



MISO Data Exchange User Guide

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1. Introduction

MISO Data Exchange comprises APIs (Application Programming Interfaces) that enable users to access MISO market report data for use in their own applications. MISO has historically offered reports comprising analysis and status of market operations.

With the launch of the APIs in the MISO Data Exchange, users now have an endpoint from which to collect and consume data in the way that best serves them.

This guide is intended to provide an overview of how to access and begin using the MISO Data Exchange.

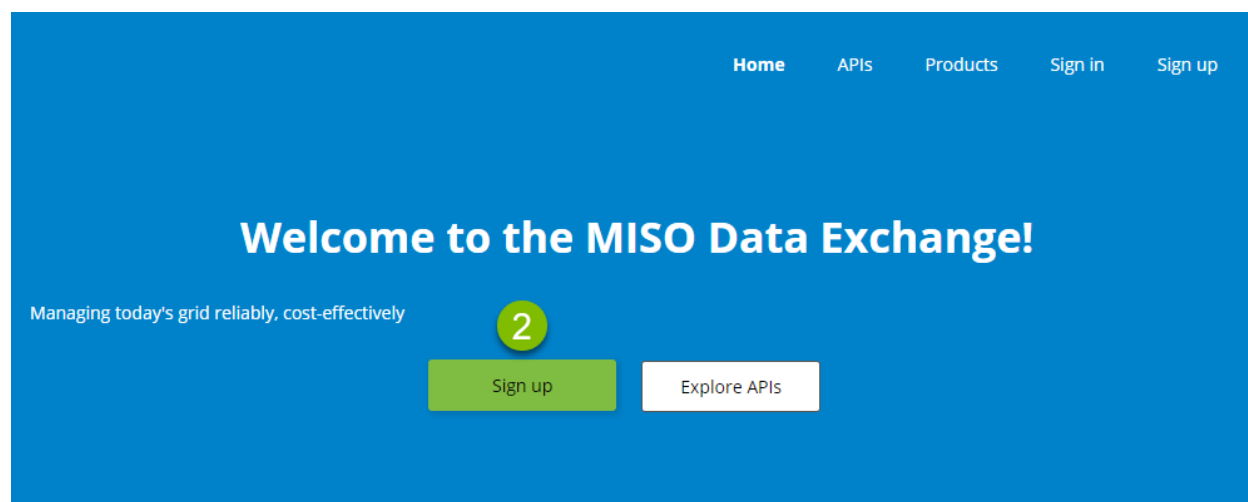
2. Requirements

- A **MISO website account** is required to create a Data Exchange account. If you do not have an account on the MISO website, refer to the steps in [this Knowledge Article](#) to create one.

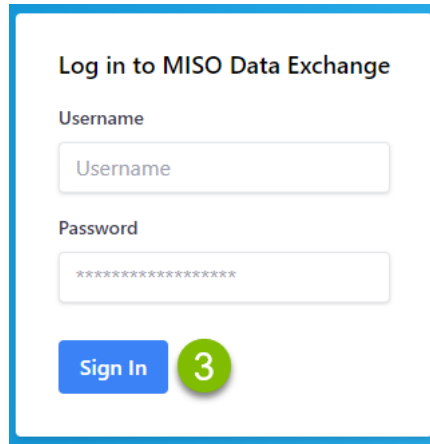
3. How to Access the Data Exchange

To access the Data Exchange, you must create an account on the Data Exchange site.

- 1) Navigate to <https://data-exchange.misoenergy.org>.
- 2) Click **Sign up**.



- 3) Enter the username and password associated with your MISO website account and click **Sign In**.

A login form titled "Log in to MISO Data Exchange". It contains two input fields: "Username" and "Password". The "Username" field has the placeholder text "Username". The "Password" field has a series of asterisks as a placeholder. Below the fields is a blue "Sign In" button. A green circle with the number "3" is positioned to the right of the "Sign In" button.

Log in to MISO Data Exchange

Username

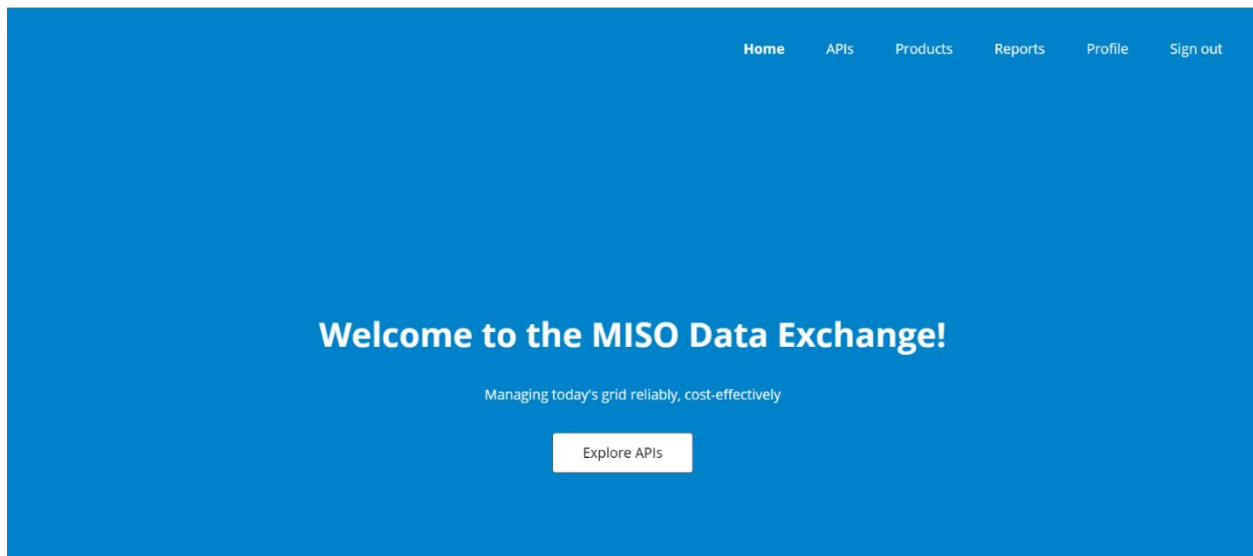
Username

Password

Sign In

3

- 4) This will authenticate you, create a linked account in APIM (MISO's Authentication Service) and log you in.



4. How to Locate the APIs

- 1) Click the **APIs** tab within the Data Exchange menu bar to view the list of APIs.
- 2) Click the **name** of an API.

1

Home

APIs

Products

Reports

Profile

Sign out

APIs

Search APIs

Group by tag

Name	Description	Type
2 Pricing API	This service provides access to the Energy and Ancillary Service prices in the Day-Ahead and Real-Time markets. Prices are published for both Ex-Ante and Ex-Post.	REST

3) Click an **operation** from the list on the left to view details.

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Search operations

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Group by tag

GET Retrieve Ancillary Services Mar...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

Pricing API

API definition

Changelog

This service provides access to the Energy and Ancillary Service prices in the Day-Ahead and Real-Time markets. Prices are published for both Ex-Ante and Ex-Post.

Ancillary Services Market

Day-ahead

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices. Prices are given in hourly intervals per Reserve Zone.

Try it

Request

GET `https://apim.misoenergy.org/pricing/v1/day-ahead/{date}/asm-exante`

Request parameters

Name	In	Required	Type	Description
date	template	true	string	Date for requested data

Response: 200 OK

Successful operation

4) The API page provides information including a description, request parameters, possible responses and their meanings, and definitions.

MISO DATA EXCHANGE USER GUIDE

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Pricing API

Search operations

Group by tag

GET Retrieve Ancillary Services Mar...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

API definition

API definition

Open API 3 (YAML)

Open API 3 (JSON)

Open API 2 (JSON)

WADL

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices. Prices are given in hourly intervals per Reserve Zone.

Ancillary Services Market Day-ahead

Request

GET https://apim.misoenergy.org/pricing/v1/day-ahead/{date}/asm-exante

Request parameters

Name	In	Required	Type	Description
date	template	true	string	Date for requested data

5. How to Subscribe to an API

MISO values the security of authentication. In order to access an API, you must have a subscription to it. Once subscribed, you are assigned a subscription key which allows you to programmatically query the API. This allows you to get the data you need without downloading reports and writing programs to consume a variety of report formats (.xlsx, csv, pdf).

- 1) Click the **Products** tab within the Data Exchange menu bar.
- 2) Select the desired **API Name**.

Home APIs **Products** Reports Profile Sign out

Products

Search products

Name	Description
Pricing API	This service provides access to the Energy and Ancillary Service prices in the Day-Ahead and Real-Time markets. Prices are published for both Ex-Ante and Ex-Post.

- 3) Enter your desired **subscription name**.
- 4) Click the **I agree to the Terms of Use** checkbox.
- 5) Click **Subscribe**.

Pricing API

Pricing API

This service provides access to the Energy and Ancillary Service prices in the Day-Ahead and Real-Time markets. Prices are published for both Ex-Ante and Ex-Post.

Your subscriptions

Name	Status
3 Your new product subscription name	4 ☐ I agree to the Terms of Use. Show

5

Subscribe

6) You will receive an email confirming your subscription.

Thank you for subscribing to the [Pricing API](#) and welcome to the MISO developer community. We are delighted to have you as part of the team and are looking forward to the amazing applications you will build using our API!

Below are a few subscription details for your reference:

- Start date: 2/22/2024
- Subscription term: MISO MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND EXPRESS OR IMPLIED WITH RESPECT TO THE ACCURACY OR ADEQUACY OF THE INFORMATION CONTAINED HEREIN. MISO SHALL HAVE NO LIABILITY TO RECIPIENTS OF THIS INFORMATION OR THIRD PARTIES FOR THE CONSEQUENCES ARISING FROM ERRORS OR DISCREPANCIES IN THIS INFORMATION FOR RECIPIENTS' OR THIRD PARTIES' RELIANCE UPON SUCH INFORMATION OR FOR ANY CLAIM LOSS OR DAMAGE OF ANY KIND OR NATURE WHATSOEVER ARISING OUT OF OR IN CONNECTION WITH (i) THE DEFICIENCY OR INADEQUACY OF THIS INFORMATION FOR ANY PURPOSE WHETHER OR NOT KNOWN OR DISCLOSED TO MISO (ii) ANY ERROR OR DISCREPANCY IN THIS INFORMATION (iii) THE USE OF THIS INFORMATION OR (iv) ANY LOSS OF BUSINESS OR OTHER CONSEQUENTIAL LOSS OR DAMAGE WHETHER OR NOT RESULTING FROM ANY OF THE FOREGOING.

Visit the developer [profile area](#) to manage your subscription and subscription keys

7) To view your subscription details, including keys, click the **Profile** tab within the menu bar.

8) Click **Show** to reveal your subscription key.

7

Home APIs Products Reports **Profile** Sign out

Subscriptions

Subscription details		Product	State	Action
Name	my-subscription-name-here	Pricing API	Active	Rename
Started on	02/22/2024			
Primary key	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			8 Show Regenerate
Secondary key	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			Show Regenerate

6. How to Try an API

- From within the API page, select an **operation** on the left-hand side.
- Select **Try it**.

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Pricing API

Search operations

1

GET Retrieve Ancillary Services Mar...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

Group by tag

API definition

Changelog

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2

Try it

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices, Prices are given in hourly intervals per Reserve Zone.

Ancillary Services Market

Day-ahead

Request

GET

https://apim.misoenergy.org/pricing/v1/day-ahead/{date}/asm-exante

3) Enter any required parameters.

Pricing API

Search operations

1

GET Retrieve Ancillary Services Mar...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

Group by tag

API definition

Changelog

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Ex-Ante and Ex-Post.

Retrieve Ancillary Services Ma

clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Marke

Ancillary Services Market

Day-ahead

Request

GET

https://apim.misoenergy.org/pricing/v1/day-a

Request parameters

Name	In	Required
date	template	true

Response: 200 OK

Successful operation

Pricing API

Retrieve Ancillary Services Market Day-ahead ExAnte Market clearing prices (MCP)

GET

/v1/day-ahead/{date}/asm-exante

Authorization

Subscription key

Primary: my-subscription-nam

Parameters

date

value

Value is required.

+ Add parameter

Headers

Cache-Control

no-cache

Ocp-Apim-Subscr

.....

+ Add header

4) Select the desired language from the HTTP request dropdown.

Pricing API

Search operations

Group by tag

GET Retrieve Ancillary Services Mar...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

API definition

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Retrieve Ancillary Services Ma clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Marke

Ancillary Services Market Day-ahead

Request

GET https://apim.misoenergy.org/pricing/v1/day-a

Request parameters

Name	In	Required
date	template	true

Response: 200 OK

Successful operation

HTTP request

HTTP

C#

Curl

Java

JavaScript

PHP

Python

Ruby

Swift

- 5) **Example code** showing developers how to format their requests for calling (accessing) the API will appear.
- 6) Click **Reveal secrets** to reveal your subscription key in the example code.

Pricing API

Search operations

Group by tag

GET Retrieve Ancillary Services Mar...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Ancillary Services Market ...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

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Retrieve Ancillary Services Market clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Marke

Ancillary Services Market Day-ahead

Request

GET https://apim.misoenergy.org/pricing/v1/day-a

Request parameters

Name	In	Required
date	template	true

Response: 200 OK

Successful operation

HTTP request

Python

```
##### Python 3.2 #####
import urllib.request, json

try:
    url = "https://apim.misoenergy.org/pricing/v1/day-ahead/{date}/asm-exante"

    hdr = {
        # Request headers
        'Cache-Control': 'no-cache',
        'Ocp-Apim-Subscription-Key': '.....'
    }

    req = urllib.request.Request(url, headers=hdr)

    req.get_method = lambda: 'GET'
    response = urllib.request.urlopen(req)
    print(response.getcode())
    print(response.read())
except Exception as e:
    print(e)
#####
```

- 7) Developers can find all the details for API endpoints by accessing the **API definition dropdown**. Select a preferred format to download it for easy reference while coding.

Pricing API

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API definition

API definition

Open API 3 (YAML)

Open API 3 (JSON)

Open API 2 (JSON)

WADL

Search operations

Group by tag

GET Retrieve Ancillary Services Mar...

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GET Retrieve Ancillary Services Market ...

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GET Retrieve Energy Market Day-ah...

GET Retrieve Energy Market Real-time ...

GET Retrieve Energy Market Real-time ...

Pricing API

to the Energy and Ancillary S

clearing prices (MCP)

Retrieve Ancillary Services Market Day-ahead ExAnte Marke

Ancillary Services Market

Day-ahead

Request

GET https://apim.misoenergy.org/pricing/v1/day-a

Request parameters

Name	In	Required
date	template	true

Response: 200 OK

Successful operation

+ Add header

HTTP request ^

Python

Reveal secrets Copy

```

##### Python 3.2 #####
import urllib.request, json

try:
    url = "https://apim.misoenergy.org/pricing/v1/day-ahead/{date}/asm-exante"

    hdr = {
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    req = urllib.request.Request(url, headers=hdr)

    req.get_method = lambda: 'GET'
    response = urllib.request.urlopen(req)
    print(response.getcode())
    print(response.read())
except Exception as e:
    print(e)
#####

```

7. Who to Contact for Support

For questions or assistance, please submit a case through the [MISO Help Center](#). When creating your case, select System or Technical Issues for the case category, IT Operations Center for the case type, and Public Data Reports and APIs for the case sub-type.

Case Details

Category *

System or Technical Issues

Type *

IT Operations Center

Sub-Type *

Public Data Reports and APIs

Submit a case to request data or reports that are missing from the MISO Website.

IMPORTANT: If your issue is of a critical/urgent nature or you are requesting technical/application support after business hours, please contact our IT Operations Center directly, 1-866-296-6476 Option 1.