

ENTSOG Transparency Platform

API

User Manual

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Introduction

1. The ENTSOG Transparency Platform (TP) provides a comprehensive query mechanism through a REST API, allowing all published information to be extracted programmatically in multiple formats (JSON, XML, CSV, XLSX). The API is publicly available, ensuring transparent and consistent access to data across all users. The following document provides a short overview of the details of the API and how it can be used.

As the API is publicly accessible, usage restrictions apply to ensure fair access and platform stability. All queries are subject to a maximum execution time of 60 seconds. Users are expected to apply appropriate filters (such as date ranges, points, operators, and indicators) to avoid excessive load and prevent timeouts.

Best Practices for API Usage

To maintain reliable service performance and avoid unnecessary strain on system resources, all users are advised to follow the recommendations below:

1. Use smaller data windows

Request data in short, well-defined periods. Monthly ranges are strongly recommended instead of broad multi-month or multi-year queries.

2. Limit indicators per request

Avoid requesting large sets of indicators in one call. Split indicator groups into separate, smaller requests to keep processing time low.

3. Distribute high-volume requests

If multiple requests are required, schedule them at different times during the day. Avoid executing large batches simultaneously.

4. Apply precise filters

Use available filtering parameters (date range, operator, point, indicator, etc.) to narrow down the dataset. Unfiltered or broad queries significantly increase processing load.

5. Apply controlled retry logic

When handling failed or timed-out requests, implement reasonable back-off intervals. Do not send aggressive, rapid retries.

Any questions or comments are welcome by submitting a question through the Transparency Platform “Submit a Question” form - <https://transparency.entsog.eu/#/helps/submitform>.

Transparency Platform API

2.1. General Format of the API

The general format of the TP API is constructed as:

2. <https://transparency.entsog.eu/api/v1/<endpoint>>

where <https://transparency.entsog.eu/api/v1> is URL and “<endpoint>” is the API type. A full list of available APIs is outlined in section 2.2

Example:

- /operationaldatas → returns operational data (also accessible as /operationaldata). For consistency, use /operationaldatas.

Output formats:

- JSON (default)
- XML → append .xml
- CSV → append .csv
- XLSX → append .xlsx

Example call:

<https://transparency.entsog.eu/api/v1/operationaldatas.xml>

Returns operational data in XML format as shown below.

```
<xml>
  <meta>
    <item name="limit" value="100"/>
    <item name="offset" value="0"/>
    <item name="count" value="100"/>
    <item name="total" value="100"/>
    <item name="fields">
      <property>id</property>
      <property>dataSet</property>
      <property>indicator</property>
      <property>periodType</property>
      <property>periodFrom</property>
      <property>periodTo</property>
      <property>operatorKey</property>
      <property>tsoEicCode</property>
      <property>operatorLabel</property>
      <property>pointKey</property>
    </item>
  </meta>
</xml>
```

```

<property>pointLabel</property>
<property>tsoItemIdentifier</property>
<property>directionKey</property>
<property>unit</property>
<property>itemRemarks</property>
<property>generalRemarks</property>
<property>value</property>
<property>lastUpdateDateTime</property>
<property>isUnlimited</property>
<property>flowStatus</property>
<property>interruptionType</property>
<property>restorationInformation</property>
<property>capacityType</property>
<property>capacityBookingStatus</property>
<property>isCamRelevant</property>
<property>isNA</property>
<property>originalPeriodFrom</property> </item>
</meta>
<operationaldatas>
  <operationaldata>
    <item name="id" value="1Firm AvailabledayDE-TSO-0009UGS-00369exitkWh/d2007-09-302054-12-31"/>
    <item name="dataSet" value="1"/>
    <item name="indicator" value="Firm Available"/>
    <item name="periodType" value="day"/>
    ...
  </operationaldata>
  <operationaldata> ...
</operationaldata>
</operationaldatas>
</xml>

```

All properties in the <meta> section of the extract can be used as parameters to filter the data pulled using the API. These will be described in the next section. Those highlighted in yellow are the commonly used parameters for “operationaldatas”.

All the other API calls use the same principle as depicted above. For a complete parameter, and value, listing, please see the last chapter (3: Annex I) from this document.

Note: From the extract above, the “periodFrom” and “periodTo” from the extract are written as “from” and “to” respectively in the API call.

Important clarifications:

Default limit

If no limit parameter is provided, API calls return a maximum of 100 records by default.

To retrieve more records, use the limit parameter (e.g., limit=500).

To retrieve all available records, set limit=-1 (note: may cause performance issues or timeouts on

large datasets).

Example: <https://transparency.entsog.eu/api/v1/operationaldata.xml?limit=500>

Case sensitivity of parameter values

All parameter values are case-sensitive. Exact spelling and capitalization must be used, otherwise the query will return no results.

Example:

- indicator=Firm Booked → works
- indicator=Firm booked → no results

Users are advised to copy parameter values directly from referential endpoints (e.g., /indicators, /operatorPointDirections) or from previously exported data to avoid mismatches.

aggregatedData endpoint

The /aggregatedData endpoint requires mandatory parameters to return results. Calling the endpoint without filters will return no data. At minimum, specify:

- pointDirection
- from and to
- indicator
- periodType

Example:

<https://transparency.entsog.eu/api/v1/aggregatedData?pointDirection=FR-----FR-TSO-0003exitTransmissionCH-----&from=2020-08-01&to=2020-09-01&indicator=Physical%20Flow&periodType=day&timeZone=CET&limit=-1>

Timezone parameter

The timeZone parameter defines how the API interprets all input date parameters (periodFrom, periodTo, lastUpdateDate).

Examples:

- *periodFrom=2024-01-01&timeZone=CET* → 1 Jan 2024 00:00 CET
- *periodFrom=2024-01-01&timeZone=WET* → 1 Jan 2024 00:00 WET

If the selected timezone has no effect on the data (e.g., when the requested period covers full days and aligns across zones), the output may appear identical.

2.2. Complete list of APIs

Base URL: <https://transparency.entsog.eu/api/v1>

Category	API	What it contains
Point Data	Operational Datas * /operationalDatas	Nomination, Renominations, Allocations, Physical Flows, GCV, Wobbe Index, Capacities, Interruptions, and CMP CMA, Gas Quality (incl. Methane, Hydrogen, Oxygen Content)
	CMP Unsuccessful Requests /cmpUnsuccessfulRequests	CMP Unsuccessful requests
	CMP Unavailable Firm Capacities /cmpUnavailables	CMP Unavailable Firm Capacity
	CMP Auction Premiums /cmpAuctions	CMP Auction Premiums
	Interruptions /interruptions	Planned/unplanned Interruptions
Zone Data	Aggregated Data ** /aggregatedData	Aggregated nominations, allocations, physical flows (requires mandatory filters)
Tariff Data	Tariffs Simulations /tariffsSimulations.xml	Simulation of all the costs for flowing 1 GWh/day/year for each IP per product type and tariff period
	Tariffs /tariffsFulls.xml	Information about the various tariff types and components related to the tariffs
UMM Data	Urgent Market Messages Data /urgentMarketMessages	Urgent Market Messages
Referential Data	Connection Points /connectionPoints	Interconnection points <i>as visible on the Map. Please note that this only included the Main points and not the sub points. To download all points, the API for Operator Point Directions should be used.</i>
	Operators /operators	All operators connected to the transmission system
	Balancing Zones *** /balancingZones	European balancing zones, bzLabel search supports keywords; extended=true expands matches
	Operator Point Directions **** /operatorPointDirections	All the possible flow directions, being combination of an operator, a point, and a flow direction
	Interconnections /interconnections	All the interconnections between an exit system and an entry system
	Aggregate Interconnections /aggregateInterconnections	All the connections between transmission system operators and their respective balancing zones

Note: We advise you to use limitations on the API. For instance, the Zone Data needs to be limited since the normal call runs too long due to the aggregations done. If no restrictions are used, the API call will be halted due to a timeout as the maximum execution time for any API query is set to 60 seconds.

* Both *operationaldata* (singular) and *operationaldatas* (plural) are valid endpoints. They internally resolve to the same model (OperationalData). This is due to the singularization logic of the framework used (i.e., *singularize('operationaldatas') → operationaldata*). As a result, both endpoints return identical results. For consistency, users are advised to use the documented **operationaldatas** form.

Examples:

<https://transparency.entsog.eu/api/v1/operationaldata.xml>

<https://transparency.entsog.eu/api/v1/operationaldatas.xml>

** Requires mandatory parameters: *pointDirection*, *from*, *to*, *indicator*, *periodType* (see Section 2.1 box).

*** *bzLabel* performs a keyword search across *bzLabel*, *bzLabelLong*, *bzEicCode*, *bzManagerLabel*.
extended=true expands results to include zones connected through interconnections.

Example: <.../balancingZones.xml?bzLabel=eyn&extended=true>.

**** Use *hasData=1* to filter only operator-point-directions belonging to TSOs that publish REG715 information.

Example: <.../operatorpointdirections.xml?hasData=1>.

2.3. Parameters

As mention in Section 2.1, the result set can be filtered by any field passed as a parameter in the URL.

The character “?” separates the body of the API from the parameters.

For example, <https://transparency.entsog.eu/api/v1/operationaldatas.xml?indicator=Nomination> returns data for the Nomination indicator.

There is no limit to the number of parameters used. By using “&” as a separator for multiple parameters, the previous example can be extended;

<https://transparency.entsog.eu/api/v1/operationaldatas.xml?indicator=Nomination&operatorLabel=Fluxys> returns data for the Nomination indicator for Fluxys.

In some cases, multiple values for a single parameter are also allowed. In this case, a comma-separated listing should be used.

To extend the previous example even further,

<https://transparency.entsog.eu/api/v1/operationaldatas.xml?indicator=Nomination,Allocation&operatorLabel=Fluxys> returns data for the Nomination OR the Allocation indicator for Fluxys.

Restriction: “=” is the only operator allowed to filter data. Other operators such as “<” or “>” are not allowed

Important Notes:

- **Default limit:** If not specified, calls return a maximum of 100 records. Use *limit=500* or *limit=-1* to override (see Section 2.4.3).
- **Case sensitivity:** Parameter values are case-sensitive.
 - *indicator=Firm Booked* → works
 - *indicator=Firm booked* → returns no results
- **Indicator correction:** Use *Nomination* (singular). The plural *Nominations* will not return results.
- **Best practice:** Copy parameter values directly from referential endpoints (*/indicators*, */operatorPointDirections*) or from exported datasets to avoid mismatches.

2.4. Other parameters not listed in the API fields

2.4.1. Forcing the download

When using a browser, this parameter forces the API response to be downloaded as a file instead of being displayed in the browser.

Parameter	API	Possible values
forceDownload	?forceDownload= <i>value</i>	True, false

2.4.2. Selecting the time zone

This parameter converts all date filters (*from*, *to*, *periodFrom*, *periodTo*, *lastUpdateDate*) into the specified time zone.

Parameter	API	Possible values
timeZone	?timeZone= <i>value</i>	EST CET CEST WET ... https://en.wikipedia.org/wiki/List_of_time_zone_abbreviations

Clarification:

- Currently, **only WET produces correct and consistent time conversions.**
- Other values such as CET, CEST, EST are accepted but may not affect the output or may be ignored.
- If the selected time zone does not influence the dataset (e.g., when the requested period covers full days), the results may look identical.

Examples:

- `periodFrom=2024-01-01&timeZone=CET` → 1 Jan 2024 00:00 CET
- `periodFrom=2024-01-01&timeZone=WET` → 1 Jan 2024 00:00 WET

2.4.3. Limit

By default, all APIs limit the result set returned to 100 rows. But this can be overridden:

Parameter	API	Possible values
limit	?limit=value	-1: no limit 10 100 1000

Clarification:

- If **no limit** parameter is provided, the API automatically applies limit=100.
- To retrieve more rows, increase the value (e.g., limit=500).
- To retrieve all available records, use limit=-1 (⚠️ may cause performance issues or timeouts on large datasets).

Example:

<https://transparency.entsog.eu/api/v1/operationaldata.xml?limit=500>

Note on usage:

As the API is public, restrictions apply to ensure fair sharing of resources. A maximum execution time of **60 seconds** applies to all queries. Always use filters (e.g., dates, points, operators, indicators) to avoid timeouts and ensure successful results.

2.4.4. Indicators (Points)

Used in “operationalDatas” API

Parameter	API	Possible values
indicator <i>(transport data)</i>	?indicator=value,value,value,...	Actual interruption of interruptible capacity Allocation Firm Available Firm Booked Firm Interruption Planned - Interrupted Firm Interruption Unplanned - Interrupted Firm Technical Firm available Firm booked Firm technical GCV Interruptible Available Interruptible Booked Interruptible Interruption Actual – Interrupted Interruptible Interruption Planned - Interrupted Interruptible Total Nomination Physical Flow Planned interruption of firm capacity Renomination Unplanned interruption of firm capacity Wobbe Index Methane Content Hydrogen Content Oxygen Content
indicators <i>(CMP CMA)</i>		Available through Oversubscription Available through Surrender Available through UIOLI long-term Available through UIOLI short-term

Case sensitivity: All indicator values must match exactly, including capitalization.

Example call:

<https://transparency.entsog.eu/api/v1/operationaldatas.xml?indicator=Methane%20Content>

2.4.5. Indicators (Balancing Zones)

This works the same way as **2.4.4 Indicators (Points)**, except that it is used with the **/aggregatedData** API.

Parameter	API	Possible values
indicator <i>(transport data)</i>	?indicator=value,value,value,...	Allocation Nomination/Renomination Physical Flow

Mandatory filters for /aggregatedData:

The endpoint requires the following to return results:

pointDirection
from and to
indicator
periodType

Example:

<https://transparency.entsoq.eu/api/v1/aggregatedData?pointDirection=FR-----FR-TSO-0003exitTransmissionCH-----&from=2020-08-01&to=2020-09-01&indicator=Physical%20Flow&periodType=day&timeZone=CET&limit=-1>

2.4.6. Sorting

This parameter allows results to be sorted in ascending order, based on the specified API field.

Parameter	API	Possible values
sorting	?sorting= <i>value</i>	any API field

Using this will sort in ascending order, based on the API field selected.

Notes:

- Sorting is applied in **ascending order** by default.
- Only one field can be used at a time.
- Ensure that the chosen field exists in the dataset being queried; otherwise, the request may return unexpected results or empty output.

Example:

<https://transparency.entsoq.eu/api/v1/operationaldatas.xml?indicator=Nomination&from=2024-01-01&to=2024-01-31&sorting=periodTo>

2.4.7. Get only the TSO points

The *hasData* parameter filters **Operator Point Directions (OPDs)** so that only those belonging to TSOs that publish **REG715 information** are returned.

Parameter	API	Possible values
hasData	?hasData= <i>value</i>	1 (<i>true</i>) 0 (<i>false</i>)

“Flow directions” are synonymous for operator point directions.

It designates all the known combinations of interconnection points, operators, and flow directions. So, for instance, if operator A can take gas at point X, it means that there is an operator point direction “**Operator A / Point X / Entry**”.

If operator A takes its gas from operator B, then there should be a symmetrical operator point direction “**Operator B / Point X / Exit**”.

The list of all such combinations, which form the core of the Transparency Platform’s network model, can be accessed through the API Operator Point Directions:

<https://transparency.entsog.eu/api/v1/operatorpointdirections.xml>.

This list contains all known operator point directions, including the ones involving non-Transmission System operators; i.e. this list can contain also storage system operators, or LNG system operators, all of which do not in any way send data to ENTSOG’s Transparency Platform.

To filter the list only with those operator-point-directions which belong to a TSO, which itself is publishing REG715 information, the parameter **hasData** can be used by simply setting it to 1:

<https://transparency.entsog.eu/api/v1/operatorpointdirections.xml?hasData=1>

The parameter *hasData=1* ensures only OPDs belonging to **TSOs actively submitting data** are returned.

2.4.8. Not Applicable

When specified, the API can return not only actual data but also records where data is marked as **Not Applicable (N/A)**. These cases are typically exemptions under Regulation 715.

- In N/A cases, the **Value** field is empty.
- The reason for the exemption is provided in the **Specific Remarks** field.

Parameter	API	Possible values
includeExemptions	?includeExemptions= <i>value</i>	1 (<i>true</i>) 0 (<i>false</i>)
isNA	?isNA= <i>value</i>	1 (<i>true</i>) 0 (<i>false</i>)

Notes:

- **includeExemptions:**
 - 1 → returns populated data **plus** N/A instances.
 - 0 → returns only populated (non-exempted) data.

- **isNA:**
 - 1 → returns **only N/A records**.
 - 0 → returns only valid data.

Example:

<https://transparency.entsoq.eu/api/v1/operationaldatas.xml?indicator=Nomination&includeExemptions=1>

Annex I – Complete TP API CALL LIST

Base URL: <https://transparency.entsoq.eu/api/v1/operationalData>

Returns the list of operationalData document records

3.

Parameter	API	Possible values
allIndicatorsChecked	?allIndicatorsChecked=value	0 (<i>false</i>) 1 (<i>true</i>)
from	?from=value	YYYY-MM-DD (<i>timestamp</i>)
indicator	?indicator=value,value,value,..	<p>(Transport data)</p> <ul style="list-style-type: none"> Actual interruption of interruptible capacity Allocation Firm Available Firm Booked Firm Interruption Planned - Interrupted Firm Interruption Unplanned - Interrupted Firm Technical Firm available Firm booked Firm technical GCV Methane Content Hydrogen Content Oxygen Content Interruptible Available Interruptible Booked Interruptible Interruption Actual – Interrupted Interruptible Interruption Planned - Interrupted Interruptible Total Nominations Physical Flow Planned interruption of firm capacity Renomination Unplanned interruption of firm capacity Wobbe Index <p>(CMP CMA)</p> <ul style="list-style-type: none"> Available through Oversubscription Available through Surrender Available through UIOLI long-term Available through UIOLI short-term

limit	?limit= <i>value</i>	-1: no limit 10 100 1000
nonIndicatorsChecked	?nonIndicatorsChecked= <i>value</i>	0 (<i>false</i>) 1 (<i>true</i>)
periodType	?periodType= <i>value</i>	hour day
periodize	?periodize= <i>value</i>	0 (<i>false</i>) 1 (<i>true</i>)
pointDirection	?pointDirection= <i>value</i>	https://transparency.entsog.eu/api/v1/operatorpointdirections.xml Example: NO-TSO-0001ITP-00022exit%2CundefinedITP-00022entry UK-TSO-0001ITP-00022entry
timezone	?timezone=EST	EST CET CEST WET ... https://en.wikipedia.org/wiki/List_of_time_zone_abbreviations
to	?to= <i>value</i>	YYYY-MM-DD (<i>datestamp</i>)

Base URL: <https://transparency.entsog.eu/api/v1/connectionPoints>

Parameter	API	Possible values
extended	?extended= <i>value</i>	0 (<i>false</i>) 1 (<i>true</i>)
include	?include= <i>value</i>	0 (<i>false</i>) 1 (<i>true</i>)
isInterconnection	?isInterconnection= <i>value</i>	0 (<i>false</i>) 1 (<i>true</i>)
isPlanned	?isPlanned= <i>value</i>	0 (<i>false</i>) 1 (<i>true</i>)

limit	?limit=value	-1: no limit 10 100 1000
macropoint	?macropoint=value	...
pointKey	?pointKey=value	Returns the list of connection points records for recently viewed items by pointKey
pointLabel	?pointLabel=value	Returns the list of connection points records for search bar matching by pointLabel
pointType	?pointType=value	Aggregated Point - Final Consumers Distribution Point
virtualPointKey	?virtualPointKey=value	...