

PhD position in Spatially explicit assessment of impacts of wind power deployment (1.0 FTE)

Job description

While wind power is one of the fastest growing, most mature and cost-competitive renewable energy technologies, its deployment faces significant challenges due to low acceptance amongst societal actors. Factors such as restrictive regulation, disinformation, misinformation and concerns about changes to scenic landscapes, negative impacts on biodiversity, ecosystems and health impede the spread of new wind power installations. A consortium of 16 institutions across Europe has put together the Horizon Europe project WIMBY, "Wind in My Backyard." The goal of the project is to increase acceptance, counterbalance "Not in my backyard" (NIMBY) effects and foster support for wind power. Thereby the project enables its contribution to the decarbonization strategy of the EU, using holistic modelling tools to advance social awareness and engagement on large wind power installations in the EU. The project translates the results of cutting-edge in-depth models to assess impacts, conflicts, synergies and potentials for development of wind power into practical information for stakeholders. WIMBY follows a citizens' science approach for dissemination supported through a Web-GIS interactive forum that improves upon the content and functionality of the New European Wind Atlas.

In the context of this project, the group of Energy & Resources of the Copernicus Institute of Sustainable Development at Utrecht University is looking for a PhD candidate for a fully funded four-years position under the supervision of Dr. Luis Ramirez Camargo and Prof. Madeleine Gibescu. The tasks are as follows:

- Supporting multiple spatially explicit impact assessments of wind power. These will be performed in high resolution for four selected case studies in Austria, Italy, Portugal and Norway and in a lower resolution for the European scale. The assessments include impacts such as job creation, and light and shadows impacts of wind turbines on populated areas but the researcher is welcome to be involved in other technical, economic, social or ecological assessments (based on background and interest).
- Developing the data back end of the project's Web-GIS interactive forum while ensuring that all generated and provided spatially explicit data and metadata are aligned with INSPIRE technical guidelines (INSPIRE Directive 2007/2/EC) and fulfill the FAIR principles. The process includes the selection of formats that provide the best compromise between wide use, storage size, performance, and suitability to homogenize the results of all assessments in the project.
- Contributing to the assessment of synergies and trade-offs between diverse aspects of wind energy considered in the project. These should lead to a concrete set of recommendations to foster wind power aimed at researchers, planners and policymakers.

While the tasks in WIMBY have to be completed as they are proposed, you will have the opportunity to decide where you would like to put the emphasis for your PhD thesis (depending on your background and interests). The options can be developed in close cooperation with particular experts in the project consortium. The options include research related to social, legal, ecological, and land/sea-use impacts of wind power deployment as well as modelling and optimization of energy systems ranging from individual wind parks to the integration of wind power at the continental level.

Qualifications

The ideal candidate:

- holds a master degree in geoinformatics, geography, computer science, energy science, environmental engineering or in a relevant science subject area with an affinity for spatial analysis/GIS and programming;
- has experience dealing with large and complex data sets. Being familiar with [INSPIRE](#) technical guidelines as well as [FAIR](#) data principles is an advantage;
- has knowledge and interest in the energy transition. Having detailed knowledge and/or experience related to planning or implementing wind power projects is a plus;
- is able to work in an interdisciplinary team spread across Europe, and interact with a wide range of stakeholders (from citizens opposing wind power installations to industries responsible for large wind power projects);
- has an excellent English proficiency (C1). Language proficiency in German, Italian, Portuguese and/or Norwegian is also an asset.

Offer

You will be offered a temporary position (1.0 FTE), initially for one year with an extension to a total of four years upon a successful assessment in the first year, and with the specific intent that it results in a doctorate within this period. The gross salary ranges between €2,541 in the first year and €3,247 in the fourth year of employment (scale P according to the Collective Labour Agreement Dutch Universities) per month for a full-time employment. Salaries are supplemented with a holiday bonus of 8% and a year-end bonus of 8.3% per year.

In addition, Utrecht University offers excellent [secondary conditions](#), including an attractive retirement scheme, (partly paid) parental leave and flexible employment conditions (multiple choice model). For more information, please visit [working at Utrecht University](#).

About the organization

A better future for everyone. This ambition motivates our scientists in executing their leading research and inspiring teaching. At [Utrecht University](#), the various disciplines collaborate intensively towards major societal themes. Our focus is on Dynamics of Youth, Institutions for Open Societies, Life Sciences and Sustainability.

Utrecht University's [Faculty of Geosciences](#) studies the Earth: from the Earth's core to its surface, including man's spatial and material utilisation of the Earth - always with a focus on sustainability and innovation. With 3,400 students (BSc and MSc) and 720 staff, the faculty is a strong and challenging organisation. The Faculty of Geosciences is organised in four Departments: Earth Sciences, Human Geography & Spatial Planning, Physical Geography, and Sustainable Development.

Additional information

For more information about this position, please contact [Dr. Luis Ramirez Camargo](#) (Assistant Professor) via l.e.ramirezcamargo@uu.nl.

Apply

Everyone deserves to feel at home at our university. We welcome employees with a wide variety of backgrounds and perspectives.

To apply, please send your curriculum vitae, including a letter of motivation via the 'apply' button.

Please also include the following documents:

- transcript of records (Master's degree);
- contact details of 2 referees.

The position can be started at earliest convenience but no later than March 2023.