

Deadline: Until filled



APPLY 22/2021

# Research Scholar/Modeler in behavioral climate change mitigation

IIASA ENERGY, CLIMATE, AND ENVIRONMENT (ECE) PROGRAM

## BACKGROUND

As one of the leading global Integrated Assessment Modeling (IAM) teams, the IIASA **Energy, Climate, and Environment (ECE) Program** is deepening the understanding of rapid, just, and feasible systems transformations toward environmental, social, and economic sustainability. Changing human behavior around energy consumption is increasingly recognized as important aspect of this transformation. The candidate will join a world-leading group focused on studying salient trade-offs and synergies between multiple policy priorities and objectives across different sectors. Building upon a long tradition at IIASA going back to its foundation, ECE's modeling tools stand at the heart of the IIASA Integrated Assessment framework, exploring linked solutions for energy, food, land, and water.

The successful candidate will join an interdisciplinary team analyzing issues around energy demand across multiple sectors in the context of climate change and broader sustainable development challenges. Their research will focus on modeling behavioral changes across buildings, transport and consumer products, socio-technical transitions and greenhouse gas mitigation. They will work in the context of the open source **MESSAGE*x*** model and its extensions, focusing on behavioral change as entry points to greenhouse gas mitigation. The purpose of the research is to inform international policy efforts, such as those related to the Paris Agreement or the Sustainable Development Goals and assess synergies and trade-offs between them. The successful applicant, among other things, is expected to contribute to ongoing projects at IIASA, such as **ENGAGE**, **NAVIGATE**, the **Low Energy Demand (LED) study** and develop novel methodologies for analyzing behavioral change in relation to energy consumption.

## MAIN TASKS AND RESPONSIBILITIES

- Develop new conceptual models of behavioral change related to climate change mitigation, including identification of relevant variables, methods, indicators, and necessary datasets.
- Co-use and co-develop a complex integrated assessment model and apply the tool to respond to different research questions.
- Processing of large volumes data related to consumer behaviors and preference.
- Produce visualizations and maps to check results and communicate findings.
- Develop and document version-controlled collaborative modeling code that allows to re-process data and

analyze datasets and model results.

- Present methods and results to technical and non-technical audiences.
- Write up findings into reports and scientific papers.
- Contribute to ongoing and future projects, and participate in external fundraising initiatives, to analyze energy and transport sector transitions and their implication for broader sustainable development issues.
- In line with the team spirit that prevails at IIASA, the incumbent may occasionally work on other tasks assigned by their superiors, that might not be directly related to this appointment but where the post holder has relevant experience and skills, and/or a shortage of immediate personnel capabilities requires such.

## SKILLS, QUALIFICATIONS AND EXPERIENCE

- PhD degree (or equivalent qualification plus research experience in energy economics, social sciences or a related field).
- Experience with agent-based modeling and/or integrated assessment modeling essential.
- Systematic understanding of and hands-on experience with detailed behavioral modeling, ideally accounting for the evolution of consumer heterogeneity, is important.
- Domain knowledge on behavioral change in the context of greenhouse gas mitigation and possessing the skills relevant for modeling the evolution of consumer preferences is highly desired.
- Experience with quantitative modeling and programming skills in Python, R and/or GAMS are essential, as the ECE program is developing its modeling tools using these programming languages (cf. MESSAGEix documentation).
- IIASA offers an interdisciplinary and international workplace, and the possibility to interact with researchers of different nationalities, with strong ties to a world-wide network of research institutions engaged in environmental systems research. The successful candidate must be able to work in, and have respect for, an intercultural environment.

## APPOINTMENT TERMS

The selected candidate should be available to take up the position in October 2021 or as soon as possible thereafter. We offer an initial fixed-term, full-time (40 hours per week) employment contract for one year, with the possibility of extension thereafter. Applicants wishing to work part-time hours will also be considered.

Duties will be carried out at the IIASA premises in Laxenburg, near Vienna in Austria.

The corresponding profile for this opportunity is **R2** according to the [IIASA researcher profiles for research careers](#). IIASA does however, reserve the right to hire a researcher with a lower profile, and at a corresponding lower salary than the minimum stated below, if the qualifications and professional experience of the selected candidate do not meet the criteria described in the researcher profiles adequately.

### WE OFFER:

A **minimum** gross annual salary of EUR 43,000.00 (full-time), which is exempt from income tax [in Austria](#).

The advertised salary is:

- Negotiable, based on the qualifications, skills and experience of the selected individual.
- Subject to deductions for health insurance and/or social security.
- Not directly comparable with other employers in Austria, due to the unique legal status and privileges granted to IIASA.
- Subject to the principle of income aggregation (Progressionsvorbehalt in German).

### IN ADDITION:

- Educational subsidies for children of school age enrolled in private schools in Austria.
- A generous annual leave allowance.
- Moving and settlement allowances and paid home

leave for employees in scientific and professional categories hired from international locations.

- Assistance for newcomers to Austria with visa, work and residency permit applications.
- Support finding accommodation in Austria.

Further details [here](#).

## About IIASA

IIASA is committed to a working environment that promotes equality, diversity, tolerance and inclusion within its workforce. This is reflected in our [Core Values](#). We encourage qualified candidates, irrespective of gender, from all religious, ethnic, and social backgrounds to apply. In the case that candidates are equally qualified, preference will be given to applicants from countries where IIASA has a [National Member Organization](#) (NMO).

## Further Information

For further information about this opportunity please contact:

[Dr. Bas van Ruijven](#), Research Group Leader, Sustainable Service Systems (S3) Research Group

For general information about working at IIASA, please contact:

[Ms. Alia Harrison](#), Recruitment Coordinator

## Applications

To apply for this opportunity, you will need to provide the following documents in English:

- A cover letter outlining your motivation for and fit to the position
- A detailed Curriculum Vitae
- The names, addresses (including e-mail), and telephone numbers of two work-related reference givers.

Deadline for receipt of applications: Until filled

**APPLY**