# PhD and PostDoc positions in renewable energy modeling at the University of Geneva, Switzerland

## Background

Renewable Energy Systems group, led by Prof. Evelina Trutnevyte, at the University of Geneva is looking to fill multiple PhD and/or PostDoc positions in energy systems modeling with the focus on renewable energy. Located at the Faculty of Science and at the interfaculty Institute for Environmental Sciences, the Renewable Energy Systems group has three strategic research themes. First, it uses mathematical modeling and technology assessment tools in order to inform transition to renewable energy systems at all spatial scales, from neighborhoods and cities to countries and continents. Second, the group works with multi-disciplinary methods for improving quantitative long-range energy foresight for decision making under deep uncertainty. Third, the group searches for system-level socio-technical energy solutions that are techno-economically feasible, environmentally desirable, as well as acceptable and realistically implementable in society. The scientific work in the group regularly involves interactions with practitioners outside academia, including policy makers, stakeholders, and the wider public.

The successful PhD and/or PostDoc candidates will conduct their research in one of the three country-wide consortium projects, funded by the Swiss Energy Research for the Energy Transition program SWEET: (i) EDGE project with the focus on very high shares of renewable energy in Switzerland, (ii) SURE project with the focus on sustainability and resilience assessment of the Swiss energy system, and (iii) PATHFNDR project with the focus on flexibility and sector coupling in the Swiss energy system. In particular, the successful candidates will work in these areas:

- Spatially-explicit, optimization-based modeling of renewable energy production and its integration in the whole energy system ;
- Spatial statistical analysis and statistical modeling of renewable energy uptake ;
- Energy systems modeling with equity considerations, including quantification of distributional impacts across household groups and key actors ;
- Modeling of microgrids with the focus on their spatial uptake and uncertainty;
- Whole systems modeling with the focus on deep uncertainty.

The successful candidates will share the vision of modeling-based multi-disciplinary work at science-society interface that the Renewable Energy Systems group is conducting. The group's website and publications are examples of such work.

In return, the Renewable Energy Systems group provides a stimulating and innovative research environment to work on some of today's most pressing societal challenges –

energy and climate change. The city of Geneva takes pioneering action in promoting renewable energy as well as hosts multiple international organizations that foster global transition. The Renewable Energy Systems group offers excellent conditions for PhD and Postdoc students, including a competitive salary as well as funds for travel and further education. The city of Geneva consistently ranks among the most attractive cities worldwide to live.

**Application process and requirements**

In order to qualify for the positions, the candidates are required to have:

- Completed or nearly completed Master's or PhD degree;
- Proven knowledge of energy technology, energy systems modeling, or energy economics. Candidates from other fields will be considered if they demonstrate relevant quantitative modeling skills;
- Interest in developing energy models and working with spatial data and statistics in a multi-disciplinary environment that specializes in socio-technical dimensions of energy and climate change;
- Familiarity with Swiss and European energy discussions and policies;
- Peer-reviewed journal publications as first author (for Postdoc applicants);
- Excellent English skills in understanding, speaking, and writing;
- French or German skills are an advantage.

Please send your application to job-res@unige.ch. The applications shall include:

- Motivation letter in English;
- CV;
- Recommendation letters or work certificates of two referees; the letters can be submitted by the candidate directly or can be sent by the referees to the email address above;
- Sample document of academic writing in English, e.g. peer-reviewed publication as first author, Master thesis, semester thesis;
- Scanned copy of the Master's degree diploma with grades (for both PostDoc and PhD candidates). In the case of nearly completed Master's degree, the latest transcript of grades should be submitted;
- A short note on where you learnt about the open position.

If the size of the email exceeds 10 MB, only the motivation letter and CV shall be included in the email as well as a link for downloading the rest of the documents, e.g. Dropbox.

**The first deadline of applications will close on Monday, 3 October 2021**. Further applications may be accepted because the positions will stay open until the suitable candidates are found. The starting date will be mutually agreed on. The successful candidates from outside Switzerland and European Union should count with additional 4-6 months for receiving their residence permit.

For questions, please send an email to job-res@unige.ch.