



UKRI policy fellowships 2026

Fellowship position

Fellowship title:

DESNZ quantifying compound and cascading hazards to support climate resilience fellowship

Fellowship type:

Natural hazards and resilience fellowship

Host organisation:

[Department for Energy Security & Net Zero](#)

Host team:

Climate Science (Chief Scientific Advisor: Science Strategy and Advice Group)

Academic discipline/s:

Climate science, climate resilience, climate modelling, atmospheric science

Summary:

Opportunity to develop and apply scientific expertise to enhance the evidence base and inform policymaking for a climate-resilient transition to net zero.

Policy topic:

Climate change adaptation and mitigation, cascading and compound risks, Clean Energy Mission, Research and Innovation.

Research career stage:

Open to early and mid-career researchers

Fellowship structure

The fellowship is estimated to begin in May 2027. The exact date will be confirmed by the host depending on onboarding and security clearance requirements. The fellowship will have three phases:

- inception: duration is 3 months at 0.4 FTE
- main placement: duration is 12 months at 0.6-1 FTE
- knowledge exchange: duration is 3 months at 0.4 FTE

Work arrangements

Location requirements:

The role can be based in any of the DESNZ offices in London, Salford, Birmingham, Cardiff, Darlington, Edinburgh. Project leads are based in Edinburgh and Salford. There may occasionally be some requirement to travel to meet other team members, this is expected to be approximately four times per year.

Hybrid working:

DESNZ operate a hybrid working model with a mix of office and home working. While DESNZ has a two to three days per week minimum office working requirement in line with the rest of the UK Civil Service, we would be content for a minimum two to four days per month, at any location listed above, just during the main placement phase. We will discuss suitable working arrangements with the successful fellow.

A laptop will be provided enabling work from home or other sites, providing access to host systems. Eligible travel and subsistence costs are supported in the main UKRI grant. Please see full call text and guidance for more details.

Security clearance and nationality eligibility criteria:

Baseline Personnel Security Standard (BPSS) is required, which usually takes around six weeks. The inception phase can begin before BPSS is complete, but the fellow will only receive DESNZ IT access once security clearance is complete. We would expect the successful applicant to start the security clearance application process, with support from the host team, as soon as their fellowship has been confirmed by UKRI. Please see [national security vetting: clearance levels](#) for more information.

This post is subject to the [Civil Service's nationality requirements](#). Nationality checks will be conducted at interview stage.

Fellowship position description

Making the UK a clean energy superpower and accelerating to net zero is a priority for the UK government and Department for Energy Security & Net Zero (DESNZ). This will require a rapid transformation of the energy system to deliver energy security, economic growth and a just and orderly transition away from fossil fuels. We are already experiencing impacts from climate change, such as extreme weather events, and these events are predicted to become more frequent and intense. This will create risks for critical national infrastructure and will impact the supply of energy from renewable energy sources and demand for energy for heating and cooling. It is critical that climate resilience is embedded into our plans for a clean power transition, however key scientific evidence gaps remain on the drivers and evolution of climate hazards relevant to the energy sector, particularly compound and cascading hazards (evidence gaps identified in the [Climate Adaptation Research and Innovation Framework](#)). The fellow will build the evidence base for a more climate-resilient energy system, by improving our understanding of cascading and compound hazards, and contribute to wider climate and energy security initiatives.

The fellow will be embedded into the climate science team in DESNZ who will support them to deliver policy-relevant, cutting-edge research that will contribute to building energy system resilience. The Climate Science team deliver targeted scientific advice, evidence and analysis to policy teams within DESNZ across a range of topics including climate change mitigation (land use, bioenergy, hydrogen, greenhouse gas removals), climate resilience (including research to support adaptation solutions). The successful fellow will work with the Climate Science Capability workstream, who are responsible for developing our understanding on the fundamental science of climate change and who oversee the Met Office Hadley Centre Climate Programme, and the Climate Resilience workstream, which delivers scientific evidence to embed climate resilience across DESNZ, including delivery of the Climate Science for a Net-Zero World 2 (CS-NOW 2) research programme.

There will be a strong element of co-development with policy teams as part of this fellowship opportunity. The fellow will be supported to build a comprehensive network of climate resilience stakeholders across government and externally, contribute to wider resilience assessments and will provide an avenue for DESNZ to benefit from insights and expertise from across their academic networks.

The fellow will be supported to help develop a strong network of climate resilience stakeholders and will have the opportunity to carry out original research. Details of the project, including which climate hazards the research will focus on, will be co-developed at the inception stage taking into account the expertise of the fellow and progress in other research programmes delivered by the team.

While the role will be tailored to the fellow, it could include research on:

- the drivers and characteristics of compound and cascading hazards and/or unprecedented climate events in the UK or internationally
- quantifying the likelihood of occurrence of compound and cascading hazards in the present climate and under a range of future warming scenarios, and associated uncertainties
- developing methods to combine and/or interpret climate information sources across timescales (e.g. from present day to seasonal and multidecadal) to inform our understanding of how risks from compound and cascading hazards will evolve with time
- developing approaches to decision-making under deep uncertainty

To ensure the relevance of the research to DESNZ, it should be designed to look at hazards in the present day and over the lifetime of energy infrastructure and Net Zero pathways (approximately 20-50 years into the future).

The research should also be tailored to conditions relevant to energy security, and could inform:

- assessments of the resilience of UK energy and mitigation pathways (such as the Clean Energy Mission and Net Zero pathway) to climate change
- qualitative or quantitative stress testing of the future energy system, or mitigation pathways (e.g. Net Zero 2050), under complex and compound hazards and shocks
- cross-sector resilience mapping and modelling (e.g. water system reliance for cooling and hydrogen production, digital communications for system operation)
- assessments of how global climate impacts influence UK climate and energy security

This is an exciting opportunity to work at the science-policy interface in a friendly and supportive team, carrying out high-impact research on cascading risks or high-impact low-likelihood events that will directly inform how we deliver Clean Power by 2030 and how the energy sector manages and adapts to the impacts of climate change.

Benefits to the fellow will include:

- an understanding of the breadth of science and innovation developments that underpin the delivery of the Clean Energy Mission and priority fundamental science evidence gaps and barriers
- access to a wide network of government scientists and policymakers
- the opportunity to undertake original research with a clear route to impact
- we will support the fellow not only in delivering academic outputs, such as peer-reviewed journal articles, but also in evidencing how their work has informed and influenced policy
- opportunities for dissemination of research to policy teams in the department and other government departments and stakeholders where relevant, through delivery of briefings, workshops and teach-ins, to support the embedding of climate risk into policy development

Person specification

Applications will be assessed by UKRI panel assessment against the following essential opportunity-specific requirements in addition to the generic eligibility and call criteria.

Essential criteria:

- proven academic track record and subject matter expertise in climate science, particularly relating to natural hazards and their impacts in the UK and Europe
- expertise in climate modelling or observations and their application to quantifying climate hazards and risks
- ability to engage with a variety of stakeholders with different technical backgrounds, including communicating complex topics and managing a diverse set of views and sensitivities

Applicants shortlisted from the panel assessment will be invited to a host led interview. At this stage the host will also take into account the following desirable fellowship-specific requirements.

Desirable criteria:

- knowledge of climate risks to the energy sector
- experience in methods to communicate uncertainty

Processing personal data

If applicants are shortlisted by the UKRI assessment panel UKRI will need to share the application and any personal information that it contains with the host for the host led interview selection process.

Your personal data will be handled in line with UK data protection legislation and managed securely. If you would like to know more, including how to exercise your Rights, please see the UKRI [privacy notice](#).

Please see the Hosts' [privacy notice](#) and they will delete your data at the end of the selection process unless you are successful, in which case we will retain your data as an independent data controller.