Bonneagar Iompair Éireann
Transport Infrastructure Ireland

DXP OCPI API User Guide

Version 1.0

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1. API version 1.0

The DXP API provides open access to electric vehicle (EV) charging infrastructure data collected and managed through the Transport Infrastructure Ireland (TII) Data Exchange Platform (DXP). The service enables authorised users, application developers, mobility service providers, researchers, and public bodies to access standardised and near real-time information relating to public EV charging infrastructure across Ireland. The API supports transparency and interoperability by making high-quality charging infrastructure data readily available through a consistent interface.

The API is a publication service provided by the TII DXP. The DXP acts as Ireland's central platform for collecting, validating, standardising, and managing EV charging infrastructure data submitted by Charge Point Operators (CPOs) or eMobility Service Providers (eMSP) using the Open Charge Point Interface (OCPI) protocol, version 2.2.1. The platform receives data from participating operators, performs validation and processing, and then makes the resulting information available through the DXP API. In this way, the API serves as the public access layer of the DXP, providing consumers with access to the latest available charging infrastructure information without requiring direct integration with individual CPOs .

The API provides access to static and dynamic EV charging infrastructure data published through the DXP. Available information includes:

- Charge point locations and identification details
- Electric Vehicle Supply Equipment (EVSE) information
- Connector types and technical characteristics
- Operational status and availability information
- Tariff and pricing information, where supplied by operators
- Charge Point Operator (CPO) details

The data is sourced from participating CPOs, along with their registration information from IDRO, and reflects the information currently held within the DXP. API responses are provided in JSON format and are based on data continuously updated through DXP ingestion processes, ensuring consumers have access to the most recent information available. The API is a live view of the latest charging infrastructure data available within the platform.

1.1 What is an API?

API stands for Application Programming Interface and is a piece of software which enables the use of existing systems for a 3rd Party.

1.2 How to use the API

By using https call, you can ask the service to return charging station data in JSON format.

2. Differences between DXP API and a full OCPI implementation

The API data format effectively mirrors the OCPI data structure with a small number of differences, as follows:

2.1 Omitted fields

- location.images, location.publish, location.published_allowed_to
- evse.party_id, evse.country_code, evse.images
- connector.party_id, connector.country_code, connector.images

2.2 Fields added

- cpo.idro_id
- cpo.legal_entity_name
- cpo.trading_name

2.3 Filtered data

Review Publishing Rules section for guidance on the requirements and rules that apply when publishing data through the OCPI API

3. DXP Static API

To return static information from the DXP use the following endpoint: dxp.tii.ie/ocpi/static

The properties will be returned in JSON format, as a list of location objects similar as it is defined in the OCPI specification. Differences to the protocol structure can be found in section 2.

3.1 Example Static Response JSON:


```
{"cpo": [
   {
    "idro_id": "IE-ABC",
    "legal_entity_name": "ABC Charging Ltd",
    "trading_name": "ABC Charging",
    "locations": [
     {
        "id": "3c486183-bc5c-4437-8f38-625ad4a76d85",
       "country_code":"IE",
      "party_id":"ABC",
      "name": "ABC Charging Stating",
      "address": "OConnel St",
      "city": Dublin",
      "postal_code": "D01 0000",
      "state": "",
      "country": "IRL",
      "coordinates": {
       "latitude": "53.349829",
       "longitude": "-6.2602513"
      },
```

```
"related_locations": [],
"parking_type": "ON_STREET",
"directions": [],
"operator": {
  "name": "ABC Charging",
  "website": "https://",
  "logo": null
},
"suboperator": {
  "name": " ABC Charging ",
  "website": "https://",
  "logo": null
},
"owner": {
  "name": " ABC Charging ",
  "website": "https://",
  "logo": null
},
"facilities": [],
"time_zone": "Europe/London",
"opening_times": {
  "twentyfourseven": true,
  "exceptional_openings": [],
  "exceptional_closings": []
},
"charging_when_closed": true,
"energy_mix": {
  "is_green_energy": false,
  "energy_sources": [],
  "environ_impact": [],
  "supplier_name": null,
  "energy_product_name": null
},
"last_updated": "2026-09-04T15:35:24Z",
"evses": [
  {
    "uid": "5e706222-f5c6-4382-a6b4-0960164482ff ",
    "evse_id": "IE*ABC*A100*1",
    "status": "OUTOFORDER",
    "status_schedule": [],
    "capabilities": [
      "CHARGING_PROFILE_CAPABLE",
      "CREDIT_CARD_PAYABLE",
      "DEBIT_CARD_PAYABLE",
      "REMOTE_START_STOP_CAPABLE",
      "RFID_READER",
      "TOKEN_GROUP_CAPABLE"
    ],
```

```
        "connectors": [
         {
          "id": "5e706222-f5c6-4382-a6b4-0960164482ff ",
          "standard": "IEC_62196_T2_COMBO",
          "format": "CABLE",
          "power_type": "DC",
          "max_voltage": 1000,
          "max_amperage": 150,
          "max_electric_power": 150000,
          "tariff_ids": [ "692c695781dc4d352dbd5cbb1e3b "],
          "terms_and_conditions": null,
          "last_updated": "2026-09-03T21:01:23Z"
         }
        ],
        "floor_level": null,
        "coordinates": null,
        "physical_reference": "The Spire",
        "directions": [],
        "parking_restrictions": [],
        "last_updated": "2026-09-03T21:01:23Z"
       }
      ]
     }
}
```


3.1.1 JSON Properties

Property	Object	Requirement	Description	Type
idro_id	cpo	Required	From TII registration form	CiString(10)
legal_entity_name	cpo	Required	From TII registration form	CiString(200)
trading_name	cpo	Required	From TII registration form	CiString(200)
id	location	Required	Uniquely identifies the location within the CPOs platform (and suboperator platforms). This field can never be changed, modified or renamed.	CiString(36)
country_code	location	Required	ISO-3166 alpha-2 country code of the country this party is operating in.	CiString(2)
party_id	location	Required	CPO, eMSP (or other role) ID of this party (following the ISO-15118 standard	CiString(3)
name	location	Optional	Display name of the location.	String(255)
address	location	Required	Street/block name and house number if available.	String(45)
city	location	Required	City or town.	String(45)

postal_code	location	Optional	Postal code of the location may only be omitted when the location has no postal code: in some countries charging locations at highways don't have postal codes.	String(10)
state	location	Optional	State or province of the location, only to be used when relevant.	String(20)
country	location	Required	ISO 3166-1 alpha-3 code for the country of this location. Where location.country = 'IRL'	String(3)
coordinates	location	Required	Coordinates of the location.	GeoLocation
related_locations	location	Zero or more	Geographical location of related points relevant to the user.	AdditionalGeoLocation
parking_type	location	Optional	The general type of parking at the charge point location.	ParkingType
directions	location	Zero or more	Human-readable directions on how to reach the location.	DisplayText
operator	location	Optional	Information of the operator. When not specified, the information retrieved from the Credentials module, selected by the country_code and party_id of this Location, should be used instead.	BusinessDetails
suboperator	location	Optional	Information of the suboperator if available.	BusinessDetails
owner	location	Optional	Information of the owner if available.	BusinessDetails
facilities	location	Zero or more	Optional list of facilities this charging location directly belongs to.	Facility
time_zone	location	Required	One of IANA tzdata's TZ-values representing the time zone of the location. Examples: "Europe/Oslo", "Europe/Zurich". (http://www.iana.org/time-zones)	String(255)
opening_times	location	Optional	The times when the EVSEs at the location can be accessed for charging.	Hours
charging_when_closed	location	Optional	Indicates if the EVSEs are still charging outside the opening hours of the location. E.g. when the parking garage closes its barriers overnight, is it allowed to charge till the next morning? Default: true	boolean
energy_mix	location	Optional	Details on the energy supplied at this location.	EnergyMix
last_updated	location	Required	Timestamp when this Location or one of its EVSEs or Connectors were last updated (or created).	DateTime
evses	location	Zero or more	List of EVSEs that belong to this Location.	EVSE
uid	EVSE	Required	Uniquely identifies the EVSE within the CPOs platform (and suboperator platforms). This field can never be	CiString(36)

			changed, modified or renamed. This is the 'technical' identification of the EVSE, not to be used as 'human readable' identification, use the field evse_id for that. This field is named uid instead of id, because id could be confused with evse_id which is an eMI3 defined field. Note that in order to fulfil both the requirement that an EVSE's uid be unique within a CPO's platform and the requirement that EVSEs are never deleted, a CPO will typically want to avoid using identifiers of the physical hardware for this uid property. If they do use such a physical identifier, they will find themselves breaking the uniqueness requirement for uid when the same physical EVSE is redeployed at another Location.	
evse_id	EVSE	Optional	Compliant with the following specification for EVSE ID from "eMI3 standard version V1.0" (http://emi3group.com/documents-links/) "Part 2: business objects." Optional because: if an evse_id is to be re-used in the real world, the evse_id can be removed from an EVSE object if the status is set to REMOVED.	CiString(48)
status	EVSE	Required	Indicates the current status of the EVSE.	Status* (Subject to a review with a change proposal being prepared)
status_schedule	EVSE	Zero or more	Indicates a planned status update of the EVSE.	StatusSchedule
capabilities	EVSE	Zero or more	List of functionalities that the EVSE is capable of.	Capability
floor_level	EVSE	Optional	Level on which the Charge Point is located (in garage buildings) in the locally displayed numbering scheme.	String(4)
coordinates	EVSE	Optional	Coordinates of the EVSE.	GeoLocation
physical_reference	EVSE	Optional	A number/string printed on the outside of the EVSE for visual identification.	String(16)
directions	EVSE	Zero or more	Multi-language human-readable directions when more detailed information on how to reach the EVSE from the Location is required.	DisplayText
parking_restrictions	EVSE	Zero or more	The restrictions that apply to the parking spot.	ParkingRestriction
last_updated	EVSE	Required	Timestamp when this EVSE or one of its Connectors was last updated (or created).	DateTime

connectors	EVSE	At least one	List of available connectors on the EVSE.	Connector
id	Connector	Required	Identifier of the Connector within the EVSE. Two Connectors may have the same id as long as they do not belong to the same EVSE object.	CiString(36)
standard	Connector	Required	The standard of the installed connector.	ConnectorType
format	Connector	Required	The format (socket/cable) of the installed connector.	ConnectorFormat
power_type	Connector	Required		PowerType
max_voltage	Connector	Required	Maximum voltage of the connector (line to neutral for AC_3_PHASE), in volt [V]. For example: DC Chargers might vary the voltage during charging when battery almost full.	int
max_amperage	Connector	Required	Maximum amperage of the connector, in ampere [A].	int
max_electric_power	Connector	Optional	Maximum electric power that can be delivered by this connector, in Watts (W). When the maximum electric power is lower than the calculated value from voltage and amperage, this value should be set. For example: A DC Charge Point which can delivers up to 920V and up to 400A can be limited to a maximum of 150kW (max_electric_power = 150000). Depending on the car, it may supply max voltage or current, but not both at the same time. For AC Charge Points, the number of phases used can also have influence on the maximum power.	int
terms_and_conditions	Connector	Optional	URL to the operator's terms and conditions.	URL
last_updated	Connector	Required	Timestamp when this Connector was last updated (or created).	DateTime
tariff_ids	Connector	Zero or more	Identifiers of the currently valid charging tariffs. Multiple tariffs are possible, but only one of each Tariff.type can be active at the same time. Tariffs with the same type are only allowed if they are not active at the same time: start_date_time and end_date_time period not overlapping. When preference-based smart charging is supported, one tariff for every possible ProfileType should be provided. These tell the user about the options they have at this Connector, and what the tariff is for every option. For a "free of charge" tariff, this field should be set and point to a defined "free of charge" tariff.	CiString(36)

4. DXP Dynamic API

To return dynamic information from the DXP use the following endpoint: **dxp.tii.ie/ocpi/dynamic**

The properties will be returned in JSON format, as a list of location and EVSEs objects and their statuses. Differences to the protocol structure can be found in section 4.

4.1 Example Dynamic Response JSON


```
{"cpo": [
   {
    "idro_id": "IE-ABC",
    "locations": [
     {
       "id": "81e29548-9d01-421f-8f43-1e23063a65c6",
        "country_code":"IE",
         "party_id":"ABC",
      "last_updated": "2026-09-04T15:47:57Z",
      "evses": [
       {
         "uid": " f63fdbb1-5452-48e6-aec4-54033ce5a5f1",
         "evse_id": "IE*ABC*E1234567",
         "status": "AVAILABLE",
         "status_schedule": [],
         "last_updated": "2026-09-03T21:00:58Z"
       },
       {
         "uid": "4618192b-185d-48d9-bf20-012f5d369a7e",
         "status": "AVAILABLE",
         "last_updated": "2026-09-04T14:12:14Z"
       },
       {
         "uid": "9b4d4d38-d974-4a32-9fe2-a7ca37ae6654",
         "status": "AVAILABLE",
         "last_updated": "2026-09-04T15:47:57Z"
       },
       {
         "uid": "7f241c70-ad25-49ab-9282-03cf44418d5c",
         "status": "AVAILABLE",
         "last_updated": "2026-09-03T21:00:58Z"
       }
      ]
     }
    ]
   }
}
```

4.1.1 JSON Properties

Property	Object	Requirement	Description	Type
idro_id	cpo	Required	From TII registration form	CiString(10)
id	location	Required	Uniquely identifies the location within the CPOs platform (and suboperator platforms). This field can never be changed, modified or renamed.	CiString(36)
country_code	location	Required	ISO-3166 alpha-2 country code of the country this party is operating in.	CiString(2)
party_id	location	Required	CPO, eMSP (or other role) ID of this party (following the ISO-15118 standard	CiString(3)
last_updated	location	Required	Timestamp when this Location or one of its EVSEs or Connectors were last updated (or created).	DateTime
evses	location	Zero or more	List of EVSEs that belong to this Location.	EVSE
uid	EVSE	Required	Uniquely identifies the EVSE within the CPOs platform (and suboperator platforms). This field can never be changed, modified or renamed. This is the 'technical' identification of the EVSE, not to be used as 'human readable' identification, use the field evse_id for that. This field is named uid instead of id, because id could be confused with evse_id which is an eMI3 defined field. Note that in order to fulfil both the requirement that an EVSE's uid be unique within a CPO's platform and the requirement that EVSEs are never deleted, a CPO will typically want to avoid using identifiers of the physical hardware for this uid property. If they do use such a physical identifier, they will find themselves breaking the uniqueness requirement for uid when the same physical EVSE is redeployed at another Location.	CiString(36)
status	EVSE	Required	Indicates the current status of the EVSE.	Status
last_updated	EVSE	Required	Timestamp when this EVSE or one of its Connectors was last updated (or created).	DateTime

5. DXP Tariff API

To return tariff information from the DXP use the following endpoint: dxp.tii.ie/ocpi/tariffs

The properties will be returned in JSON format, as a list of tariff objects similar as it is defined in the OCPI specification. Differences to the protocol structure can be found in section 2.

5.1 Example Tariff Response JSON:


```
{"cpo": [
   {
    "idro_id": "IE-ABC",
```

```
"tariffs": [
 {
  "id": "692c695781dc4d352dbd5cbb1e3b ",
  "country_code":"IE",
  "party_id":"ABC",

  "currency": "EUR",
  "type": null,
  "tariff_alt_text": [
   {
    "language": "en",
    "text": "ABC Electric"
   }
  ],
  "tariff_alt_url": null,
  "min_price": null,
  "max_price": null,
  "elements": [
   {
    "price_components": [
     {
      "type": "ENERGY",
      "price": 0.67,
      "vat": null,
      "step_size": 1
     }
    ],
    "restrictions": {
     "start_time": "00:00",
     "end_time": "23:59",
     "start_date": null,
     "end_date": null,
     "min_kwh": null,
     "max_kwh": null,
     "min_current": null,
     "max_current": null,
     "min_power": null,
     "max_power": null,
     "min_duration": 0,
     "max_duration": 86400,
     "day_of_week": [
      "MONDAY",
      "TUESDAY",
      "WEDNESDAY",
      "THURSDAY",
      "FRIDAY",
      "SATURDAY",
```

```
                "SUNDAY"
              ],
              "reservation": null
            }
          }
        ],
        "start_date_time": null,
        "end_date_time": null,
        "energy_mix": null,
        "last_updated": "2026-08-31T08:45:04Z"
      }
    ]
  }
}
```


5.1.1 JSON Properties

Property	Object	Requirement	Description	Type
idro_id	cpo	Required	From TII registration form	CiString(10)
id	Tariff	Required	Uniquely identifies the tariff within the CPO's platform (and suboperator platforms).	CiString(36)
country_code	Tariff	Required	ISO-3166 alpha-2 country code of the country this party is operating in.	CiString(2)
party_id	Tariff	Required	CPO, eMSP (or other role) ID of this party (following the ISO-15118 standard	CiString(3)
currency	Tariff	Required	ISO-4217 code of the currency of this tariff.	String(3)
type	Tariff	Optional	Defines the type of the tariff. This allows for distinction in case of given Charging Preferences. When omitted, this tariff is valid for all sessions. WHERE type='AD_HOC_PAYMENT'	TariffType
tariff_alt_text	Tariff	Zero or more	List of multi-language alternative tariff info texts.	DisplayText
tariff_alt_url	Tariff	Optional	URL to a web page that contains an explanation of the tariff information in human readable form.	URL
min_price	Tariff	Optional	When this field is set, a Charging Session with this tariff will at least cost this amount. This is different from a FLAT fee (Start Tariff, Transaction Fee), as a FLAT fee is a fixed amount that must be paid for any Charging Session. A minimum price indicates that when the cost of a Charging Session is lower than this amount, the cost of the Session will be equal to this amount. (Also see note below)	Price
max_price	Tariff	Optional	When this field is set, a Charging Session with this tariff will NOT cost more than this amount. (See note below)	Price
elements	Tariff	At least one	List of Tariff Elements.	TariffElement

start_date_time	Tariff	Optional	The time when this tariff becomes active, in UTC, time_zone field of the Location can be used to convert to local time. Typically used for a new tariff that is already given with the location, before it becomes active. (See note below)	DateTime
end_date_time	Tariff	Optional	The time after which this tariff is no longer valid, in UTC, time_zone field if the Location can be used to convert to local time. Typically used when this tariff is going to be replaced with a different tariff in the near future. (See note below)	DateTime
energy_mix	Tariff	Optional	Details on the energy supplied with this tariff.	EnergyMix
last_updated	Tariff	Required	Timestamp when this Tariff was last updated (or created).	DateTime

6. Publishing Rules

6.1 Business Rules

- Only locations where location.country = 'IRL' are eligible for publication.
- Only locations where location.publish = true are published. This aligns with the OCPI specification.
- Only tariffs where currency = 'EUR' are included in the published dataset. Consequently, locations without a valid tariff are not published.
- If a location contains only EVSEs with a status of REMOVED, the location is also excluded from the API response.
- The DXP includes functionality that allows TII to enable or disable publication at CPO level.

As a result, non-Irish locations, unpublished locations, locations with only removed EVSEs and locations associated only with non-EUR tariffs are intentionally excluded from the API.

In summary, data may not be published through the DXP Public API for one or more of the following reasons:

- It does not meet the publication criteria
- Publication has been intentionally disabled through TII publication controls

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