

Package ‘ukgasapi’

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Title API for UK Energy Market Information

Version 0.21

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Description Allows users to access live UK energy market information via various APIs.

Depends R (>= 3.0.0)

BugReports <https://github.com/timothywong731/ukgasapi/issues>

License GPL-2

Imports httr,XML

LazyData true

Suggests ggplot2, knitr, rmarkdown

RoxygenNote 7.1.1

VignetteBuilder knitr

NeedsCompilation no

Repository CRAN

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`bmrIndoItsdo`*BMRS Initial Demand Outturn API Service*

Description

This function connects to the Elexon's BMRS API to retrieve Initial Demand Outturn (INDO) and Initial Transmission System Demand Out-Turn (ITSDO) data. Internet connection must be available.

Usage

```
bmrIndoItsdo(  
  fromdate,  
  todate,  
  apikey,  
  batchsize = 60,  
  apiurl = "https://api.bmreports.com/BMRS/INDOITSDO/v1"  
)
```

Arguments

<code>fromdate</code>	A character object specifying the start date. Date is inclusive.
<code>todate</code>	A character object specifying the end date. Date is inclusive.
<code>apikey</code>	A character object specifying the API key. This is also known as scripting key on Elexon's website.
<code>batchsize</code>	An interger value indicating the batch size of each API call. (Number of days included in one call)
<code>apiurl</code>	A character object which points to the BMRS INDO/ITSDO API. Under most circumstances users do not have to change this. Default to 'https://api.bmreports.com/BMRS/INDOITSDO'

Details

The function submits a request to the API. The response is in CSV format which function will parse internally and returns a R dataframe object. The data returned by this API is identical to the data displayed on BMRS dashboard <https://www.bmreports.com/bmrs/?q=demand/initialdemandoutturn>.

Value

A dataframe object containing API response data.

Author(s)

Timothy Wong, <timothy.wong@hotmail.co.uk>

References

- BMRS API and Data Push User Guide
<https://www.elexon.co.uk/documents/training-guidance/bsc-guidance-notes/bmrs-api-and-data-push>
- Scripting Guide
<https://www.elexonportal.co.uk/scripting>
- Initial Demand Outturn (INDO)
<https://www.bmreports.com/bmrs/?q=help/glossary#INDO>
- Initial Transmission System Demand Out-Turn (ITSDO)
<https://www.bmreports.com/bmrs/?q=help/glossary#ITSDO>

Examples

```
## Not run:
# Invoke the API (requires internet connection at this step)
response <- bmrsIndoItsdo(fromdate = "2020-01-01",
                        todate = "2020-01-10",
                        apikey = "your api key goes here")

# Visualise the results on a chart
library(ggplot2)
ggplot(response, aes(x=publishtime, y=value, colour=recordtype)) +
  geom_line()

## End(Not run)
```

dataItemExplorer

Data Item Explorer API

Description

This function connects to the UK National Grid's API for Data Item Explorer, which is a major data source for gas-related information. Internet connection must be available.

Usage

```
dataItemExplorer(
  dataitems,
  fromdate,
  todate,
  datatype = "gasday",
  latestflag = "Y",
  applicableforflag = "Y",
  batchsize = -1,
  apiurl = paste0("https://marketinformation.natgrid.co.uk/",
                 "MIPIws-public/public/publicwebservice.asmx")
)
```

Arguments

dataitems	A vector of characters containing data items to enquire via API.
fromdate	A character object specifying the start date. Date is inclusive.
todate	A character object specifying the end date. Date is inclusive.
datatype	A character object specifying the data type. Defaults to gasday
latestflag	A character object with length of one to specify whether to extract the latest data. This can either be Y or N. Defaults to Y.
applicableforflag	A character object with length of one to specify whether dates specified are 'applicable for' or 'applicable on'. This can either be Y or N where Y indicates 'applicable for'. Defaults to Y.
batchsize	An interger value indicating the batch size of each API call. To invoke a single API call, use zero or negative values.
apiurl	A character object which points to National Grid's SOAP API. Under most circumstances users do not have to change this. Default to 'http://marketinformation.natgrid.co.uk/MIPIws-public/public/publicwebservice.asmx'

Details

The function submits a request to the API using XML over SOAP protocol. The response is in XML format which function will parse internally and returns a R dataframe object.

Value

A dataframe object containing API response data.

Author(s)

Timothy Wong, <timothy.wong@hotmail.co.uk>

References

- Graphical User Interface for Data Item Explorer
<https://mip-prd-web.azurewebsites.net/DataItemExplorer>
- API specification
<https://marketinformation.natgrid.co.uk/MIPIws-public/public/publicwebservice.asmx?op=GetPublicationDataWM>

Examples

```
## Not run:
# Specify the data item(s) to enquire from API
dataitems <- c("Storage Injection, Actual",
              "Storage Withdrawal, Actual")

# Invoke the API (requires internet connection at this step)
response <- dataItemExplorer(dataitems,
```

```
        fromdate = "2020-01-01",  
        todate="2020-01-31")  
  
# Visualise the results on a chart  
library(ggplot2)  
ggplot(response,aes(x=ApplicableFor,y=Value,colour=PublicationObjectName)) +  
  geom_line()  
  
## End(Not run)
```

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