



Market Area Data Interface

In this document, the data retrieval of the Market Area Data from the AGGM-Platform via API is explained.

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Data Retrieval

Regarding the data retrievals, it is important to note that the requests are limited to 60 calls per minute per token and a maximum of 6,000 calls per minute in total (over all users).

Contact Details

In case of any queries, please contact marktgebietsmanager@aggm.at

Authentication

URL	https://agimos.aggm.at/datenmanagementApi/Authenticate
Method	POST
Description	<p>Necessary for API-identity authentication.</p> <p>For authentication username and password are needed. As response an access and refresh token will be delivered. The access token serves an authentication of further requests. The refresh token can be used for requesting a new access token without full reauthentication if the refresh token has not expired.</p> <p>The expiry times are delivered in the response.</p>
Request Structure	<ul style="list-style-type: none">• request<ul style="list-style-type: none">○ metadata<ul style="list-style-type: none">▪ action: <i>authenticate</i>○ payload<ul style="list-style-type: none">▪ username - username▪ password - Password
Request-example (XML)	<pre><request> <metadata> <action>authenticate</action> </metadata> <payload> <username>123e4567-e89b-12d3-a456-426614174000</username> <password>swordfish</password> </payload> </request></pre>

Response structure	<ul style="list-style-type: none"> • response <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>authenticate</i> ▪ accessToken - AccessToken of currently valid session as XML-Token ○ payload <ul style="list-style-type: none"> ▪ accessToken - AccessToken of currently valid session as XML-Token for further authentication ▪ refreshToken - RefreshToken as XML-Token for renewing the access token. ▪ accessExpiresIn – Validity in seconds of access token ▪ refreshExpiresIn - Validity in seconds of refresh token
Response-example	<pre><response> <metadata> <action>authenticate</action> <accessToken></accessToken> </metadata> <payload> <accessToken>eyJhDvN3[...]BlpXx0sw</accessToken> <refreshToken>eyJhbGc[...]45IuY8Fo</refreshToken> <accessExpiresIn>300</accessExpiresIn> <refreshExpiresIn>1800</refreshExpiresIn> </payload> </response></pre>

Refresh Token

URL	https://agimos.aggm.at/datenmanagementApi/RefreshToken
Method	POST
Description	Used for renewing an access token after expiry without full reauthentication. The refresh token also has an expiry time.
Request Structure	<ul style="list-style-type: none"> • request <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>refreshToken</i> ○ payload <ul style="list-style-type: none"> ▪ refreshToken – A valid refresh token of an expired session.
Request-example (XML)	<pre><request> <metadata> <action>refreshToken</action> <accessToken/> </metadata> <payload> <refreshToken>eyJhbGciOiJIUzI1[...]s9yl4N5BxKk</refreshToken> </payload> </request></pre>

<p>Response structure</p>	<ul style="list-style-type: none"> • response <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>refreshToken</i> ▪ accessToken - AccessToken of currently valid session as XML-Token ○ payload <ul style="list-style-type: none"> ▪ accessToken - AccessToken of currently valid session as XML-Token for further authentication ▪ refreshToken - RefreshToken as XML-Token for renewing the access token. ▪ accessExpiresIn – Validity in seconds of access token ▪ refreshExpiresIn - Validity in seconds of refresh token
<p>Response-example</p>	<pre> <response> <metadata> <action>refreshToken</action> <accessToken>eyJhbGc[...]-6wLUO1hmuQlpXx0sw</accessToken> </metadata> <payload> <accessToken>eyJhbGc[...]-6wLUO1hmuQlpXx0sw</accessToken> <refreshToken>eyJhIUz1Niil[...].zsXh5luY8Fo</refreshToken> <accessExpiresIn>300</accessExpiresIn> <refreshExpiresIn>1800</refreshExpiresIn> </payload> </response> </pre>

AttributeList

URL	https://agimos.aggm.at/datenmanagementApi/AttributesList
Method	POST
Description	Request for retrieving all available attributes for API requests in order to filter timeseries requests. Additionally, all possible values of each attribute can be requested.
Request Structure	<ul style="list-style-type: none"> • request <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>authenticate</i> ○ payload <ul style="list-style-type: none"> ▪ withValues: <i>optional</i> – if true then all possible values of each attribute will be supplied
Request-example (XML)	<pre><request> <metadata> <action>attributeList</action> <accessToken>eyJhbGc[...]-6wLUO1hmuQlpXx0sw</accessToken> </metadata> <payload> <withValues>true</withValues> </payload> </request></pre>
Response structure	<ul style="list-style-type: none"> • response <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>attributeList</i> ▪ accessToken - AccessToken of currently valid session as XML-Token ○ payload <ul style="list-style-type: none"> ▪ attributes – list of all available attributes <ul style="list-style-type: none"> ▪ attribute <ul style="list-style-type: none"> ▪ name – name of each attribute ▪ possibleValues – list of possible values of each attribute. Only supplied when <i>withValues</i> is set to <i>true</i> <ul style="list-style-type: none"> ▪ value – possible value

Response-ex-
ample (XML)

```
<response>
  <metadata>
    <action>attributeList</action>
  </metadata>
  <payload>
    <attributes>
      <attribute>
        <name>Category</name>
        <possibleValues>
          <value>value</value>
        </possibleValues>
      </attribute>
      <attribute>
        <name>Location</name>
        <possibleValues>
          <value>Arnoldstein</value>
          <value>Baumgarten</value>
          <value>aundb</value>
          <value>gca-tso</value>
        </possibleValues>
      </attribute>
    </attributes>
  </payload>
</response>
```

TimeseriesList

URL	https://agimos.aggm.at/datenmanagementApi/TimeseriesList
Method	POST
Description	Delivers a list of all available timeseries.
Request Structure	<ul style="list-style-type: none"> • request <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>timeseriesList</i> ○ payload
Request-example (XML)	<pre><request> <metadata> <action>timeseriesList</action> <accessToken>eyJhbGCI[...Sx4d2Xz_DPPIEw</accessToken> </metadata> <payload> </payload> </request></pre>
Response structure	<ul style="list-style-type: none"> • response <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>attributeList</i> ▪ accessToken - AccessToken of currently valid session as XML-Token ○ payload <ul style="list-style-type: none"> ▪ timeseriesList <ul style="list-style-type: none"> ▪ timeseries <ul style="list-style-type: none"> ▪ name – name of each timeseries ▪ unit – unit of each timeseries ▪ scope – public (static value for public API)
Response-example (XML)	<pre><response> <metadata> <action>timeseriesList</action> </metadata> <payload> <timeseriesList> <timeseries> <name>Boersenreferenzpreis</name> <unit>cent/KWH</unit> <scope>public</scope> </timeseries> <timeseries> <name>ClearingpreisBezug</name> <unit>cent/KWH</unit> <scope>public</scope> </timeseries> </timeseriesList> </payload> </response></pre>

Public interface

URL	https://agimos.aggm.at/datenmanagementApi/PublicInterface
Method	POST
Description	<p>Delivers the data of selected timeseries. Attributes and attribute value combinations can be used for the filtering of responding timeseries. The list of attributes and their values can be requested with <i>AttributeList</i>.</p> <p>With setting the element <i>changedValuesOnly</i> to “true”, time periods with the same value will be condensed into one timeseriesData block.</p> <p>At least one attributes- or timeseries-element must be used in the request.</p>
Request Structure	<ul style="list-style-type: none"> • request <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>publicInterface</i> ▪ accessToken [<i>token</i>] ○ payload <ul style="list-style-type: none"> ▪ withAttributes - optional, true false - If true then also the attributes will be delivered. ▪ granularity - optional, Hour Day Month Year – Default value is Hour ▪ timeseriesData <ul style="list-style-type: none"> ▪ from ▪ to ▪ changedValuesOnly: optional, true false - If true then time periods with the same value will be condensed into one timeseriesData block ▪ attributes <ul style="list-style-type: none"> ▪ attribute - Optional, element can be used several times <ul style="list-style-type: none"> ▪ key ▪ value ▪ timeseries: optional, for filtering of resulting timeseries <ul style="list-style-type: none"> ▪ name: name of timeseries. element can be used several times

Request-example (XML)	<pre> <request> <metadata> <action>publicInterface</action> <accessToken>eyJhbGciOiJIUzI1NiIsInR[...].pjk8vYsQhUQmVnao4S6Qn9X</accessToken> </metadata> <payload> <timeseriesData> <from>2021-06-07T16:00:00Z</from> <to>2021-06-09T16:00:00Z</to> <attributes> <attribute> <key>MarketArea</key> <value>East</value> </attribute> </attributes> <timeseries> <name>Boersenreferenzpreis</name> <name>ClearingpreisBezug</name> <name>ClearingpreisLieferung</name> </timeseries> </timeseriesData> <granularity>Month</granularity> </payload> </request> </pre>
Response structure	<ul style="list-style-type: none"> • response <ul style="list-style-type: none"> ○ metadata <ul style="list-style-type: none"> ▪ action: <i>publicInterface</i> ○ payload <ul style="list-style-type: none"> ▪ timeseriesData <ul style="list-style-type: none"> ▪ timeseries: element for each timeseries <ul style="list-style-type: none"> ▪ header <ul style="list-style-type: none"> ▪ name: unique name of each timeseries ▪ unit: unit of each timeseries ▪ dataSet <ul style="list-style-type: none"> ▪ data ▪ from: <i>in UTC</i> ▪ to: <i>in UTC</i> ▪ value ▪ flag <i>quality of each value (missing, noAccess, valid)</i>

Response-example (XML)

```
<response>
  <metadata>
    <action>publicInterface</action>
  </metadata>
  <payload>
    <timeseriesData>
      <timeseries>
        <header>
          <name>Boersenreferenzpreis</name>
          <unit>cent/KWH</unit>
          <interval>
            <type>hour</type>
            <multiplier>1</multiplier>
          </interval>
          <from>2021-05-21T00:00:00Z</from>
          <to>2021-05-21T23:00:00Z</to>
        </header>
        <dataSet>
          <data>
            <from>2021-06-07T14:00:00Z</from>
            <value>1230.0</value>
            <flag>valid</flag>
          </data>
          <data>
            <from>2021-06-08T13:00:00Z</from>
            <value>12340.0</value>
            <flag>valid</flag>
          </data>
        </dataSet>
      </timeseries>
    </timeseriesData>
  </payload>
</response>
```