

EMOBILITY FOR AIRPORTS

Electrifying Airport Transportation

usa.siemens.com/eMobility

As the demand for electric vehicles (EVs) continues to rise and airports push to reduce their carbon footprint through electrification of their fleets, the need for integrated EV charging systems along with the proper electrical infrastructure at airports has become essential. Airports that deploy smart charging technology in parking areas and depots are leading the adoption of these new technologies and meeting the needs of customers and employees. Siemens is helping airports to easily deploy and manage their EV charging systems, resulting in a reduction of energy consumption and an overall reduction in the total cost of ownership. Our innovative charging solutions that power the infrastructure along with planning and implementing secure grid connections are shaping the future of airport transportation and travel and enabling rapid EV adoption.



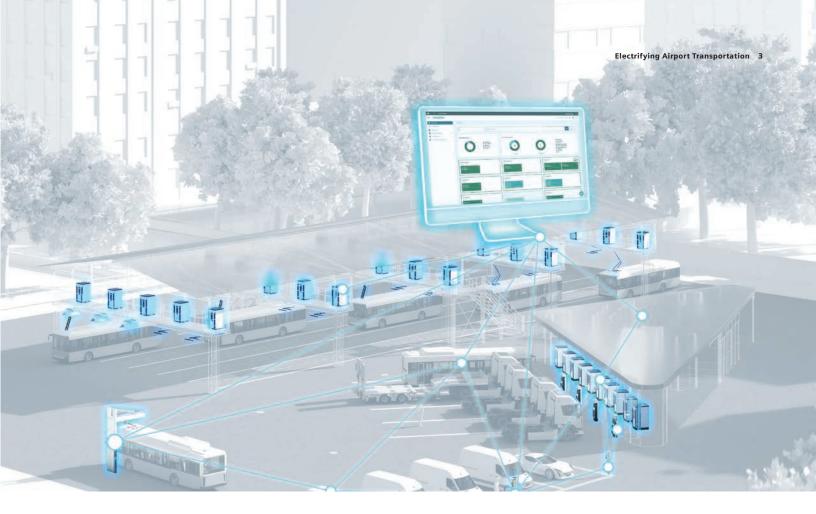


EV charging for all

Airports have a variety of applications that need to be considered when integrating EV charging into locations, such as customer/staff parking, shuttle/bus fleet depots, and rental car garages. Whether you are providing charging stations for customers or staff for their personal vehicles, for shuttles and buses that move people around the airport campus, or even for rental car companies for their rental EVs, there is no one-size-fits-all approach. When it comes to EVs and EV charging infrastructure, a calculation of how to balance capital expenditures, operating expenses, and all-around EV charging functionality will have to be made based on usage.

For example, customer and employee parking areas may only need Level 2 AC charging, while shuttles and buses may require faster, Level 3 DC charging solutions to maintain operations. And rental car centers or taxi centers where drivers just want to top off between trips may require a blend of both DC fast-charging solutions as well as Level 2 AC charging. Each application will have a unique need and a customized solution that best fits the usage requirements.





Power Capacity and Load Management

As the need to scale EV infrastructure at airports continues to grow, so does the need for airports to manage power output within existing infrastructure and potentially integrating new power equipment and energy sources (like energy storage) to manage load demand.

Siemens offers PlugtoGrid™, an end-to-end set of solutions for EV charging infrastructure. PlugtoGrid™ encompasses our Level 2 VersiCharge™ AC charger, our Level 3 VersiCharge Ultra™ DC fast chargers, our SICHARGE UC for heavy-duty vehicle charging, and electrical equipment and cloud-based services to support and manage EV chargers. These include:

- Secure billing
- Load management
- Control of the charging infrastructure to reduce costs
- Remote diagnostics
- A driver app to easily find chargers and much more

Siemens can help you connect your EV chargers to the grid with Siemens eMobility open protocol charging technology and smart electrical power distribution solutions. We also offer flexible options like energy storage, renewable power integration, microgrid solutions, or smart building solutions with our Desigo CC or advanced SCADA control system WinCC solutions that enable airport buildings to be smart, digital, agile, and flexible to help reach optimal sustainability and energy reduction goals.



eMobility[®] solutions



VersiCharge AC™ series

- Level 2 AC charging Up to 11.5 kW
- Building management system integration
- Flexible communication connections
- Open payment options
- OCPP integration
- NEMA 4 outdoor/indoor rating
- Charges all standard EV models
- · Cost efficient
- VersiCharge AC Blue™ Buy American compliant



VersiCharge Ultra™

- Level 3 DC fast charging
- 175 kW DC power
- Both CCS and CHAdeMO plug connections
- Easy installation
- OCPP integration
- Built-in credit card reader option
- Can be custom wrapped
- Simple cable management



Cloud-based services

- Remote diagnostics
- Load management and control
- · Detailed reporting
- · Managed billing
- Firmware updates
- Commissioning
- Drive app
- RFID management



SICHARGE UC™

- Fast, secure charging 150 kW of power
- · Design flexibility
- Sleek, compact plug-in dispensers
- Sequential charging with up to 4 dispensers
- Compatible with the Combined Charging System (CCS) charging standard and OCPP compliant
- Interoperability and future-proof up to 950 V
- Manufactured in America



Electrical equipment

- Panel boards
- Load centers
- Meters
- Breakers
- · Safety switches
- Transformers
- Switchgear



Asset services

- Preventative maintenance
- Start up and commissioning
- · Energy, markets, and business consulting
- Turnkey solutions
- Structured finance



Funding

Today, there are a variety of financial incentives available both from state and federal funding programs to support transportation carbon reduction efforts. Siemens can help navigate through these programs and provide a letter of support when filing for federal and local grant funding. In addition, Siemens offers financing options to help you reach your budgetary goals.



Revenue opportunities and competitive edge

EV charging stations can be a great source of revenue. People coming to airports are always looking for parking. Travelers using parking garages or valet services, ride-sharing companies waiting to pick up passengers, and employees parking their electrical vehicles are all opportunities to generate revenue from EV charging. Parking spaces and parking garages where electric vehicle service equipment (EVSE) can be installed can offer pay-to-charge options. Siemens has a selection of both AC and DC chargers with various payment and billing possibilities —from QR codes, RFID, and credit card readers. EVSE can be managed through systems such as Siemens cloud-based services or through a building management system which can be integrated with Siemens EV chargers.



Electrifying your buses, shuttles, and other transit vehicles

Electrifying buses, shuttles, and other vehicles that may be part of an airport transportation fleet can greatly reduce overall carbon emissions as well as reduce the total cost of fleet ownership. Siemens can help hub operations with a holistic transportation electrification strategy to guide decision-making for airport fleets today and tomorrow. Siemens is working with airports to help answer critical questions like what chargers best fit specific needs, how many chargers are optimal, and what power grid connections are required as well as how to best manage your airport electrified fleet operations.



Siemens offers a variety of plug-in options—from our VersiCharge AC chargers with 11.5 kW of power to our 175 kW of DC fast charging, as well as our SICHARGE UC heavy-duty fleet charging solutions to help you keep your airport transit vehicles always operating.





Electrifying airport transportation

Whether deploying a few charging stations, designing complex charging solutions, or transitioning an entire fleet with existing infrastructure, Siemens is here to support your goals. With our longstanding experience in designing and deploying technology and software solutions at airports worldwide, you will soon be charging your electrified airport transportation.

For additional information on other solutions for airports, please visit <u>usa.siemens.com/aviation</u>



Legal Manufacturer

Siemens Industry, Inc. 3617 Parkway Ln. Peachtree Corners, GA 30092 United States of America

Telephone: +1 (800) 333-7421 for general questions; (855) 950-6339 or www.usa.siemens.com/createcase for service.

Article No. SIE-B40013-00-4AUS © 11.2022 by Siemens Industry, Inc.

This document contains a general description of available technical options only and its effectiveness will be subject to specific variables, including field conditions and project parameters. Siemens does not make representations, warranties, or assurances as to the accuracy or completeness of the content contained herein. Siemens reserves the right to modify the technology and product specifications in its sole discretion without advance notice.

