UKRI policy fellowships 2027

Fellowship position

Fellowship title:

DESNZ AI risks to energy security fellowship

Fellowship type:

Core policy fellowship

Host organisation:

Department for Energy Security and Net Zero

Host team:

AI Policy Team and Chief Scientific Adviser's Office (CSAO)

Academic discipline/s:

Artificial intelligence (AI), cyber security, risk analysis, resilience engineering, and science and technology policy

Summary:

This fellowship provides the opportunity to build the evidence base to inform how government can identify, assess and mitigate risks arising from AI to energy systems and critical infrastructure while supporting the safe adoption of AI across the energy sector.

Policy topic:

This fellowship will support DESNZ's priorities of delivering Clean Power by 2030 and accelerating to Net Zero, contribute to DESNZ's ambition for an AI-enabled clean energy system and the Industrial Strategy's Clean Energy Industries and Digital and Technologies: Artificial Intelligence Sectors.

Research career stage:

Open to early and mid-career researchers

Fellowship structure

The fellowship is scheduled to begin on 1 October 2027 subject to 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 DESNZ office; the AI Policy team and CSA Office have members in London, Salford and Edinburgh, while the department overall has a significant presence in Aberdeen, Birmingham, Cardiff and Darlington. There may be a requirement to travel to meet other team members, counterparts in other departments, and for events.

Hybrid working:

While DESNZ has a two-days-per-week minimum office working requirement, we would be content for the Policy Fellow to do a minimum one day per week in their chosen office (at any location listed above) during the main placement phase. A DESNZ laptop will be provided, enabling work from home or other sites, and providing access to host systems. In addition to office attendance, it would be useful to budget for travel to London (if not already based there) around four times in the placement year and once in the inception phase. 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:

A Security Check is required and the length of time to complete the process will vary from person to person. We 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. The Inception phase can begin before the security clearance process is completed, but clearance will be required before the main placement phase. The Civil Service also has nationality requirements that candidates will need to meet in to take up the post. See the civil service recruitment nationality rules for further information. Candidates should check these requirements before applying to ensure they meet the eligibility criteria.

Fellowship position description

Overview:

The UK's energy system is becoming increasingly digitalised, interconnected and data-driven. At the same time, advances in AI are creating new opportunities to improve system performance, resilience and decision-making, while creating potential cyber, operational and systemic risks. The Department for Energy Security and Net Zero (DESNZ) has recently published the Government's vision for an AI-Enabled Clean Energy System.

DESNZ is seeking a Policy Fellow to strengthen the evidence base on the risks and opportunities arising from using artificial intelligence (AI) systems in energy systems and infrastructure. The fellowship will be hosted jointly by the AI Policy Team and the Chief Scientific Adviser's Office and will provide an opportunity to undertake original research while working with civil servants working in science, technology and policy.

Research Areas and Policy Challenges:

The fellow will co-design the programme of work, which will focus on identifying and assessing emerging AI-related risks to energy systems and critical infrastructure, with DESNZ during the inception phase. The precise focus depending on departmental priorities and the fellow's expertise and interests. Research areas could include:

- identifying and assessing emerging risks arising from the use of AI within the energy system
- how AI may amplify cyber, operational and systemic threats to the energy system

- reviewing and comparing international approaches to AI risk management, governance and resilience
- development of frameworks to support risk prioritisation, management and policy development

Collaboration and Co-Design

The fellow will have opportunities to engage with a range of evidence sources, research programmes, and stakeholders, including policy, scientific, cyber, resilience and security colleagues across DESNZ and wider government, including the AI Security Institute. They will be encouraged to used engagement with experts to help shape the research and identify areas where independent analysis can provide the greatest value to policy development. This could include providing expert advice to seniors, delivering research reports on a specific areas, or the development of written guidance/frameworks which could inform the implementation of AI within the energy system.

Benefits to the Fellow

The fellow will be embedded within DESNZ's AI Policy Team and will work as part of the day-to-day activities of the team, including a designated line manager and engagement with the Chief Scientific Adviser's Office, while working closely with colleagues across cyber, resilience and security policy areas.

The fellowship will provide the following benefits:

- gain an in-depth understanding of how scientific evidence informs policy development and delivery across government
- inform and influence DESNZ and wider government policy relating to AI, energy security and critical infrastructure resilience
- access a broad network of policy professionals, analysts, scientists, security specialists and external experts
- engage in knowledge exchange activities including relevant workshops, roundtables and cross-government networks
- opportunities to input into government publications

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:

The following essential criteria are required:

- subject matter expertise in a relevant discipline such as artificial intelligence, cyber security, risk analysis, energy risk/resilience or a related field
- experience of assessing complex technological risks and uncertainty, including the ability to identify emerging issues, undertake horizon scanning, evaluate evidence, and develop analytical frameworks to support decision-making
- ability to translate research into policy-relevant insights, communicating complex technical concepts clearly to non-specialist audiences and supporting evidence-informed policy development

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:

Expertise in one or more of the following areas:

- knowledge of AI Applications as they apply to the energy sector, such as the grid control room, market trading, asset management and operation, distributed flexibility etc
- knowledge of AI supply chains, such as data centres, software, training data and their relevance in the energy system

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.

We 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. Please see the DESNZ Personal Information Charter for more information.