

Shape the future of sustainable energy!

Join an interdisciplinary team at KIT working at the interface of meteorology, hydrology, energy research and statistical modeling.

In a new project we aim to address some of the most pressing challenges in the transition to a weather-driven energy system. To support move these ideas forward we are looking for

Two postdoctoral scientists

(Salary category 13 TV-L, depending on the fulfillment of professional and personal requirements) **for two years.**

Your Role

Postdoc 1: Weather and energy security

- Analyze **trends in occurrence, duration, and spatial extent of energy-relevant weather situations**—e.g. periods of low wind and solar power generation, and their impact on the European energy grid.
- Quantify historical patterns and apply **machine learning** to identify drivers and to project future risks.

Postdoc 2: Drought, water temperature and power plant operation

- Investigate **how droughts and rising water temperatures affect power plant operations and the European energy grid.**
- Collaborate with the EU Joint Research Centre to apply and further develop state-of-the-art integrated hydrological models (Lisflood) for simulating water flow and temperature and its effect on power supply at the European scale.

Shared Responsibilities (both positions)

- Write and contribute to related **publications.**
- Support preparation of a related **grant proposal.**
- Organize **project and consortium meetings.**
- Co-supervise **Master's theses** and mentor early-career researchers.

What We Offer

- A **stimulating, interdisciplinary environment** at one of Europe's leading research institutions.
- **International collaboration** with top partners.
- Opportunities for **career development**, including proposal writing and leadership experience.
- A **family-friendly workplace** with flexible working hours and support for work-life balance.
- An **inclusive and supportive team culture** that values diverse perspectives.

Your Profile

(don't hesitate to apply – enthusiasm can compensate some gaps)

- Very good PhD in **environmental sciences, computer science, energy systems, statistics, geography, hydrology, meteorology, applied mathematics**, or related fields.
- Strong programming and modeling skills.
- At least two first-author papers in international scientific journals.
- Experience with **machine learning and modeling methods** is an advantage.
- Excellent communication skills and ability to work in an interdisciplinary team.
- Motivation to contribute to **sustainable energy solutions**.

We **strongly encourage women and members of underrepresented groups** to apply. KIT is committed to equal opportunities and diversity. We believe that **diverse teams drive innovation and excellence**. Part-time arrangements are possible.

Application deadline: 7 Dec 2025. Applications will be screened continuously until the positions are filled.

How to apply: Please send your CV, a letter of motivation, and contact details of two referees in one pdf file to sekretariat@imk-asf.kit.edu using the words “energy meteorology” in the subject field. Address any questions to jan.cermak@kit.edu.

Karlsruhe Institute of Technology (KIT) is one of the biggest research institutions worldwide and has access to state-of-the art research facilities resulting from the merger of the National Research Centre of the Helmholtz Association and the former Technical University. For the atmospheric sciences in particular, KIT is one of the highest-ranked institutions in Europe and offers a vibrant and exciting environment full of opportunities.