GME's API Service
User Manual

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Introduction

GME makes available an API (Application Programming Interface) service to enable users to download the market results published on its website.

The use of the service requires credentials (username and password) that may be obtained from GME by filling in a dedicated form.

This document describes the procedure to request a user account for accessing the service, and examples of use of the service.

All the information concerning the API service is available on the dedicated page of GME's website at the following link:

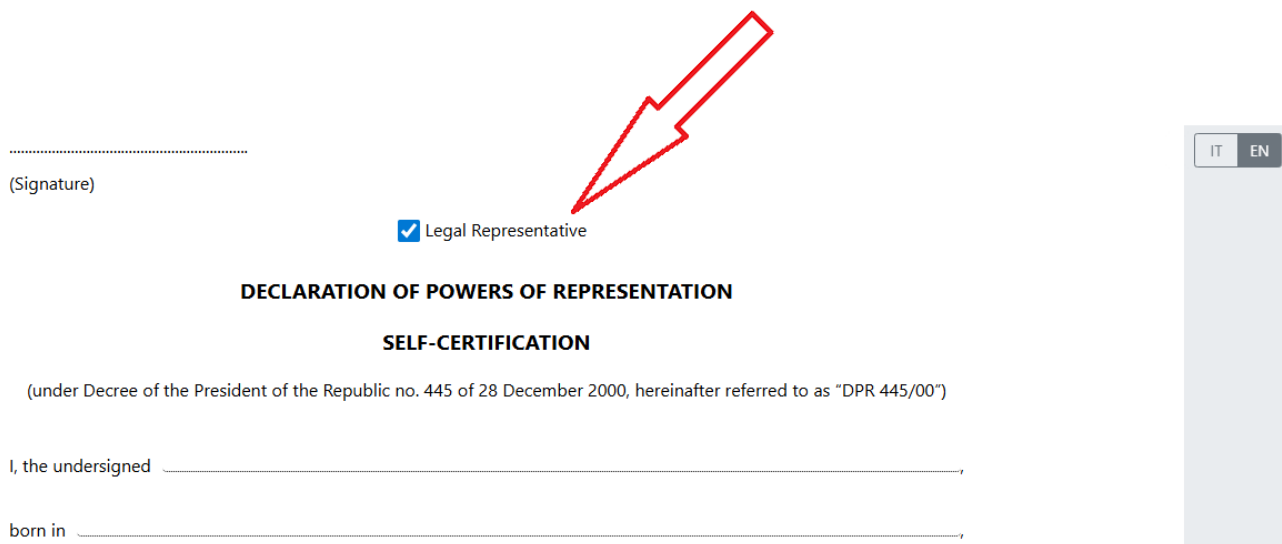https://www.mercatoelettrico.org/en-us/Home/APIService

1. Request of credentials

To request the credentials for accessing GME's API service, the applicant must fill in the registration form available at the following address:

https://api.mercatoelettrico.org/users/RegistrationForm/RegistrationRequest

If the applicant represents a "persona giuridica" (e.g., company, organisation, etc.), he/she should select the corresponding option and complete the additional fields concerning the "Dichiarazione sostitutiva di certificazione" (Self-Certification) pursuant to Decree of the President of the Republic no. 445/00 (hereafter DPR 445/00), certifying his/her powers of representation.

N.B.: If the legal representative of the organisation is not an EU citizen, he/she should submit equivalent documents certifying his/her powers of representation (e.g. extract of report of registration of the organisation with the local Board of Trade or copy of notarised power of attorney).

After completing the form and entering the Captcha correctly, click on the "conferma" (confirm) button.

The system will display a .zip file containing one or two pdf documents ("TERMS OF USE" + possible Self-Certification pursuant to DPR 445/00) that must be digitally signed and sent by certified e-mail to GME's certified e-mail address: **gme@pec.mercatoelettrico.org**.

If the applicant has no digital signature certificate, he/she must sign the above-mentioned documents in handwritten form and submit them together with a copy of a valid identity document.

If the applicant has no certified e-mail address, he/she must submit the documents (signed digitally or in handwritten form together with a copy of a valid identity document) to GME's dedicated e-mail address: **posta.gme@mercatoelettrico.org**.

After receiving the documents and verifying their regularity, GME will send an e-mail to the user with the temporary access credentials.

2. Password change

The temporary password received from GME upon registration cannot be used for access to the API service. The user should change it by connecting to the portal at the following address: https://api.mercatoelettrico.org/users/

After the first access, the user may change his/her temporary password by specifying a new one (consisting of at least 12 characters and including at least one digit, one uppercase letter, one lowercase letter, and one special character).

The new password will be valid for 6 months, after which the user will have to change it again by accessing the same portal.

3. Password recovery

If the user forgets his/her password for access to the API service, he/she may autonomously create a new one by accessing the portal https://api.mercatoelettrico.org/users/ and clicking on the "Recupero credenziali" (recovery of credentials) button.

The system will display a form where the user must enter the username provided by GME and the e-mail address specified upon registration.

By clicking on the "Conferma" (confirm) button, the user will receive a new e-mail with the link to create a new password.

4. Procedure for using the API service

This chapter describes the general procedure for using the API service provided by GME, giving an overview of its main access options, and a specific example of use through the TalendAPI plugin available in the Chrome browser.

The API service enables to download the results of GME's markets via HTTP requests, by using JSON data exchange formats.

A complete description of the data queries and formats to be submitted is given in the API Service Technical Guide available at this link.

The endpoint made available for using the service is: https://api.mercatoelettrico.org/request/api/v1/.

Access methods may vary depending on user requirements and the operating environment:

- customised applications: through the direct integration of API calls into newly developed or existing management software tools (GME does not provide already implemented libraries or tools);
- test or analysis tools: using dedicated REST clients (e.g. cURL or similar) making it possible to submit queries and view responses instantly, or web browser plugins (e.g. TalendAPI).

4.1 Example of use of the API service

The following is an example of using the service directly in the Chrome browser via the TalendAPI plugin.

As a first step, log into the system with the /Auth method:
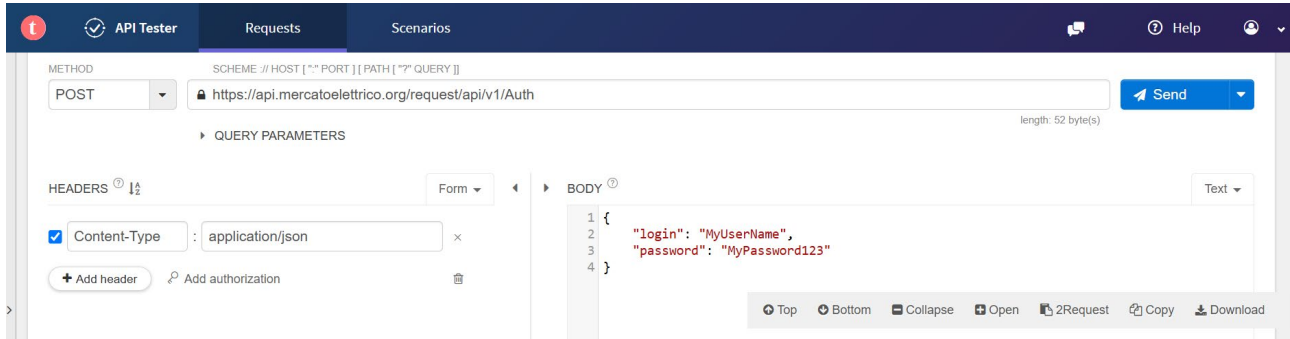
If the authentication is not successful, you will receive a negative response and the related reason:

If the authentication is successful, the response will contain the JWT token to be used in subsequent data queries:

After obtaining the authentication token, you may enter data queries with the RequestData method[1]:

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[1] Important: enter the token into the Authorization header with the "Bearer" value followed by a space and then the token value.

If the request is not successful, the resultRequest field will show the cause of the problem:

If the request is successful, you will receive a positive response with the requested data:

The data is contained in the value of the "contentResponse" field, which represents a .zip file in Base64 encoding.
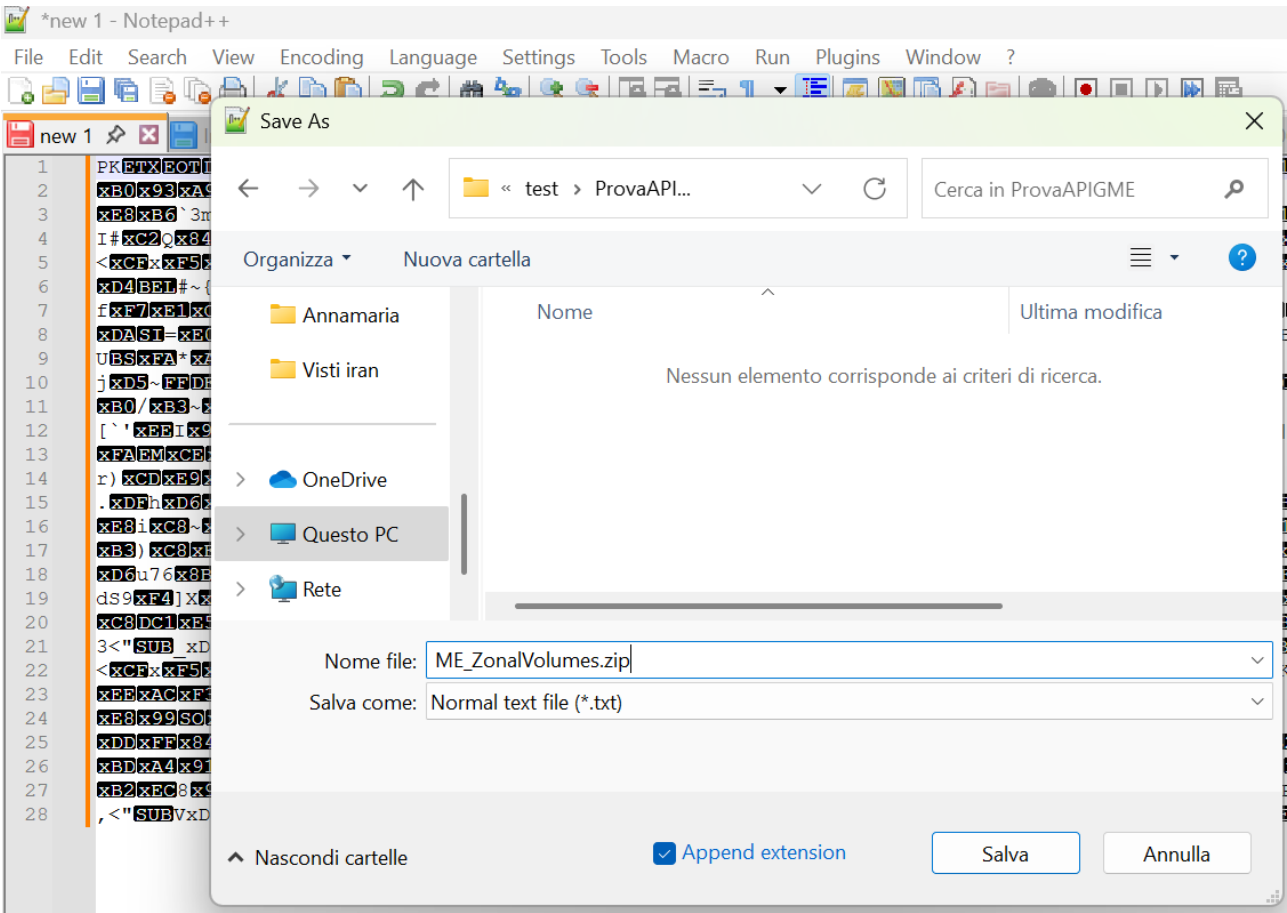
To convert the string into a file, you may use any decoding tool. The following example uses Notepad++.

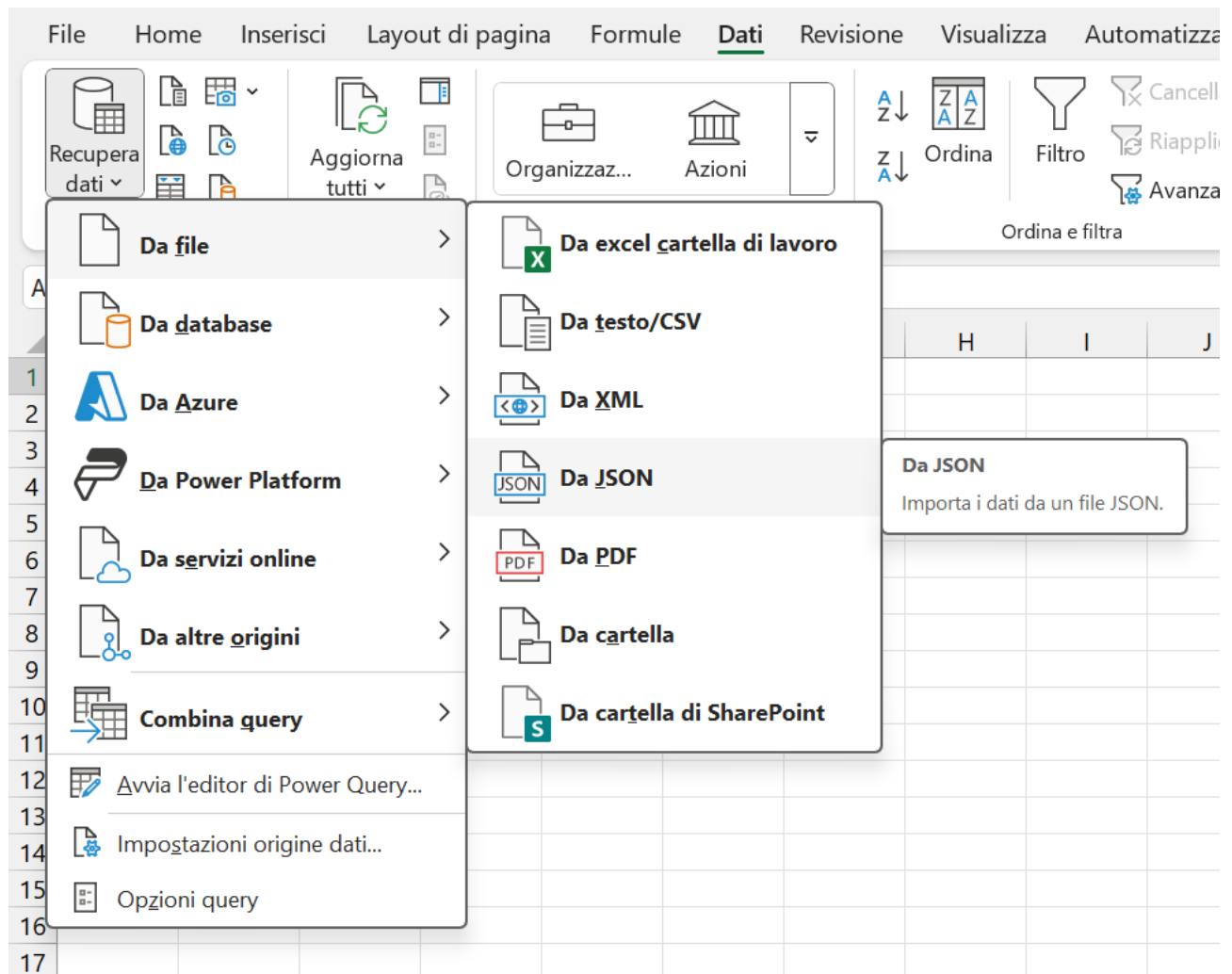Open the editor and paste the contentResponse value to a new document.

After selecting it, choose the Plugins -> MIME Tools -> Base64 Decode menu.
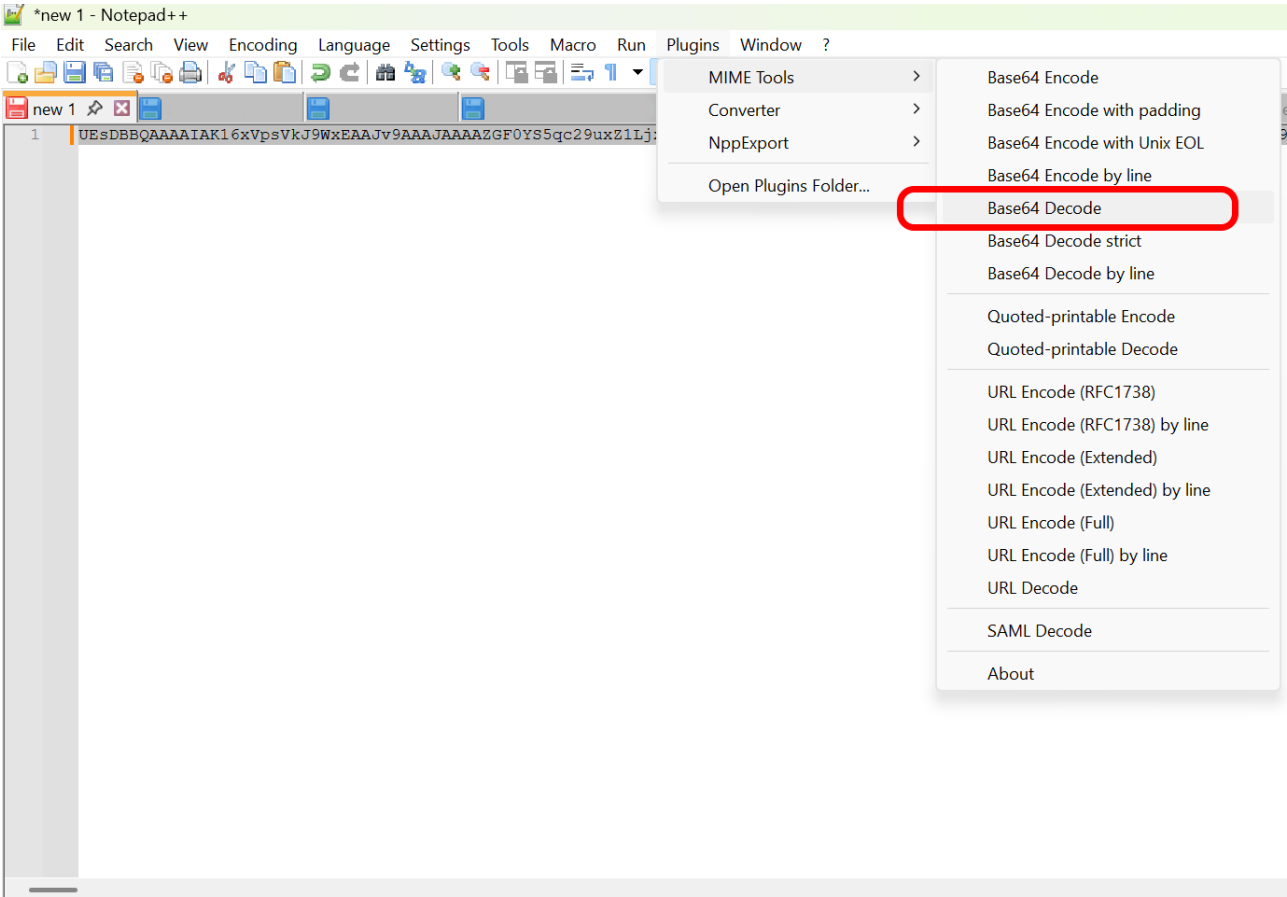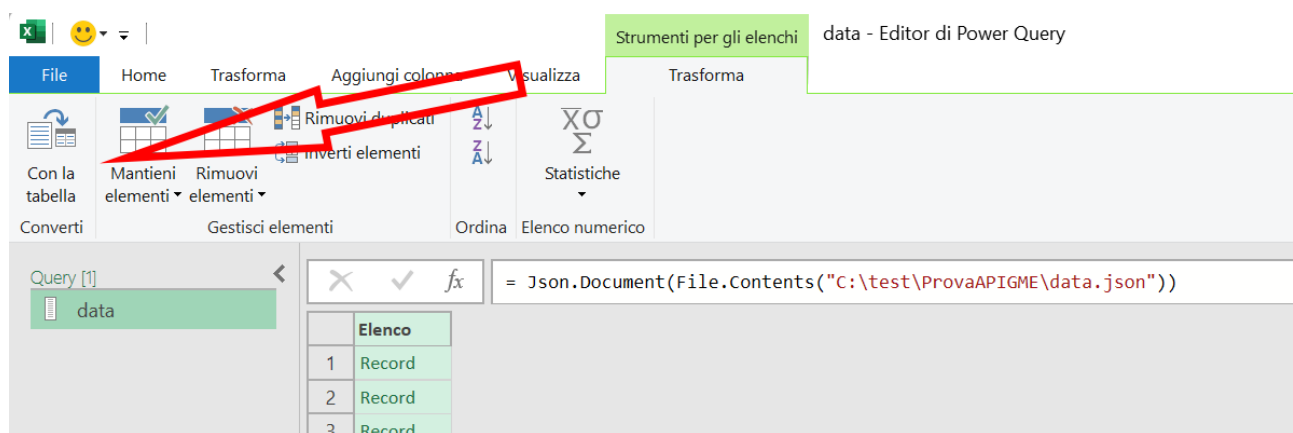
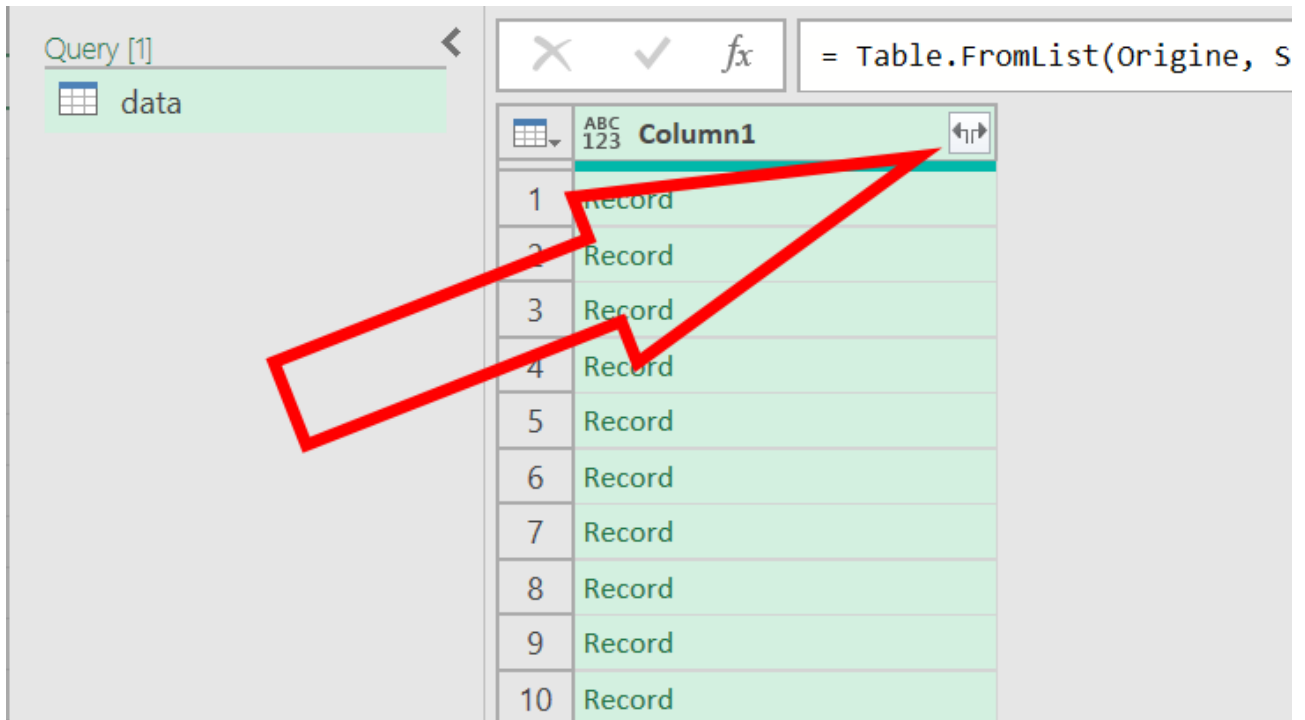After decoding the file, you may save it with a .zip extension:

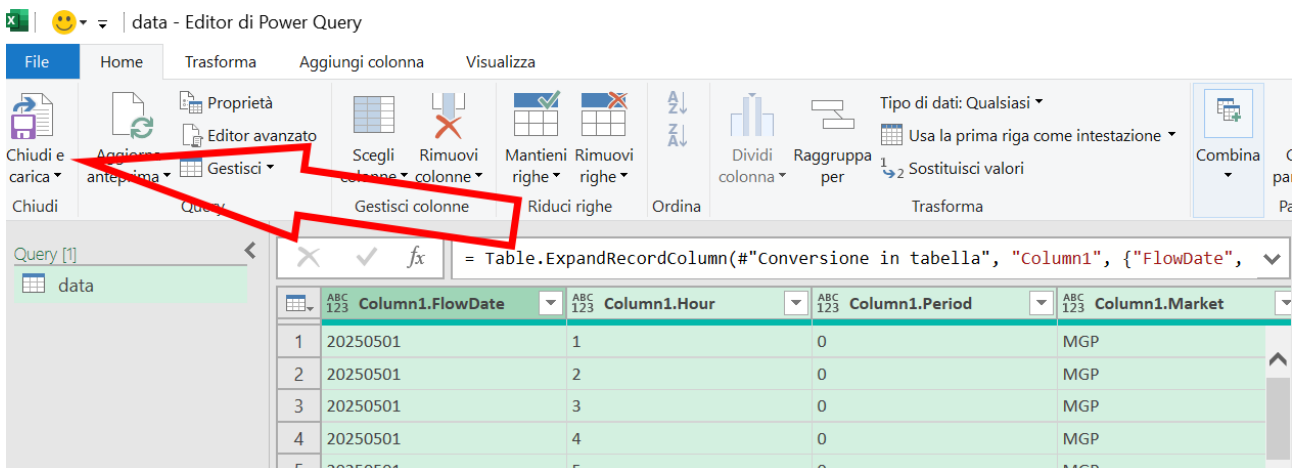The .zip file contains a data.json file that you may view via Excel:

The system will display a window, where you have to press the "Con la tabella" (with the table) button,

and then expand the columns:

Finally, click on the "Chiudi e carica" (close and load) button.

5. User quotas

GME's API service manages queries through a quota system. Each user is limited to a certain number of connections per minute and per hour, as well as a maximum number of data items that can be downloaded within those timeframes. Once the maximum values are reached, the user must wait until the end of the current minute or hour before submitting a new query.

The consumed quotas and the maximum available limits can be viewed using the /GetMyQuotas method.

To ensure a constantly efficient service, GME reserves the right to modify quota limits at any time and without prior notice.