Package: mrenergy (via r-universe)

June 27, 2026

Type Package

Title Preprocessing functions for REMIND and other energy models using landuse data

Version 0.1.4

Date 2026-06-27

Description Preprocessing functions for REMIND and other energy models (buildings, transport, industry) using landuse data.

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URL https://github.com/pik-piam/mrenergy

BugReports https://github.com/pik-piam/mrenergy/issues

Depends edgeTransport (>= 3.5.0), GDPuc (>= 1.3.0), madrat (>= 3.10.0), magclass (>= 3.17), mrcommons (>= 1.70.1), mrcommonsenergy (>= 0.3.3), mrdrivers (>= 7.1.1), R (>= 2.10.0)

Imports dplyr, magrittr, stats, tibble, tidyr, tidyselect, readxl, rlang

Suggests testthat

Encoding UTF-8

LazyData no

Roxygen list(markdown = TRUE)

Config/Needs/website tidyverse/tidytemplate

Config/roxygen2/version 8.0.0

Config/pak/sysreqs cmake libfontconfig1-dev libfreetype6-dev libfribidi-dev libgdal-dev gdal-bin libgeos-dev git libglpk-dev make libharfbuzz-dev libhdf5-dev libgit2-dev libicu-dev libpng-dev libuv1-dev libxml2-dev libnetcdf-dev libssl-dev pari-gp libproj-dev libsqlite3-dev libx11-dev zlib1g-dev

Repository https://pik-piam.r-universe.dev

Date/Publication 2026-06-27 10:30:19 UTC

RemoteUrl https://github.com/pik-piam/mrenergy

RemoteRef HEAD

RemoteSha c0169a4f0373f895bbcb5234d53e974830b6ba88

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`mrenergy-package` *mrenergy: Preprocessing functions for REMIND and other energy models using landuse data*

Description

Preprocessing functions for REMIND and other energy models (buildings, transport, industry) using landuse data.

Author(s)

Maintainer: Falk Benke <benke@pik-potsdam.de>

Authors:

- Falk Benke <benke@pik-potsdam.de>

See Also

Useful links:

- https://github.com/pik-piam/mrenergy
- Report bugs at https://github.com/pik-piam/mrenergy/issues

calcEmissions *calcEmissions*

Description

calcEmissions

Usage

```
calcEmissions(datasource = "CEDS16")
```

Arguments

datasource	"CEDS2REMIND", "CEDS2025", "EDGAR6", "EDGARghg", "CDIAC", "ClimateTrace"

Value

magpie object with historical emissions

Author(s)

Steve Smith, Pascal Weigmann

calcFE *Calculates FE historical from IEA energy balances*

Description

Calculates FE historical from IEA energy balances

Usage

```
calcFE(ieaVersion = "default")
```

Arguments

ieaVersion	Release version of IEA data, either 'default' (vetted and used in REMIND) or 'latest'.

Author(s)

Lavinia Baumstark, Aman Malik

calcIO *Calc Input Output*

Description

Computes IEA-based model data for different "subtypes" by use of raw IEA "Energy Balances" data and a mapping that corresponds to the structure of "products" and "flows" of IEA.

Usage

```
calcIO(
  subtype = c("input", "output", "trade"),
  ieaVersion = "default",
  corrected = FALSE
)
```

Arguments

subtype	Data subtype. See default argument for possible values.
ieaVersion	Release version of IEA data, either 'default' (vetted and used in REMIND) or 'latest'.
corrected	boolean indicating whether corrections should be applied to the data after mapping

Details

Mapping structure example: IEA product ANTCOAL used for IEA flow TPATFUEL, contributes via REMIND technology coaltr for generating sesofos from pecoal (REMIND names)

Value

IEA data as MAgPIE object aggregated to country level

Author(s)

Anastasis Giannousakis

Examples

```
## Not run:
a <- calcOutput("IO", subtype = "output")

## End(Not run)
```

calcLDVShares *Calculate LDV Shares using EDGE-Transport*

Description

Calculate LDV Shares using EDGE-Transport

Usage

```
calcLDVShares()
```

Author(s)

Johanna Hoppe, Falk Benke

convertClimateTrace *Convert ClimateTrace data*

Description

Convert ClimateTrace data

Usage

```
convertClimateTrace(x)
```

Arguments

x	A magpie object returned from readClimateTrace().

Value

A magpie object.

Author(s)

Pascal Weigmann

convertIEA_ETP *Convert IEA ETP projections*

Description

Convert IEA ETP projections

Usage

```
convertIEA_ETP(x, subtype)
```

Arguments

x	IEA ETP projection magpie object derived from readIEA_ETP function
subtype	data subtype. Either "industry", "buildings", "summary", or "transport"

Author(s)

Falk Benke, Robin Hasse

readClimateTrace *Read Climate Trace*

Description

Read in Climate Trace csv files as magclass object for CO2, CH4 and N2O emissions by subsector and country.

Usage

```
readClimateTrace()
```

Value

magpie object of the ClimateTrace data with historical emissions

Author(s)

Pascal Weigmann

Examples

```
## Not run:
a <- readSource(type = "ClimateTrace")

## End(Not run)
```

readIEA_ETP *Read IEA ETP projections*

Description

Read IEA ETP projections

Usage

```
readIEA_ETP(subtype)
```

Arguments

subtype	data subtype. Either "industry", "buildings", "summary", or "transport"

Author(s)

Falk Benke

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