

ASSESSING THE POTENTIAL AND SIMULATING THE USE OF LOAD MANAGEMENT

As power generation from renewable energies is increasing, more flexibility is needed in future to guarantee a stable electricity supply. Besides storage expansion and grid reinforcement, load management is a relevant measure to continually ensure the balancing of power supply and demand. However, assessing the potentials of load management so far has frequently not properly taken account of the different heterogeneous consumer types and their respective demand patterns. The eLOAD model facilitates precise chronological and technological high resolution analyses of potentials and operating modes of load management. The results allow deriving and developing concise business models.



WHAT WE DO

Load management potentials are calculated by means of an hourly cost optimization from the customer's perspective, considering day-ahead price signals and different time variable tariff mechanisms.

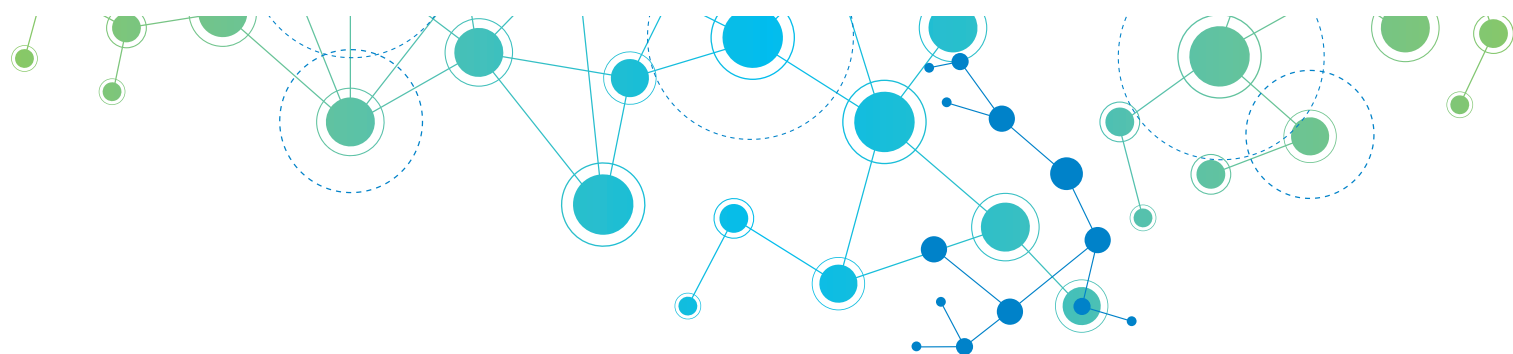
The consumers analyzed include industrial processes, heat and air conditioning applications as well as white goods. For every type of consumer, individual techno-economic restrictions and load curves are considered. Depending on the consumer type electric load can be shed or shifted. A special feature of eLOAD is the modeling of PV self-supply combined with decentralized battery storage systems.

As eLOAD is embedded into an over-arching model cluster, it is possible to assess the effects of load management on the spot market.



OUR SERVICES

- Assessment of application-specific load management potentials under different framework conditions
- Analyses of the effects of different tariff mechanisms on consumers' load management



- Investigations of long-term effects (up to 2050) of load management on the system load and integration of renewable energies.
- Provision of hourly system load time series which have been adjusted for load management as input for your electricity market model.

HOW YOU BENEFIT

The results of the eLOAD model provide information about the relevant present and future load management potentials and appropriate incentive strategies for effective load management. This allows you to identify business models and individual customer groups. You can also get information on potential electricity cost savings by means of load management.

If you want to make use of eLOAD you will profit from a data base with over 1,000 load profiles as well as many years of experience in the field of demand modeling.

Optimized load curve of industrial cooling systems in summer and winter

