



**UNIVERSITÉ
DE GENÈVE**

**INSTITUT DES SCIENCES
DE L'ENVIRONNEMENT**

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University of Geneva, Institute for Environmental Sciences, Energy Group

At the Institute for Environmental Sciences there are vacancies for a

Junior Researcher (Ph.D. student) and a Senior Researcher (post-doc)

on the increased efficiency of using electricity/fuels in buildings.

The successful applicants will become members of the Energy Group within the Institute F.-A. Forel, Faculty of Sciences and they will be housed within the inter-faculty Institute for Environmental Sciences (ISE, <http://www.unige.ch/environnement>) that is active in cross-disciplinary research in the domains of energy, climate change, surface waters and urban ecology as well as sustainability. The institute offers an enthusiastic, dynamic and international working environment. It offers an interdisciplinary Master programme in Environmental Sciences (MUSE) with a track on Energy to which the successful candidates will contribute.

Project and job description:

While the increased use of renewable energy and the abatement of greenhouse gasses have been actively pursued by energy and climate policies for some 20 years, energy efficiency has been given a more important role only recently. Important milestones are the European Union's Energy Efficiency Directive and Switzerland's Energy Strategy 2050. According to the latter, electricity use shall be reduced by 10% until 2050 which is a very challenging goal considering population growth and structural changes favouring increased application of electricity. Against this background the objective of the positions at the University of Geneva is to study in detail the current level of energy efficiency and the potentials for energy savings in Switzerland. Apart from residential buildings also the commercial sector and selected public services will be included. The bottom-up analysis is expected to lead to so-called cost-supply curves of energy efficiency measures for Switzerland. Moreover, different tariff designs aimed for maximising energy savings will be studied. In a first step, the prime focus of the research, which is purely desktop-based, will be on measures for saving electricity, thereby covering both the short term and the medium term. At a later stage, savings of fuel use will also be included.

Requirements:

The positions are linked to two projects: The post-doc position is funded by the Swiss Competence Center for Energy Research (SCCER-CREST) and the research will be conducted in collaboration with the project partners and the local energy utility. The Ph.D. position is funded by the Swiss National Science Foundation and the research will be conducted in collaboration with the Center of Affective Sciences at University of Geneva and with the local energy utility.

The two positions offer unique opportunities to further develop a wide range of analytic skills, presentation and reporting skills and networking in a cutting-edge R&D area that is essential for the energy transition, nationally and internationally. Candidates should have a M.Sc. (or Ph.D.) degree in physics, engineering and/or environmental sciences and they must be able to combine thorough technical understanding with economic assessment and broader aspects of the energy transition.

Excellent knowledge of English is a necessity and good knowledge of German and/or French is an advantage.

Conditions of employment:

We offer a three-year appointment (with further extension planned) for the Ph.D. position and a two-year appointment (likewise with further extension planned) for the post-doc position. The salary will be in accordance with the regulations at the University of Geneva.

Interested applicants are requested to send a letter describing their motivation and competences next to an up-to-date CV with transcripts (course load and grades). Applications should be sent by email to **maxime.raynaud@cuepe.ch**. The announcement remains valid until qualified candidates have been found.

More information about the position can be obtained from Prof. Martin Patel (martin.patel@unige.ch) or Dr. Maxime Raynaud (maxime.raynaud@cuepe.ch).