

Project Fact Sheet

Project Title	FlexIMa – Techno-economic analysis of the future investment framework for flexibilities
Keywords	Flexible consumers, market design, dynamic grid fee, demand side integration, modeling, distribution grid

Project Details

Project Start	2024	Duration	3 Years
Grant Scheme	7 th Energy Research Programme	Project ID	03EI1072B
Funding Authority	Federal Ministry for Economic Affairs and Climate Action		
Project Budget	375,662.06 €		
Project Leader	Prof. Dr.-Ing. Uwe Holzhammer		
Contact Person	Benedikt Hümmer		

Project Partners

Technische Universität Nürnberg (UTN), Institut für Klimaschutz, Energie und Mobilität (IKEM), Regulatory Assistance Project (RAP)

Description

The **FlexIMa** (*'Flexibility into the market'*) project examines how changes in the market environment, market design and the regulatory framework influence the incentives for investment and operating decisions for flexibility and thus have an impact on the overall system. Several possible scenarios are assumed for the market environment, which cover various uncertainties in the transformation of the electricity system. The central research topic of FlexIMa is the definition, design and detailed analysis of suitable scenarios for a market-driven flexibility ramp-up.

The THI sub-project focuses on the detailed techno-economic modelling of flexibilities. With the help of open source modelling tools, operating strategies for flexibility technologies are optimized under different framework conditions from the perspective of the stakeholders and resilient investment strategies are derived from this. In addition, effects on the distribution grid are analyzed and repercussions on the overall system are quantified in close interdisciplinary cooperation.