



The 'recharge my car' data infrastructure: connection guide for charge point operators (CPOs)

1. Check whether the requirements are met

'Recharge my car' requires data that complies with the Open Charge Point Interface (OCPI). OCPI, a standardised open communication protocol for electric mobility, enables data exchange between various stakeholders in the charging infrastructure sector. The protocol has a modular structure, with individual functional areas represented in separate modules that can be implemented as needed and depending on the level of maturity. The following OCPI modules are relevant to 'recharge my car':

- *(coming soon)*

Data is exchanged via web services. REST is the architectural style used, and the data format is JSON. The following table provides an overview of the OCPI versions currently supported.

The CPO sends the data to 'recharge my car' via a push request. The following HTTP methods are provided for the required modules:

OCPI module	HTTP method
<i>(coming soon)</i>	

CPOs must set up the data services in accordance with the OCPI standard. We recommend using OCPI version 2.3.0 and the REST/json data format. The technical description of the interface is linked in the table below under 'Specification'.



Fundamentals

Specification

In principle, the data is transferred from the CPO to the 'recharge my car' infrastructure (data push). The OCPI standard provides for the regular push of location and tariff data (`PUT /tariffs` and `/locations`) as well as the real-time push of charging point availability (`PATCH /locations`). The character encoding of the transmitted data must be UTF-8.

2. Register an ID with the Swiss Federal Office of Energy (SFOE)

Users must request and register a party ID for the CPO before they can transmit data to 'recharge my car'. IDs can be registered at [Amend or apply for an ID](#) (de; English guide available [here](#)).

3. Conclude a cooperation agreement with the Swiss Federal Office of Energy (SFOE)

Cooperation agreements govern the exchange of data. To conclude an agreement, please contact the Mobility section of the SFOE: ich-tanke-strom@bfe.admin.ch.

4. Notify the planned data exchange

The following details are required prior to the initial data exchange:

- OCPI version used
- Contact person
- Date of planned implementation

5. Set up the data push for 'recharge my car'

The CPO implements the data push in the 'recharge my car' data infrastructure (<https://api.emobility-prod.prometheon.bfe.admin.ch>). This can be done as follows:

1. Transmit the initial token
The SFOE initially provides the CPO with a one-off token and the SFOE-`/versions`-endpoint. This token is used for initial authentication during registration.
2. Exchange credentials
The CPO initiates the handshake via `POST /ocpi/{version}/credentials` using the initial token. The new credentials and endpoints for both sides are then saved.
3. Test the connection
The parties verify together that the handshake was successful and the credentials were transmitted and stored correctly.
4. Test the data connection
The CPO sends test data to the SFOE via a push request:
 - for status changes



Examples for OCPI 2.3.0:

Location and tariff data should be transmitted in full at least once a day (`PUT /locations` and `PUT /tariffs`).

The status data is transmitted immediately when a charging point's status is updated (`PATCH /locations`). In addition, it is best if the status information is transmitted in full once an hour.

Status data can be processed in 'recharge my car' only if the corresponding locations already exist. New locations must therefore be submitted via `PUT /locations` before a status update takes place. Only then can the relevant status data be transmitted.

6. Acceptance

The SFOE checks whether the connection to 'recharge my car' has been established correctly and whether the data submitted meets expectations.

7. Option to request a subsidy

Implementing the data push may result in additional costs for the CPO. Subsidies can help to cover some of the costs. For more information on the application process, please contact the Mobility section of the Swiss Federal Office of Energy (SFOE): ich-tanke-strom@bfe.admin.ch.