Package ‘aimsir17’

August 14, 2020

Title Irish Weather Observing Stations Hourly Records for 2017

Version 0.0.2

Description Named after the Irish name for weather, this package contains tidied data from the Irish Meteorological Service's hourly observations for 2017. In all, the data sets include observations from 25 weather stations, and also latitude and longitude coordinates for each weather station. Now includes energy generation data for Ireland and Northern Ireland (2017), including Wind Generation data.

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Depends R (>= 2.10)

Suggests dplyr

Imports tibble

Encoding UTF-8

LazyData true

    http://www.eirgridgroup.com/how-the-grid-works/renewables/,

RoxygenNote 7.1.1

NeedsCompilation no

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Repository CRAN

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Description
EirGrid System Data Quarterly Hourly for 2017

Usage
eirgrid17

Format

- **year** Year of observation.
- **month** Month of observation.
- **day** Day of observation.
- **hour** Hour of observation.
- **minute** Minute of observation.
- **date** Date and Time (utc).

**NIGeneration** Northern Ireland Generation.
**NIDemand** Northern Ireland Demand.
**NIWindAvailability** Northern Ireland Wind Availability.
**NIWindGeneration** Northern Ireland Wind Generation.
**IEGeneration** Republic of Ireland Generation.
**IEDemand** Republic of Ireland Demand.
**IEWindAvailability** Republic of Ireland Wind Availability.
**NIWindGeneration** Republic of Ireland Wind Generation.
**SNSP** System Non-Synchronous Penetration (SNSP) is the sum of wind + solar generation + HVDC imports as a percentage of total demand + exports

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Modifications  
New columns added to the data for Year, Month, Day, Hour and Minute. Columns representing GMT offset removed. The column date transformed to a ‘POSIXct’ type. Furthermore, note that: The system data in this report is based on average 15-minute SCADA readings (MW). All figures represent net exported energy. Maximum/Minimum figures in the different jurisdictions do not necessarily occur at the same time. The maximum SNSP limit allowed on the system is 65 SNSP may exceed this maximum limit due to wind variations.

Source

http://www.eirgridgroup.com/how-the-grid-works/renewables/

observations  
Met Eireann - Weather Observing Stations Records 01-Jan-2017 to 31-Dec-2017

Description

Met Eireann - Weather Observing Stations Records 01-Jan-2017 to 31-Dec-2017

Usage

observations

Format

date  Date and Time (utc).

rain  Precipitation Amount (mm).

temp  Air Temperature (C)

wetb  Wet Bulb Temperature (C)

dewpt  Dew Point Temperature (C)

vappr  Vapour Pressure (hPa)

rhum  Relative Humidity %

msl  Mean Sea Level Pressure (hPa)

wddir  Predominant Wind Direction (deg)

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Modifications  New columns added to the data for Year, Month, Day and Hour. Columns representing indicators removed. The column date transformed to a ‘POSIXct’ type

Source

https://www.met.ie
### Summary of weather observing stations with observations

#### Description

Summary of weather observing stations with observations

#### Usage

stations

#### Format

- **station**: Name of the Weather Observing Station
- **height**: Height above sea level (M)
- **latitude**: Latitude of weather station
- **longitude**: Longitude of weather station

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#### Modifications

New columns added to the data for Year, Month, Day and Hour. All ind columns removed. Date formatted to R data object format using package lubridate

#### Source

[https://www.met.ie](https://www.met.ie)
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