

Environment and Natural Hazards – EDF Energy R&D UK Centre

EDF Energy are excited to host a placement under the 2017 NERC-funded Innovation Placements call. The placement will be expected to spend between 80% and 100% of their time embedded within the EDF Energy R&D UK Centre in London.

EDF Energy is one of the UK's largest energy companies and its largest producer of low-carbon electricity. A wholly-owned subsidiary of EDF Group, one of Europe's largest energy groups, we generate around one fifth of the UK's electricity. Our research and development activities are an integral part of the company, creating value and supporting future growth. The environment and natural hazards team provide support to the EDF Energy Nuclear Generation teams by providing reviews of the best practice and applying new approaches in the field of natural hazard characterisation. We also work with Nuclear New Build teams to ensure an optimal design of future nuclear power plants by understanding the occurrence probability of different natural hazards and how this may alter with future climate change. We provide expertise to renewable energy teams within the UK Centre on the occurrence of extreme winds and sea states and work closely with researchers and operators within EDF group in France and China.

We are looking for researchers with expertise and interests in any of the following areas:

- Lightning** - we are particularly interested in potential theoretical limits on strike intensity, the effect of climate change on the future strike intensity and spatial distribution of strikes.
- Snow** - we are interested in potential changes in snow depths and loads across the UK with future climate change.
- Extreme winds** - we are interested in the sting jet phenomena which cause very extreme local wind speeds. In particular, we are interested in the duration of such events and how to include them within our risk estimates.
- Frazil ice** - we are interested in learning more about the potential occurrence of frazil ice at coastal locations around the UK.
- Potential physical limits** for different natural hazards (e.g. precipitation, temperature, wind speeds) and how these could be incorporated into our statistical analyses (through extreme value statistics or equivalent methods).

Candidates will be expected to disseminate information to other members of the R&D department and engineers working within Nuclear Generation and Nuclear New Build through technical reports and presentations. A good knowledge of statistics will also be useful to help translate any findings into useful output for the R&D department.

Any successful project could run for up to 12 months starting in Summer/Autumn 2017. The final project proposal will be developed in conjunction with the relevant member of the Environment and Natural Hazards group within the EDF Energy R&D UK Centre.

Application process:

Applications are advised to register interest by **31st May 2017** to allow for the refinement of any proposal. In early June, the Environment and Natural Hazards group will decide internally about which proposals to support and contact successful applicants. These

applicants will then need to provide a full funding proposal to be submitted to NERC by 16:00 on **29th June 2017**.

If you are interested in developing a proposal on any of the topics above, then please contact Dr Hugo Winter using the contact information below.

A Letter of Support is required from EDF Energy.

Contact:

For queries about this call, please contact:

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For technical queries regarding the content of the Placement at EDF Energy, please contact:

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