

**Research Associate (f/m/d)
in the Field of Energy Economics:
“Design of a robust energy system and raw material supply”**

Job description:

Your primary responsibility is to work on interdisciplinary research projects focusing on techno-economic analyses in the context of decarbonization of global energy systems. A specific focus of your research will be on sector-coupled energy system analysis with a focus on a robust design of the energy conversion and transportation infrastructure:

- Development and application of high-resolution geographical models to analyze energy demand and renewable energy generation potentials.
- Analysis of the optimal design and operation of energy conversion, energy transport and energy storage infrastructures.
- Development of methods for analyzing the security of supply of integrated multi-energy systems, taking into account weather and climate influences.
- -Development of approaches for the optimal use of flexibility in the energy system in the context of a supply-secure deployment and expansion planning.
- Publication of results in high-class journals

The position offers the opportunity to pursue a doctoral degree.

Personal qualification:

Required

- University degree (master's or diploma) in industrial engineering, business administration, process engineering, economics, mathematics, computer science, or a comparable field of study
- Interest in performing quantitative analyses on energy topics
- Interest in solving large linear and mixed-integer mathematical optimization problems
- Knowledge/experience in the implementation of computer-aided models and operation research methods is an advantage
- Professional aptitude, a high level of commitment, good self-organization, and good English language skills

Desirable but not a prerequisite

- Domain knowledge
- German language skills

Our Offer:

- An attractive and modern workplace with access to excellent infrastructure at the KIT
- A self-determined and varied job, flexible working time models, and the possibility of mobile work
- The opportunity to network with national and international cooperation partners in science and industry
- A wide range of further training opportunities
- An additional pension (VBL)
- A subsidy for the JobTicket BW

Salary:

Salary category 13 (TV-L E13 of the collective agreement of public service), depending on the fulfillment of professional and personal requirements

Organizational unit:

Karlsruhe Institute of Technology (KIT)

Contract duration:

Limited to 2 years, extension possible if funding allows

Starting date:

As soon as possible

Application deadline:

July 30, 2024

Contact person in line-management:

For further information, please contact Prof. Dr. Wolf Fichtner (wolf.fichtner@kit.edu).

Application:

Please apply online for the job advertisement no. 1269/2024 under <https://www.pse.kit.edu/english/karriere/joboffer.php?id=164125>.

We prefer to balance the number of employees (f/m/d). Therefore, we kindly ask female applicants to apply for this job. Recognized severely disabled persons will be preferred if they are equally qualified.

