

EMOBILITY AND SMART BUILDINGS

Intelligent and integrated **EV charging solutions**

usa.siemens.com/emobility





Your home is smart. Your business is smart. Your building is smart. So, why should your EV charging infrastructure be any different? It doesn't. As the demand for electric vehicles continues to increase, so does the need for intelligent and integrated EV charging infrastructure.

Whether you are beginning your eMobility journey at one location or rolling out an enterprise infrastructure solution, there are a few things to consider to enable easy deployment, management, and providing a lower cost of ownership for your EV charging systems. A successful EV charging journey begins with understanding the following:

- What type of chargers do I need AC, DC or both?
- How will my building occupants use the chargers?
- How can I easily scale up the electrical infrastructure for future expansions?
- How can I avoid high energy costs?
- How do I manage these chargers?
- Do I need a separate management system, or can I add them to my existing building management system?
- How do I charge employees or customers for usage?
- Does the EV supplier have a comprehensive set of support services?
- Can I obtain the entire PlugtoGrid[™] EV offering from one company?

Siemens is here to help guide you through all these challenges to ensure your buildings investment meets todays and tomorrows EV charging requirements.

Make electric vehicle charging easy

When planning and installing charging infrastructure, we offer the entire EV PlugtoGrid[™] solution, covering integration to the power grid, the buildings electrical infrastructure and your building's IT/OT system with our EV charging technology. In addition, our Desigo[®] CC building management system, in combination with our cloud offerings, allows centralized access and energy management control, transparency of energy usage, and the ability to implement pay-to-charge scheduling if required. These basic features will enrich the EV experience of your building users while helping you manage energy costs.

Easy operation and management

Desigo CC and our cloud-based service offerings provide complete energy demand control for monitoring and management of your EV infrastructure, along with the HVAC, fire, security, power, and lighting systems in your building, and can automatically stop charging in the event of a fire alarm. These solutions can also turn down the amperage of the EV charger, or turn the charger off to avoid peak demand or high energy cost periods, thus minimizing electricity costs. In addition, they can adjust the amperage when there are more chargers in use than the buildings electrical equipment can support at any given time to ensure it does not exceed the main breaker load. This is a common challenge in buildings with older electrical infrastructure.

With its intuitive user interface, Desigo CC not only offers management and control, but provides reliable reports, trends, and alarms. These reports show usage patterns of the EV chargers to help you make any needed adjustments on billing costs for charger usage, or adjust times when the chargers need to be turned on or off to reduce electricity costs or limit charging access, like turning the chargers off during the weekends when employees are not working.

Desigo CC also provides RFID card management for your EV chargers. This feature controls charger access by allowing the chargers to be turned on with an RFID card. RFID management allows owners to provide free charging, limit access, or allocate costs to a specific employee or tenant.

Paving the way to billing and end-user convenience

If you plan on charging for the use of your EV chargers, Desigo CC in combination with our EV Cloud solutions, can help you manage "pay-to-charge" billing. Our packages offer you the option to do cost allocation on the amount of energy being used by the chargers, time-based charging, or it can help you manage variable pay-to-charge rate schedules based on day, week or special events.

Our cost allocation ability for locations with multiple tenants using the same EV chargers allows the owner to bill individuals for the exact amount of energy they use. If the EV chargers are in an open public space, then using our cloud-based "pay-to-charge" method, with the supplied QR code on the charger, allows access to the chargers by anyone. This pay-to-charge method is easily done by either scanning the QR code on the charger and following the payment instructions through the application, using a pre-setup RFID card, or calling a dedicated number to pay for usage of the charger. The smartphone App used by Siemens allows users to locate and reserve a charging station before arriving, be notified once their vehicle is fully charged or hit a dedicated charging limit, and provide feedback on the amount of energy they consumed with overall costs. Siemens offers multiple cloud-based solutions to help you manage user convenience and billing.



Our integrated eMobility portfolio



- A single user interface for all building equipment – from eMobility infrastructure to HVAC, fire, security, energy, and lighting
- Centralized command and control status view and management of the charging stations at all times in Desigo CC
- Avoid extra power costs using Desigo CC features for peak shaving
- Optimized user convenience enable reserving a charging station or finding a fully charged company car on the campus for your next business trip via a mobile app
- Seamless authentication simplify registering at the charging point using a mobile app

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