



SEMOpX Website Report API

SEMOpX
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1. Document Control Details

Revision History

Version	Date	Contributor	Summary of Changes / Reason
1.0	19th July 2018	SEMOpX	Version 1.0 public release
1.1	02nd August 2018	SEMOpX	Changes to section 3.4 - Query Parameters & 3.5 Web Service Response
1.2	28th September 2018	SEMOpX	Updated with production URL
1.3	11 March 2019	SEMOpX	Update section 3.4 to include PublishTime parameter. Updated examples section 4.
1.4	25 August 2022	SEMOpX	Updated links
1.5	9 March 2026	SEMOpX	Added ExcludeDelayedPublication parameter; added IST and Csv parameters for individual reports; expanded examples section with step-by-step queries

2. Introduction

This document describes the SEMOpx Website Report API and how the general public can utilise it for accessing Static Reports from the SEMOpx Website.

All reports available for download from the SEMOpx Website Report API are specified in the I-SEM Data Publication Guide.

3. Using the SEMOpx Website Report API

This section describes how the general public can use the SEMOpx Website Report API.

3.1 Background

The SEMOpx Website Report API is written as a web service and returns data in JSON format. The source data are provided to the website, and are subsequently offered via this API, in their native format, XML and CSV.

3.2 Authentication

The service doesn't require any authentication.

3.3 Invocation of the Web Service

The invocation of the SEMOpx Website Report API follows a two-step approach.

Step	Description	Call
1	Query Report List	https://reports.semopx.com/api/v1/documents/static-reports?Group=Market%20Data
1*	Query Parameters	The web services call described in Step 1 can be modified to include query parameters used to filter for a subset of Static Reports to be returned in the Report List. See Section 3.4 for available parameters.
2	Query for an individual report	https://reports.semopx.com/api/v1/documents/{_id} Where `'_id'` is the unique identifier returned in the Report List from the previous step.

Note: To download the actual report file (XML or CSV), use the `ResourceName` value with the documents endpoint:

`https://reports.semopx.com/documents/{ResourceName}`

3.4 SEMOpx Website Report API Query Parameters

The following table describes the possible query parameters that can be used to return a collection of Reports from the Report List.

Parameter	Description
<code>DPuG_ID</code>	The DPuG_ID of the report (e.g., <code>EA-001</code> , <code>BM-086</code>)
<code>ReportName</code>	The report name
<code>ResourceName</code>	The instance filename of a report
<code>Group</code>	The group to which the reports have been assigned to. Group must equal <code>Market Data</code>
<code>Date</code>	<p>Specifies the from/to date which is used to restrict the returned data. The value must be in <code>YYYY-MM-DD</code> format.</p> <p>In values of these parameters, you can use prefixes (less than, greater than, less than or equal, etc.):</p> <ul style="list-style-type: none"> <code><</code> means date before <code>></code> means date after <code><=</code> means date before or equal to <code>>=</code> means date after or equal to <p>Example 1: <code>`Date=>2018-02-08<=2018-04-12`</code> *That means that the output of the request will include the information about reports with Date between 2018-02-08 and 2018-04-12 (included).*</p> <p>Example 2: <code>`Date=2018-02-08`</code> *The result will include the information about reports at this date.*</p>

Parameter	Description
PublishTime	The same properties as the Date parameter will apply to the PublishTime parameter
page	The page number from the query result
page_size	The size of the page in output
sort_by	The field to be used to order by: DPuG_ID, ReportName, ResourceName, Date, PublishTime
order_by	Accepted values: ASC, DESC
ExcludeDelayedPublication	When set to 0, reports are returned immediately after publication without any delay. This is useful for retrieving prices as soon as they are available after each auction. Default behaviour (when not specified or set to 1) may include a publication delay.

All arguments are optional and there is no order dependency.

3.5 SEMOpx Website Report API Response Format

The web service returns data in JSON format. The Report List is organised into two sections: the pagination header and the data items.

Example Response

```
{
  "pagination": {
    "pageSize": 10,
    "currentPage": 1,
    "totalItems": 1457,
    "totalPages": 146,
    "sort_by": "Date",
    "order_by": "DESC"
  },
  "resourceBaseUri": "http://reports.semopx.com/documents",
  "items": [
    {
      "_id": "697a55ac9620d924276afbe6",
      "DPuG_ID": "EA-001",
      "ReportName": "Market Results",

```

```

    "Group": ["Market Data"],
    "Dynamic": true,
    "ResourceName": "MarketResult_SEM-IDA1_PWR-SEM-GB-
D+1_20260128173000_20260128180001.csv",
    "Date": "2026-01-29T17:30:00",
    "DateRetention": "2026-01-28",
    "PublishTime": "2026-01-28T18:00:01"
  }
]
}

```

Field Descriptions

#	Section Name	Description	Fields
1	Pagination	The initial section of the return message describing the volume of Reports available for download.	<p>pageSize: the maximum number of items for any page within the Report List Collection</p> <p>currentPage: the current page within the return message</p> <p>totalItems: the total number of individual reports available for download</p> <p>totalPages: the total number of Pages (each containing a number of items) from the Report List query</p> <p>sort_by: the field used for sorting (if specified)</p> <p>order_by: the sort order (ASC or DESC)</p>
2	Resource Base URI	The base URL for downloading report files.	resourceBaseUri: append the ResourceName to this URL to download the file
3	Data Items	The section of the return message that describes the individual reports available for download.	<p>_id: a unique system-generated identifier for the Report</p> <p>DPuG_ID: the report identifier from the I-SEM Data Publication Guide</p>

#	Section Name	Description	Fields
			<p>PublishTime: Date & Time the report was published to the website</p> <p>ReportName: this is the common name for the report</p> <p>Group: All SEMOpx reports are assigned to 'Market Data' category (returned as an array)</p> <p>Dynamic: Indicates using values 'true' or 'false' if the report is a Dynamic Report or just a static report</p> <p>ResourceName: this is the filename of the instance of this report</p> <p>Date: the applicable date for the report. For SEMOpx reports this is the Trade Date</p> <p>DateRetention: the data retention date for the report</p>

3.6 Query Parameters for Individual Reports

When querying for an individual report (Step 2), the following additional parameters can be used:

Parameter	Description
Csv	When set to 1, the report data will be returned in CSV format instead of the native XML format. Only applicable to XML-based reports.
IST	When set to 1, timestamps in the response will be converted to Irish Standard Time (IST) and additional fields (ISTDate , ISTAuctionDate , ISTPublishTime) will be included. When not specified, timestamps are returned in UTC format.

4. Appendix: SEMOpx Website Report API Request Examples

This section provides sample queries for members to reference. Each example includes a description of what the query retrieves.

4.1 Example 1: Get Latest Reports by Name

Description: This query returns the latest five documents which match the Report Name 'Intraday Market Results Trade' from the Group 'Market Data'.

URL:

```
https://reports.semopx.com/api/v1/documents/static-reports?Group=Market%20Data&ReportName=Intraday%20Market%20Results%20Trade&page_size=5
```

Parameters explained:

- `Group=Market%20Data` - Filter to Market Data reports only
- `ReportName=Intraday%20Market%20Results%20Trade` - Filter by report name
- `page_size=5` - Return only 5 results

4.2 Example 2: Query Reports with Multiple Filters

Description: This query retrieves ETS Bid File reports for a specific date range, sorted by publish time.

Parameters used:

- `DPuG_ID: EA-002`
- `ReportName: ETS Bid File`
- `ResourceName: BidFile_SEM-IDA1_PWR-SEM-GB`
- `Group: Market Data`
- `Date: >=2019-02-01<=2019-02-28`
- `page: 1`
- `page_size: 10`
- `sort_by: PublishTime`
- `order_by: ASC`

URL:

```
https://reports.semopx.com/api/v1/documents/static-reports?DPuG_ID=EA-002&ReportName=ETS%20Bid%20File&ResourceName=BidFile_SEM-IDA1_PWR-SEM-GB&Group=Market%20Data&Date=%3E=2019-02-01%3C=2019-02-28&page=1&page_size=10&sort_by=PublishTime&order_by=ASC
```

Note: Not all these parameters are required in order to query the same subset of data; in this particular example we could leave out the DPuG_ID, ReportName and Group arguments and still get the same result because of the most restricting ResourceName argument.

4.3 Example 3: Get Day-Ahead Market Prices with Real-Time Access

Description: This example demonstrates the three-step process for retrieving Day-Ahead Market prices immediately after each auction using the `ExcludeDelayedPublication` parameter.

Step 1: Request the Report List

Query the API to get a list of available Day-Ahead Market price reports (EA-001), sorted by date in descending order, with immediate access enabled:

URL:

```
https://reports.semopx.com/api/v1/documents/static-reports?DPuG_ID=EA-001&page_size=1000&order_by=DESC&ExcludeDelayedPublication=0&sort_by=Date
```

Parameters explained:

- `DPuG_ID=EA-001` - Filter to Day-Ahead Market Results reports
- `page_size=1000` - Return up to 1000 results
- `order_by=DESC` - Most recent reports first
- `sort_by=Date` - Sort by trade date
- `ExcludeDelayedPublication=0` - **Include reports immediately after publication** (no delay)

Response (partial):

```
{
  "pagination": {
    "pageSize": 1000,
    "currentPage": 1,
    "totalItems": 1460,
  }
}
```

```

    "totalPages": 2,
    "sort_by": "Date",
    "order_by": "DESC"
  },
  "resourceBaseUri": "http://reports.semopx.com/documents",
  "items": [
    {
      "_id": "697a55ac9620d924276afbe6",
      "DPuG_ID": "EA-001",
      "ReportName": "Market Results",
      "Group": ["Market Data"],
      "Dynamic": true,
      "ResourceName": "MarketResult_SEM-IDA1_PWR-SEM-GB-
D+1_20260128173000_20260128180001.csv",
      "Date": "2026-01-29T17:30:00",
      "DateRetention": "2026-01-28",
      "PublishTime": "2026-01-28T18:00:01"
    }
  ]
}

```

Step 2: Extract the Report ID

From the response above, extract the `_id` value for the specific report you want to retrieve:

```
_id: 697a55ac9620d924276afbe6
```

Step 3: Request the Report Data

Use the `_id` to retrieve the full report data:

URL:

```
https://reports.semopx.com/api/v1/documents/697a55ac9620d924276afbe6
```

This returns the complete report metadata and data in JSON format.

To download the actual file, use the `ResourceName` with the documents endpoint (or combine with `resourceBaseUri` from the response):

```
https://reports.semopx.com/documents/MarketResult_SEM-IDA1_PWR-SEM-GB-
D+1_20260128173000_20260128180001.csv
```

4.4 Example 4: Download a Specific Report

Description: After obtaining the `ResourceName` from a Report List query, use it to download the actual report file.

Step 1: From a previous query, you received:

```
{
  "_id": "5c533eab9620d9150e5ec764",
  "ResourceName": "BidFile_SEM-IDA1_PWR-SEM-GB-D+1_20190131173000_20190131173822.csv"
}
```

Step 2: Download the file using the `ResourceName`:

URL:

```
https://reports.semopx.com/documents/BidFile_SEM-IDA1_PWR-SEM-GB-D+1_20190131173000_20190131173822.csv
```

This returns the actual CSV file content.

4.5 Example 5: Get Report with Irish Standard Time

Description: This example shows how to retrieve a Market Results report with timestamps converted to Irish Standard Time.

URL:

```
https://reports.semopx.com/api/v1/documents/697a55ac9620d924276afbe6?IST=1
```

Parameters explained:

- `IST=1` - Convert timestamps to Irish Standard Time and include IST-specific fields

Response differences with `IST=1`:

- Timestamps are converted from UTC to Irish local time
- Additional fields are included: `ISTDate`, `ISTAuctionDate`, `ISTPublishTime`

Note: When `IST` parameter is not specified, all timestamps are returned in UTC format (e.g., `2026-01-28T17:30:00Z`).

Additional Resources

- [SEMOpX Data Publication Guide](#)
 - [SEMOpX Website](#)
-

Questions or Issues?

For technical support, please contact the SEMOpX team at info@semopx.com through the official support channels.