

PhD or PostDoc position in uncertainty modeling for long-range energy scenarios 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 a PhD or PostDoc position in uncertainty modeling for long-range energy scenarios. Located at the Faculty of Science and at the interfaculty Institute for Environmental Sciences, 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 or PostDoc candidate will work on uncertainty quantification in energy system models in the project “Accuracy of long-range national energy projections.” The project challenges the common assumption that accuracy cannot be improved when modeling long-range national energy scenarios for policy support. Using extensive retrospective and prospective modeling of energy systems in all European countries, the project collects first-of-the-kind generalizable empirical evidence to define new accuracy benchmarks in energy system models and provides novel concepts and modeling tools to achieve these benchmarks.

The successful candidate 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 candidates, 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 advanced uncertainty analysis, such as global sensitivity analysis, scenario discovery, machine learning methods, statistical forecasting, and others;
- Knowledge of modeling energy systems at a national or global scale;
- 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 use the following link to apply: [Apply here - uncertainty](#)

(Or please send an email to job-res@unige.ch with a subject: [Uncertainty_UniGEjob](#))

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 PhD candidates only). In the case of nearly completed Master's degree, the latest transcript of grades should be submitted;
- The email's subject should indicate the title of the position that you are applying to;
- 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, 11 April 2022. Further applications may be accepted because the positions will stay open until the suitable candidate is 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 [Apply here - uncertainty](#)

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