Intelligent charging solutions for you and your customers.
# Table of contents

Reduce emissions, increase driving pleasure 3  
Electromobility supports your business 4  
The convenient way to charge up 5  
Know what moves your customers: your electricity 6  
Product overview 7  
innoenergy eOperate – IT backend services for efficient operation 8  
innoenergy eOperate – because you want more than just a charge 9  

Use cases  
Corporate fleets 10  
Employees with private vehicles 11  
Retail 12  
Hotel industry 13  

innoenergy eMobility Self-Service Portal 15  
ICON – Infrastructure CONtrol 16  
Load management 17  
Access management 18  

Proceeding with knowledge 19
Reduce emissions, increase driving pleasure.

Mobility is electric.

With every step on the accelerator, drivers are amazed by the dynamic but silent and smooth driving experience of an electric vehicle – emission-free.

These are just some reasons why the use of electric vehicles increased during the last years. The days of having very little choice when it comes to electrically driven cars are a thing of the past. There are one or even several attractive models available in each category of vehicle. The small cars are an everyday sight on the road that you are no doubt familiar with. Various manufacturers also produce vans, sports cars, family cars and totally new types of vehicles only made possible thanks to electric drive technology. You can drive whatever you want.

Our charging technology and our range of services ensure that you, both for your business and for your customers, have the appropriate charging solution.
Electromobility supports your business.

Charging while parking.

**Public**
Public charging possibilities allow electric vehicle drivers to extend the range of their EV, e.g. while travelling, or to charge up their EV even without a charge point at home. Interoperability and accessibility are the main factors to offer EV drivers who want to regularly charge in public access to electric fuel on the go and to establish a charging network.

**Retail**
Electromobile customers shop where they can charge their vehicle. Thus, a charging station directly contributes to customers’ loyalty. Innovative features of our charging infrastructure, such as charging vouchers, provide additional impetus to the customer relationship.

**Employees with private vehicles**
Beside company cars, employees’ private cars are more and more electrically driven. The parking time at the workplace can be used efficiently to charge up. Even employees without private charging possibilities can benefit from electromobility.

**Corporate fleets**
Whether travelling between business locations, to client meetings or for internal transports – fleets are increasingly enhanced by EVs. This not only reduces energy costs and CO₂ emissions, it also increases the reputation and image as a sustainable company.

**Hotel business**
A bed for the guests and a place to recharge their horsepower: a new way to guarantee customer loyalty. Customers are paying increasing attention to sustainable products and services. For EV drivers, the availability of charging opportunities is already a crucial criterion when choosing accommodation.
The convenient way to charge up.

Many ways lead to power.

**Corporate fleets**
Fleet vehicles must be charged smoothly and comfortably in everyday business. By using Plug&Charge, the intelligent charging cable already includes the user recognition and offers the fastest way to charge up.

**Retail**
Retail customers can be encouraged to return with the help of charging vouchers printed on purchase receipts. Loyalty cards can also be used to gain access to the charge points.

**Employees with private EVs**
Employees with EVs use the convenient smartphone app eCharge. Existing employee cards can be used by the RFID function. Additional support can be offered with the help of a display (optional).

**Public**
Access to a broad charging network can also be provided by giving out charging contracts with a dedicated access code (contract-ID).

**RFID (card, employee ID, chip, etc.)**
Use new or existing RFID cards to activate.

**Smartphone app**
Start charging sessions via smartphone app eCharge. Contract-based or by direct payment.

**Voucher codes**
Voucher codes allow time-based charging. The activation is done by smartphone app.

**Plug&Charge**
Automatic user recognition: plug in – done.

**Web services**
Take over the control of the charge points.

**Display**
Start charging sessions easily via screen. Additional user guidance included.
**Know what moves your customers: your electricity.**

**Become the local centre of competence for electromobility.**

*We know your business*

Benefit from innogy’s experience as a Charge Point Operator (CPO) of the biggest charging station network in Germany.

All our charging solutions are tailored to the needs of a CPO and enable you to integrate the components in your business operations. As a CPO, innogy’s hardware and IT services give you everything you need to operate your network.

The cooperation partner model of innogy offers, in three easy parts: firstly, the ideal entry to electromobility, secondly, it helps you to expand your existing charging infrastructure network, and thirdly, you become a local centre of competence for electromobility.

**The innogy cooperation partner model for Charge Point Operators**

<table>
<thead>
<tr>
<th><strong>In public space</strong></th>
<th><strong>Where electromobility takes place</strong></th>
<th><strong>In private field</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INTELLIGENT CHARGING INFRASTRUCTURE</strong></td>
<td><strong>IT SERVICES FOR OPERATION</strong></td>
<td><strong>CHARGING SOLUTIONS FOR YOUR CUSTOMERS</strong></td>
</tr>
<tr>
<td>✓ Charging with power of up to 50 kW</td>
<td>✓ Power products for electric vehicles under your own name and for own account</td>
<td>✓ You are a competent contact person for electromobility for your customers</td>
</tr>
<tr>
<td>✓ Listing in navigation systems and apps</td>
<td>✓ Charging data for the billing process will be provided online</td>
<td>✓ Appropriate charging technology for private, commercial and industrial customers</td>
</tr>
<tr>
<td>✓ Barrier-free charging for all users</td>
<td>✓ Daily updated data can be used to review online the utilisation and occupation of your charging stations</td>
<td>✓ Get charging technology at more favourable terms</td>
</tr>
<tr>
<td>✓ Your power products on your charging stations</td>
<td>✓ Individual foliation in your own design</td>
<td></td>
</tr>
<tr>
<td></td>
<td>✓ Your power products on your charging stations</td>
<td></td>
</tr>
</tbody>
</table>
Efficient and clear – two product lines.

innogy eLine and innogy eLine smart.

<table>
<thead>
<tr>
<th></th>
<th>innogy eBox</th>
<th>innogy eBox cable</th>
<th>innogy eBox remote</th>
<th>innogy eStation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection to the innogy IT backend</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recording of charging data (who, when, where, how much?)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access control (Plug&amp;Charge, app)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access control via display</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access control via key switch</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Equipment option RFID reader</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Power output (max.) in kW</td>
<td>11</td>
<td>3.7(^1)</td>
<td>22</td>
<td>2x11</td>
</tr>
<tr>
<td>Charging time(^2) in minutes</td>
<td>120</td>
<td>320</td>
<td>60</td>
<td>120</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>innogy eBox smart</th>
<th>innogy eStation smart</th>
<th>innogy eStation smart touch</th>
<th>innogy eStation smart multi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connection to the innogy IT backend</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Recording of charging data (who, when, where, how much?)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access control (Plug&amp;Charge, app)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access control via display</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Access control via key switch</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Equipment option RFID reader</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Power output (max.) in kW</td>
<td>22</td>
<td>2x22</td>
<td>2x22</td>
<td>20/50</td>
</tr>
<tr>
<td>Charging time(^2) in minutes</td>
<td>60</td>
<td>60</td>
<td>60</td>
<td>60/30</td>
</tr>
</tbody>
</table>

\(^1\) For European countries (except Germany) also available as 7.2 kW version.
\(^2\) In relation to the maximum output power, an average battery capacity of 20 kWh and a corresponding charging unit in the vehicle.
Imagine your charging station as a smartphone.

innogy eOperate – IT backend services for efficient operation.

For the professional operation of charging infrastructure a smart charging station is the starting point for every business. But only the combination of a smart charging infrastructure with matching IT services will give the possibility to adapt the solution to individual requirements. Monitoring, access control and billing are just some of the possibilities that are offered by innogy eOperate.

CONNECT – “SIM card”
innogy eOperate connect connects charge points by mobile with an IT-Backend. This compound is a prerequisite for all IT services such as automatic software updates.

CONTROL – “operating system”
With innogy eOperate control you can control the basic functions of the charging station such as the access options to the charger.

UPGRADE – “apps”
With innogy eOperate you can conveniently upgrade, expand and tailor your eOperate solution. So you get exactly the services you need for the operation of the charging infrastructure.
innogy eOperate – because you want more than just charge.

Services for the operation of charging infrastructure.

CONNECT

✓ Basic connection to innogy IT system
With connect, you have a basic connection to a highly efficient IT system, which means you are always well informed about the current status of the charging infrastructure. So you enable low-cost company management.

✓ Detailed charge point information
Let drivers of electric vehicles know where the nearest public charge point is located and whether it is free or occupied.

✓ Software updates
Free and automated updates ensure compatibility with all current and future vehicles.

✓ innogy eMobility Self-Service Portal
Get access to the online-based user portal and obtain an overview of the charging activities of your users. Furthermore, you can benefit from the graphical analysis of the charging stations and user data.

CONTROL

✓ Activation management
Allow your users to activate their charging sessions via the app eCharge, Plug&Charge, RFID or your own hotline. Reservation is also possible.

✓ Allocation of energy consumption
Keep track of the usage of the charge points by means of individual charging data and allocate the consumption as and when required.

UPGRADE

✓ User identification
Get unique user identifications (contract-IDs) incl. password, which will be handed out to the driver. The driver uses the identification IDs for activating the charge point, e.g. by using the smartphone app eCharge.

✓ Charge time vouchers
Order individual vouchers that you can hand on to your customers in order to enable charging at the charging stations (sales campaigns, access for visitors, etc.).

✓ Charging infrastructure administration
Gain a detailed look at the charging infrastructure. The charging infrastructure administration ICON enables you to control and to configure each of the charge points on your own.

✓ Load management
With increasing numbers of charge points, loads must be controlled intelligently. With eLoadmanagement you can postpone and adjust charging capacities to the grid situation as required. You and your customers decide where, when and with which power rating can be charged.
Our recommendation for fleets.

A lot of customers add electric vehicles to their fleet and thus lower fuel consumption and CO₂ emissions. Furthermore, electromobility signalises progressiveness and sustainability of the company to customers and employees. Our products meet the high requirements of companies with regard to charging technology. Already today we provide charging data (who, when, where, how much?) for further processing in your systems. For access to the charging technology, customers can use either employee ID cards, smartphones or intelligent charging cables (Plug&Charge). Also entering odometer readings is possible via a display. In order to integrate electromobility smoothly into your fleets, we offer not only the charging infrastructure, but also concept development, planning, installation and the full-scale operation, including load management.

Services offered by innogy
Provision of charging data
- For further clearing/processing in the existing fleet management system

Authorisation management
- Manage permissions on your own
- Create charge point groups
- Create user groups

Load management
- Matching with the existing power capacity
- Option to coupling with self-generation

Load management
- Matching with the existing power capacity
- Option to coupling with self-generation

Complete our proposal by offering own services
Customer hotline 24/7 and remote maintenance
- Support during charging activation or the charging station fault acceptance and forwarding to the appropriate partner

Installation services
- Holistic project consultation
- Installation and commissioning of the charging station

Billing of charged energy
- Offer access to your charging network by giving out contracts with a dedicated access code (contract-ID).

Our recommendation for fleet customers:

innogy eStation smart touch
- 2 cars can be charged simultaneously
- Quick charge with 2x 22 kW alternation current (AC)
- Protection against vandalism due to robust design
- Connection to the innogy IT system via mobile communication
- User guidance and input via touchscreen
- Prepared for ISO 15118 – vehicle communication and Smart Grid
- Individual design possible
- Use of RFID cards possible
Workplace 2.0.
Our recommendation for companies.

Due to increasing diversity and attractiveness, more and more people are deciding to switch to fully or partially electrically driven vehicles. Charging at the workplace plays a key role. Especially in urban areas, where many users do not have private charging stations, the charging facilities at work are crucial factors.

Companies can signalise the progressiveness and sustainability to customers and employees with electromobility.

Existing employee IDs, smartphones and also the intelligent charging cables (Plug&Charge) can be used to access charge points. This solution gives employees and visitors the chance to charge their own vehicles in even less than one hour.

Our recommendation for the employee car park:

innogy eStation smart
✓ 2 cars can be charged simultaneously
✓ Quick charge with 2x 22 kW AC (AC)
✓ Protection against vandalism due to robust design
✓ Connection to the innogy IT system via mobile communication
✓ Prepared for ISO 15118 – vehicle communication and Smart Grid
✓ Individual design possible
✓ Use of RFID cards possible

Services offered by innogy

Charge time vouchers
✓ Guests can charge comfortably via vouchers. You or your customer decides who is allowed to charge where and for how long.

Authorisation management
✓ Manage permissions on your own
✓ Create charge point groups
✓ Create user groups

Load management
✓ Matching with the existing power capacity
✓ Option to coupling with self-generation

Complete our proposal by offering own services

Customer hotline 24/7 and remote maintenance
✓ Support during charging activation or the charging station fault acceptance and forwarding to the appropriate partner

Installation services
✓ Holistic project consultation
✓ Installation and commissioning of the charging station

Delivery and billing
✓ Complete operation incl. electricity supply and billing of all charging sessions
The shopping experience begins in the car park.

Our recommendation for the retail sector.

An equipped car park can play an active part towards achieving customer loyalty and boosting sales revenue.

Product ranges and prices alone are no longer seen as decision criterion number one – differentiation with additional services gives a crucial competitive edge.

Offering customers the chance to charge up their vehicles while using the car park clearly demonstrates the sustainable orientation of the company and maximises the amount of time they spend in the shop as well.

Our recommendation for the customer parking lot:

innogy eStation smart multi
- Quick charge with up to 50 kW
- Combination of AC and DC charge
- All three types of connectors at one charging station
- Protection against vandalism due to robust design
- Connection to the innogy IT system via mobile communication
- User guidance and input via touchscreen
- Individual design possible

Services offered by innogy
- Charge time vouchers
  - Guests can charge comfortably via vouchers. You or your customer decides who is allowed to charge where and for how long
- Analysis of charging data
  - Daily updated data can be used to review online the utilisation and occupancy of the charging station
- Matching on business operation
  - Avoidance of continuous use by automatic disconnection

Complete our proposal by offering own services
- Customer hotline 24/7 and remote maintenance
  - Support during charging activation or the charging station fault acceptance and forwarding to the appropriate partner
- Installation services
  - Holistic project consultation
  - Installation and commissioning of the charging station
- Delivery and billing
  - Complete operation incl. electricity supply and billing of all charging sessions

Electromobile customers shop where they are able to charge up.
Recharge your batteries.

Our recommendation for the hotel industry.

At the end of a hard day, hotel guests expect to be able to relax and recharge their batteries. By providing the opportunity to charge the batteries of their electric vehicles at the same time, hotels can offer an attractive differentiating factor.

Customers are paying increasing attention to sustainable products and services. Hotels can therefore add electromobility to the existing range of sustainability activities. For drivers of electric vehicles, the availability of charging opportunities is already a crucial criterion when choosing accommodation.

The charging process can be activated conveniently from the reception by using the innogy eBox remote. The attractive online user interface also enables customers to remotely control charging processes. Whether integrated in the room rate or offered as an optional service, similar to the use of Wi-Fi, guests will greatly appreciate this added value.

Our recommendation for the hotel industry:

- **innogy eBox remote**
  - Charge with up to 22 kW AC
  - Control your charging technology directly out of the lobby
  - Start, stop and monitor charging sessions online
  - Operating of multiple boxes out of one surface
  - Suitable for outdoor use due to IP54 protection

- **innogy Smart Home central control unit**
  - The control centre is connected via LAN to an existing Internet connection and communicates wirelessly with the innogy eBox remote

- **User interface**
  - All charging stations are displayed easily and clearly. The detailed charging status is transmitted.
innogy eMobility Self-Service Portal

Knowing what happens at the charging station.

Within the framework of innogy Operate you receive access to the eMobility Self-Service Portal. In this online user portal you can see and manage comfortably all the important information about your charging station usage.

Benefits of the user profile:
- ✓ Look at the consumption data of your charge points and user permissions.
- ✓ The charging data are available and selectable individually on call. Download your charging records at any time in CSV format.
- ✓ Take advantage of the consumption data as support for your billing to employees and customers as well as to authorities and others.

Define contract-ID adjustments:
- ✓ Reservation time
- ✓ Maximum amperage
- ✓ RFID assignment

Manage permissions and set permissions by groups:
- ✓ Manage
- ✓ Display
- ✓ Change
- ✓ Assign
ICON – Infrastructure CONtrol

Keep permanently connected to your charging infrastructure. ICON gives you the opportunity to control and manage your charging infrastructure on your own.

Configuring
Overstrain the configuration of your charge points and determine, for example, individual charge speeds.

Clearing
Unlock remotely also users without contract-ID (e.g. loss of the employee card).

Monitoring
Observe live the status of your charging infrastructure and with it, reduce your service and maintenance costs.

Interference notification via e-mail
If your charging infrastructure is not reachable for the IT system of innogy for more than 24 hours, an automatic error message via e-mail will be sent to you.

USER INTERFACE
ICON can be easily accessed via the Internet and therefore can be used immediately without complex installation. It provides clear control and detailed information about your charging infrastructure. This reduces your operating costs to a minimum.

Professional management of charging infrastructure.
Load management.

Optimise charging schedules in line with your overall energy management strategy.

With eLoadmanagement, innogy provides a sophisticated tool that allows you to optimise the overall charging schedule according to your energy management.

Fixed load distribution
A fixed capacity is assigned to each charge point. The system ensures that the sum of the charge point capacities does not exceed overall cluster capacity.

First come first served
Max. load level (upper level) for first EV (and following EVs). If remaining capacity is too low for upper level, at least lower level load is provided.

Renewables
Focus is on maximising the usage of renewable energy. Priority is on planned end (time).

Dynamic limits
Specified and fixed load limit (max. power). Remaining capacity is being prioritised on remaining EVs.

You can set all parameters that are important to define the rules of your charging service:

✓ Which EV will receive how much power during its charging process?
✓ Which EV will get priority?
✓ What is the overall strategy for the charging schedule?
✓ How can you adjust the load behaviour of the charging facility to your business needs?
✓ How can you minimise system usage fees (by avoiding load peaks)?
Access management.

Flexibly administrate access rights to your charging facilities.

The access management supports the administration and maintenance of user access rights for the charging infrastructure of the customer.

✓ Charge points can be combined in charge point groups (logical or local)
✓ Contract IDs can be combined in user groups

The allocation of contract-IDs to user groups will be done by innogy in advance, in accordance with the requirements of the customer.

Even complex authorisation structures for the activation of charge points can be transparently and easily managed.

The customer can define which group of users can charge electricity at which charge point:
✓ Allocation of charge point to charge point groups (e.g. charge point “parking space company cars”)
✓ Contract IDs can be combined in user groups
✓ Allocation of contract-IDs to user groups (e.g. user group “company car drivers”)
✓ User groups can be named individually
✓ Allocation of charge point groups to user groups (e.g. parking space company cars to company car drivers)
Proceeding with knowledge.

innogy, your partner in the field of electromobility.

**Complete solution**
In developing our charging technology, security, intuitive usability and high performance are always in focus. At an early stage, we recognised that a charging station without an IT system is like a mobile phone without a SIM card. Therefore, we provide both the technical construction as well as all components for the operation from one source.

**Intelligent and networked**
In Germany and Europe, innogy is one of the leading operators of charging infrastructure for electromobility. Thus, networking has the highest priority to avoid isolated applications.

**Know-how**
In 2014, energy for more than 17 million emission-free kilometres was charged Europe-wide in the innogy charging station system. More than double compared to 2013. About 4,000 intelligent charge points and 6,000 private charge options reflect the experience of innogy now in 26 countries.

**Independence**
Charging technology of innogy is combinable with all electricity suppliers and tariffs.

**Advanced**
innogy always fits the development of public charging infrastructure to the current development of the vehicles. Current issues, such as direct payment, but also future developments, such as the communication standard ISO 15118, are driven by innogy.

**Barrier-free**
All initiatives of innogy deal with the simple and barrier-free charging: safe charging technology, Plug&Charge, smartphone app eCharge, payment via PayPal and credit card, eRoaming with around 100 municipal utility partners.
Picture credits:

Title Building, man, sky, parking: Masterfile Page 3 Vehicles: Daimler, Volkswagen AG press photo; Axel Wierdemann, Christoph Busse, Yannick Brossard Page 5 innogy Imagedatabase Page 14 Hotel: Masterfile / Avenue Images Page 16 Man with laptop: Shutterstock.com Page 18 innogy Imagedatabase

Arrange a consultation now:
Service hotline: +49 (0) 800 88 88 8621
emobility@innogy.com

More information and detailed data sheets of the respective charging stations can be found via QR code or go to this address:
www.innogy.com/eMobility

innogy SE
Flamingoweg 1
44139 Dortmund
Emobility@innogy.com
www.innogy.com/emobility

1 Free hotline from a German landline.