oemof

oemof developer group

CONTENTS

The Open Energy Modelling Framework (oemof) is a Python toolbox for energy system modelling and optimisation.

The oemof project aims to be a loose organisational frame for tools in the wide field of (energy) system modelling. Every project is managed by their own developer team but we share some developer and design rules to make it easier to understand each other's tools. All project libraries are free software licenced under the MIT license.

All projects are in different stages of implementation, some even may not have a stable release, but all projects are open to be joined by interested people. We do not belong to a specific institution and everybody is free to join the developer teams and will have the same rights. There is no higher decision level.

CONTENTS

OEMOF COMMUNITY

This repository is also used to organise everything for the oemof community.

- Webconference dates

- Real life meetings

- Website and Mailinglist

- General communication

You can find recent topics of discussion in the issues.

1.1 Real life meetings

The oemof community meets in person on a regular basis. Find the latest information on the next meeting(s) on this wiki page: https://github.com/oemof/oemof/wiki

1.2 Read more

1.2.1 Packages

Under the umbrella of oemof, several libraries for energy system modelling are collected. Each specialised for a certain task. The most recognised library oemof-solph is used to model energy system with LP/MILP. It can be fed with demand data from the demandlib and feedin timeseries from the feedinlib. TESPy provides in-depth modelling of thermal energy systems. oemof-thermal extends oemof-solph components with LP/MILP modelled thermal components. CyDeTS can be used to detect storage cycles. The libraries share common principles, similar APIs, and are at least partially interoperable.

Projects with stable releases

Package	Description	Links
oemof-solph	A model generator for energy system modelling and optimisation (LP/MILP)	⦿
oemof-thermal	Tools to model thermal energy components (compression heat pumps, concentrating solar plants, thermal storages and solar thermal collectors) as an extension of oemof-solph	⦿
CyDeTS	Cycle Detection in Time Series (CyDeTS). An algorithm to detect cycles in times series along with their respective depth-of-cycle (DoC) and duration	⦿
demandlib	Generate load profiles for elctricity and heat demand	⦿
feedinlib	Calculate feedin timeseries for fluctuating renewable energy source from Open Data weather data	⦿
TESPy	Thermal Engineering Systems in Python (TESPy). Powerful simulation toolkit for thermal engineering plants such as power plants, district heating systems or heat pumps	⦿
windpowerlib	Calculate the power output of wind turbines	⦿

Projects in an early state

The following projects are in an early stage of development and might change frequently.

Package	Description	Links
DHNx	District heating system optimisation and simulation models.	⦿

1.2.2 Contributing

Contributions to oemof *Packages* are very welcome! Each of the *Packages* is maintained individually, but in general community-based development is envisaged. This repository is only used for organisational purposes and spans an umbrella across the individual oemof libraries. The source code is published under the conditions of the open source MIT license making sure that the code can be used, edited, and re-distributed by others.

Twice a year (usually May and December) we organise a developer meeting. The meeting dates are announced on wwww.oemof.org.

If you're interested in maintaining oemof libraries more frequently, consider to join a developing teams. Get in touch with us here.