



National Data Infrastructure for Electromobility (DIEMO): Instructions for connecting to DIEMO for the attention of charging point operators (CPOs)

1. Check whether requirements are met

DIEMO requires data that conforms to the "Open Interchange Protocol" (OICP). Of the OICP services, only the following two are relevant for DIEMO:

- eRoamingEvseData (push only → eRoamingPushEvseData)
- eRoamingEvseStatus (push only → eRoamingPushEvseStatus)

OICP version 2.3 is currently supported. The following table provides an overview of which versions of the services this includes:

Service	OICP 2.3
eRoamingEvseData	2.3
eRoamingEvseStatus	2.1

The data is transferred using web services. The supported communication protocol is REST/json. The following table provides an overview.

OICP version	REST/json
2.3	✓

Charging infrastructure operators (hereinafter CPOs) that are already connected to the Hsubject roaming network can push the same data to DIEMO that they already transmit to Hsubject, provided they use at least OICP 2.3.

CPOs that are not connected to Hsubject must set up the data services in accordance with the OICP standard. In this case, we recommend using OICP version 2.3 and the REST/json communication protocol. The technical description of the interface is linked in the next table under "REST API documentation". See also the code examples under 4.

Important basics:

	Specification	Release Notes	Code Snippets
OICP 2.3	Link	Link	Link

In principle, the data is transferred from the CPO to the DIEMO infrastructure (data push). The OICP standard provides for a regular push of static data on the one hand and a push of the availability of the charging points in real time on the other. The character encoding of the transmitted data must be UTF-8.



2. Conclusion of a cooperation agreement with the Swiss Federal Office of Energy (SFOE)

The exchange of data is governed by a cooperation agreement. To conclude this agreement, please contact Alois Freidhof (alois.freidhof@bfe.admin.ch).

3. Contacting the technically responsible office of the SFOE

Register the upcoming connection to DIEMO with the SFOE's Geoinformation service: geoinformation@bfe.admin.ch

We need the following information:

- OICP version used and, if applicable, data format (JSON)
- Contact person
- Date of planned implementation

4. Setting up the data push to DIEMO in the test environment

The CPO implements the data push in the DIEMO test environment. You will receive the URLs and access data when you contact the SFOE. Authentication is carried out using basic HTTPS authentication. The URL is CPO-specific and structured according to the following scheme:

```
/api/oicp/evsepush/{version}/operators/{operator_id}/{status-records|data-records}
```

{version}: Version of the individual service (eRoamingEvseData and eReamingEvseStatus) and not the OICP version.

Examples for OICP 2.3:

eRoamingEvseData v2.3:	<code>/api/oicp/evsepush/v23/operators/CHBFE/data-records</code>
eReamingEvseStatus v2.1:	<code>/api/oicp/evsepush/v21/operators/CHBFE/status-records</code>

The static data should be transmitted in full at least once a day (eRoamingPushEvseData, ActionType = fullLoad). All status information should also be sent immediately after the transmission of the static data (eRoamingPushEvseStatus, ActionType = fullLoad).

The dynamic data is transmitted immediately when the status of a charging point is updated (ActionType = update). In addition, it is optimal if the status information is transmitted in full once an hour (ActionType = fullLoad).

When pushing, the correct content type must always be included in the header. So either "Content-Type: application/xml" or "Content-Type: application/json".



5. Acceptance

The SFOE checks whether the connection to DIEMO has been made correctly and whether the data submitted meets expectations.

6. Setting up the data push to DIEMO in the productive environment

The CPO implements the data push in the productive environment of DIEMO. The

URL for the productive push is structured according to the following scheme:

```
/api/oicp/evsepush/{version}/operators/{operator_id}/{status-records|data-records}
```

{version}: Version of the individual service (eRoamingEvseData and eRoamingEvseStatus) and not the OICP version.

7. Possibility of claiming subsidy

The implementation of the data push can lead to expenses for the CPO. It is possible to recover some of the costs by submitting a subsidy application. To do so, please contact Alois Freidhof (alois.freidhof@bfe.admin.ch).