equipment that has been in operation for over a hundred years.

The integration of photovoltaics for a direct renewable energy supply, as well as battery storage for buffering purposes and second life battery usage can help bring your depot electrification to the next level of sustainable energy supply. Siemens is the right partner with excellent consultancy and suitable solutions in our portfolio.





Smooth, reliable and efficient operation of your eFleet requires an intelligent management of the entire eco-system. Our digital solutions offer everything you need to manage your charging infrastructure.





Digital solutions for best-in-class efficiency

Efficient e-depots need a comprehensive approach to managing their operation and costs. Our **DepotFinity** cloud-based solutions offerings provide everything you need to operate, protect and maintain your charging infrastructure at the highest performance level and to ensure cost-effective scheduling of charging operations. Our DepotFinity solutions and ecosystem of partners allow you to easily manage your charging infrastructure, including remote diagnostics, detailed reporting, operational planning and scheduling with one, simple user interface.

Connect allows you to always stay informed with live monitoring of charging operations, reporting, automated notifications, remote resets, smart charging using advanced load management techniques and seamless integration of the charging management system when your operations use REST API interfaces.

Control offers you everything with Connect as well as the ability to easily integrate with microgrid controllers, reduce energy costs by moving charging schedules from on-peak electricity times to off-peak times, reduce grid connection by sharing power between chargers and over periods of time and use AI enabled adaptive optimization to ensure the charging schedule is optimal.



Your benefits

Transparent operations

- Fact based decisions
- Comprehensive statistics
- Real time tracking of KPIs

Efficient usage of grid connection

- Infrastructure protection
- Smart charging
- Load limitation

Reducing your energy costs

- Charging at load tariffs
- Dynamic scheduling
- Configurable strategy

Increased availability

- Monitoring of chargers and charging processes
- Event driven notifications

Smooth integration

- Existing and new depots
- Open interfaces
- Communication via OCPP

CONNECT

- Reporting and monitoring
 View dashboards of your system status
- Notifications and Remote Reset Stay informed about status and events

• Smart Charging

Control your chargers to manage the load



CONTROL

Robust energy optimization

Optimized charging based on vehicle/route scheduling, power constraints, energy prices

- Live monitoring of planned versus actual
- Adaptive optimization to deviations



Your first digital step in fleet electrification

Higher performance with the CONNECT package

Profit from lower costs and a comprehensive solution for operation, protection and maintenance of your charging infrastructure.



Reporting and Monitoring

View dashboards of your system status

- Historical reporting and statistics
- Troubleshooting and detailed views



Notifications and Remote Reset

Stay informed about status and events

- In-App and email event driven notifications
- Remote charger resets



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Smart Charging

Control your chargers to manage the load

- Assign control groups power constraints (hourly, daily and weekly basis)
- Control the charging in a group according to preset strategies, e.g. First-In-First-Out, First-In-Last-Out, or SPLIT



Your benefits

Transparent operations

- Stay informed at all times
- Understand your charging operations
- Track KPIs in real time

Reducing your energy costs

- Reduce power requirements
- Charge at low-cost hours
- Tailor charging strategy

Increased availability

- Monitor your charging operations
- Reduce maintenance with Remote

Reset

• Improve response time with event driven notification

Smooth integration

- Manage charging in existing and new depots
- Seamlessly integrate systems with API interfaces
- Ensure interoperability with OCPP communication

Embrace the transition together



Siemens offers PlugtoGrid[™], an end-to-end set of solutions for EV charging infrastructure. Easily connect your chargers to the grid with Siemens eMobility open protocol charging technology and electrical power distribution solutions, as well as flexible options like energy storage, renewable power integration, and managed cloud services. PlugtoGrid delivers what you need to succeed with your electrification transformation.



Embrace the transition together

PlugtoGrid™

Today, it's all about electrification and an all-electric future. Many companies have already embraced the transition or are in the process of embracing it. With our experience and expertise, you can be sure that your journey will also be as successful as you wish.

Should it be about comprehensive planning and simulation, providing the right hardware and managing your operations, we will be there on your side all along this exciting journey.



Nuremberg (Germany)

Our customer is a local German public transport company. Electric buses are key to reducing air and noise pollution in cities, and thus improving the quality of life.



STM Montreal (Canada)

Our customer in Montreal, Canada installed Offboard high-power charging in the city center of Montreal, which were the first 450 kW chargers installed in North America.



California (USA)

Logistics and truck rental company continues to electrify their fleet and opens up their sixth heavy-duty electric vehicle charging station with battery storage system in Southern California.

Intelligent planning of the electric infrastructure



Overview – central location to monitor status of the chargers



Depot Connect SMART CHARGING Power capacity protection through Load Shaving 2006 FIFO/FILO / SPLIT Load shaving flattens the strategies peaks to reduce power demands The max. power is and protect the infrastructure flexibly set by the user 1200 12:00 14:00 16.00 20.00 02:00 Timeslet 04.00 06.00 08.00 10.00 18.00 · Depot CONNECT allows the user to set power limits Without SMART CHARGING the charging operations are uncontrolled and start whenever buses are plugged. for charger groups and so conduct load shaving. This results in power peaks which are greater than the depot maximum power capacity.

Your journey to successful electrification

Charged with passion

Bus fleets



Electrified bus fleets need a mixture of overnight charging in the depots and on-street opportunity charging at stations distributed in the city.

Municipal fleets



Consisting of a combination of heavy and light-duty vehicles, a municipal fleet has varying needs in the very same depot – meaning AC and DC charging simultaneously.

Commercial fleets



Usually dealing with lastmile delivery, the light vehicles of a commercial fleet need both opportunity charging and overnight charging – the latter done in depots.

Construction and mining fleets



Many mining and construction vehicles are electrifying to improve workers health and safety, lower costs and GHG emissions, requiring flexible high-powered charging for harsh environments.

