Module name	**Optimisation in Modern Electricity Markets**
Module number	CMS-TRK-OMEM
Senior Lecturer	Dr Hannes Hobbie hannes.hobbie@tu-dresden.de
Qualification objectives	Students are able to understand the decision-making behaviour of relevant actors in modern electricity markets and to distinguish appropriate modelling models and formulate them autonomously in appropriate modelling environments. They can assess factors influencing decision-making behaviour by applying advanced optimisation procedures and present and discuss decision-support results in structured texts.
Contents	The content of the module is the safe handling of various methods of Operations Research to support decision-making in selected use cases from the electricity industry and related modelling environments, in particular the General Algebraic Modeling System (GAMS).
Forms of teaching and learning	The module includes lectures of 1 SWS, exercises of 1 SWS and self-study. The teaching language of lectures and exercises may be German or English and will be specifically determined by the teacher at the beginning of each semester and announced in the usual manner.
Eligibility for participation	The skills to be acquired in the CMS-TRK-EPM Electric Power Markets module are assumed.
Usability	In the Masters Course Computational Modeling and Simulation, the module is an optional module in the Track Computational Modeling in Energy Economics, to be selected in accordance with Annex 2 to the Specific Test Rules. The module cannot be chosen in the Master's Course Computational Modeling and Simulation if this or a module with substantially the same content from a Course with which the entry conditions under § 3 of the Studienordnung have been met has already been completed. The module provides the pre-requisites for the modules it designates under the pre-requisites for participation.
Conditions for the award of credits	Credits are awarded when the module test is passed. The module test consists of a portfolio of 80 hours. The language of the test will be English.
Credits and marks	The module allows 5 credit points to be obtained. The module score corresponds to the test performance score.
Frequency of the module	The module is offered every summer semester.
Workload	The total workload is 150 hours.

Duration of the module	The module covers 1 semester.