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**Institute of Energy Systems and
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Energy Economics Group

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Vienna, 3 January 2025

Vacant PhD Position (4 years, full time)

Energy economic risk assessment of building retrofits through modelling and data analysis

About Us: Embark on an exciting journey with TU Wien's Energy Economics Group. At the forefront of the energy transition, we're unraveling complexities across sectors and regions to pave the way for a sustainable energy landscape.

The Energy Economics Group at Faculty of Electrical Engineering and Information Technology at TU Wien has been working together with many renowned international universities and research groups for more than 20 years, making valuable contributions to decision-making in the urgently needed decarbonisation of the energy systems.

Position Overview: Decarbonising the energy demand of buildings is a key objective and requirement for achieving climate neutrality. Still, building retrofit measures such as building insulation or heating system replacement are subject to technical and financial uncertainty, e.g. regarding expected savings, technical implementation, future energy prices and costs of the measures. This uncertainty and the associated risk are key barriers to a greater uptake of decarbonisation and efficiency measures. This position aims to provide new insights on how to disentangle the uncertainty components of building retrofit measures and how to integrate them into the energy economic assessment at the level of individual buildings and building portfolios. This will involve mathematical simulation, optimisation and analysis of metered energy consumption data.

Why Choose Us: As part of our team, you'll enjoy:

- Engagement in impactful research within a dynamic, enthusiastic team
- Autonomy and responsibility over your research work
- Participation in national and international projects, seminars and conferences
- Opportunities for global collaborations with partners
- Comprehensive training tailored to your doctoral studies
- Full-time employment status

Qualifications: We're seeking candidates with:

- A master degree in technical, natural sciences, economics or related fields
- A strong interest in energy economics and the decarbonisation of energy systems in buildings
- Proficiency in programming languages such as Python, R, Julia, GAMS, etc.
- Experience and skills in data analysis methods
- Willingness to produce high-quality publications.
- Strong command of English
- Proficiency in German (advantageous but not mandatory)
- Organisational skills, structured way of working
- A collaborative and team-oriented mindset

Salary:

Year 1: 47,258 Euro per year.

Year 2-4: 56,710 Euro per year in case of positive evaluation

Application Details: To apply, please send your application documents to lukas.kranzl@tuwien.ac.at by 12 February:

- A motivational letter reflecting your enthusiasm for the field
- References highlighting skills and experience relevant to the position
- A comprehensive CV

We look forward to welcoming a motivated individual to our team as we work together to drive progress in the exciting field of future energy systems.