

OPPORTUNITY FOR NERC POLICY PLACEMENT FELLOWSHIP IN DEFRA

TITLE OF PROJECT : SUSTAINABILITY OF BIO-ENERGY IN THE UK

The Appointment

The Natural Environment Research Council (NERC) and Department for Environment, Food and Rural Affairs (Defra), welcome applications for a temporary specialist **Fellow** to work with Defra within its Environment & Rural Group, based in London (Nobel House, 17 Smith Square, SW1) for a period of approximately six months (full time). The post is being offered as part of the NERC [policy placement fellowship scheme](#) aimed at supporting the science to policy processes between government departments and NERC. The post-holder will interact on a regular basis with NERC science managers and theme leaders for Sustainable Use of Natural Resources (TAP Action on Bio-energy) and Biodiversity themes and the knowledge exchange team. Engagement with related initiatives such as the Research Councils Energy Programme which supports the UK Energy Research Centre (UKERC), Special Interest Groups of the Technology Strategy Board (eg the NERC sponsored Algal Bio-energy Network), work funded by the Energy Technologies Institute (ETI) and activities of the government / industry Energy Research Partnership (ERP) committee will also be essential to this role.

Closing date for applications: Monday 22nd November

Indicative date for interviews: w/b Monday 29th November

For application form and guidance notes please see:
<http://www.nerc.ac.uk/using/publicsector/fellowship.asp>

For further information, contact Dr Peter Costigan, Science Co-ordinator Environment and Rural Group (e-mail: Peter.costigan@defra.gsi.gov.uk Tel: +44 (0)207 238 5003), Davinder Lail, Climate Change Policy Team and project manager for this work at Defra (e-mail Davinder.lail@defra.gsi.gov.uk Tel: +44 (0)20 7238 3048) or Lesley Aspinall, Science to Policy Facilitator at NERC (e-mail laa@nerc.ac.uk Tel:+44 (0)1793 411536)

Such placements have proved most valuable, significantly enhancing links between NERC science and science evidence and policy teams in government, enabling improved science evidence for UK policy. The value to post-holders has also been high. Previous placement fellows have benefited from developing a clearer understanding of how government works in delivering evidence-based policy, an understanding of handling the day-to-day pressures of delivering directed science and of communicating with senior officials and ministers, whilst developing strategies for delivering evidence for policymaking in the longer term.

The Fellow will remain employed by their present employer. The fellowship will cover salary cost (see guidance notes for details) and arrangements will be made to cover travel and subsistence expenses on a case-by-case basis.

Job Purpose and Description:

A scientist is required to work alongside an economist and policy officials from early December 2010 to May 2011. This small team will lead the gathering and analysis of

evidence to determine how bio-energy can contribute sustainably to the Government's renewable energy and climate change goals for 2020 and 2050. This is part of a wider portfolio of work between a number of Departments (Cabinet Office, Defra, DECC, DfT, DfID) to help determine the role bio-energy can play in the UK's future low carbon energy mix.

More specifically, this will include co-ordination and analysis work, with others, to fill some of the evidence gaps on:

The extent to which bio-energy can meet greenhouse gas and renewable energy targets for 2020 and 2050:

- Supply and demand analysis to identify the range of potential contribution which bio-energy could make for 2020 and 2050.
- Working with DECC on comparison of bio-energy greenhouse gas savings relative to the emissions from other principal uses of biological resources (food, construction, carbon storage, eco-system protection etc).
- Working with DECC on what different levels of contribution from bio-energy would mean for the role of other low carbon technologies in meeting 2020 and 2050 goals and the environmental implications of those different technology mix scenarios.
- Working with DECC on the effect of Government intervention in influencing the extent to which bio-energy meets greenhouse gas and renewable targets.

The potential economic opportunities and economic impacts of bio-energy:

- Analysis of the potential shape of the bio-economy over the next 40 years.
- The prospects and potential for new technology and crop productivity.
- The contribution of increased bio-energy within the bio-economy and the specific Defra sectors which could benefit and by how much (agriculture, forestry, waste etc).
- The impact on the Defra sectors which compete with bio-energy for the same resources (in particular the food sector) and the extent to which the market can meet various levels of bio-energy demand.
- The effect of Government intervention in realising the benefits and addressing the impacts.

The wider social and environmental implications of different levels of bio-energy use on:

- UK biodiversity;
- International biodiversity;
- Land use (including indirect land use change);
- UK air quality;
- Waste reduction;
- UK water use;
- UK and international food prices;
- Developing country society and economy;
- The effect of Government intervention to address those impacts.

Background

The over-arching purpose of Defra is to protect the environment for future generations, make our economy more environmentally sustainable, and improve our quality of life and well-being.

The Environment and Rural Group within Defra manages a range of programmes to develop and implement government policy on adapting to the impacts of climate

change, improving air quality, waste reduction, protecting and enhancing terrestrial and marine biodiversity and improving water quality and flood management, amongst other things. Although DECC leads in government on climate change mitigation, Defra has a strong interest in ensuring the success of that agenda and in delivering the necessary reduction in emissions in a sustainable way. Defra has a particularly strong role in ensuring a sustainable approach to the use of bio-energy, as they have the lead in government for all of the principal supply side sectors (agriculture, forestry and waste) as well as many of the impacts.

NERC funds world-class science in universities and research centres that increases knowledge and understanding of the natural world, through independent research and training in the environmental sciences. NERC's current strategy defines seven themes under which its science will be delivered: climate system, biodiversity, sustainable use of natural resources, earth system science, natural hazards, environment pollution and human health, and technologies. NERC interacts and works regularly with a wide range of stakeholders, including policy-makers, to support the science to policy process and help develop appropriate ways to address environment issues.

Skills required

The successful applicant should ideally have a strong scientific and policy background with a broad understanding of science and knowledge of research activity sources. A strong interest in driving forward the research agenda to serve policy and operational needs is essential, as are a degree of lateral thinking and creative thinking. The following skills are expected:

- Knowledge and research experience in a relevant field is essential, as well as an understanding of NERC and Defra remits and responsibilities.
- Good communication, networking and presentation skills.
- Ability to work strategically across disciplines and an appreciation of the policy and regulatory context of research.
- Good project management skills, and an ability to work independently as required.
- Good written communication skills.
- Collaboration – driving co-operation within and beyond Defra.
- Delivering in partnership – building, maintaining and promoting effective partnerships, engaging and managing delivery partners effectively.

Specialist expertise

This assignment is quite wide-ranging and is suitable for individuals with different scientific backgrounds, skills and experience. The person appointed would not be expected to be an instant expert but to develop their expertise in the course of the work. Key relevant areas of skills and experience include:

- Bio-energy sector
- Impact of land use on biodiversity
- Relative greenhouse gas emissions of different feedstocks (although lead for this will mainly be with DECC)