



Sustainable Gas Futures

Announcement of Workshop

FAPESP Sao Paulo Research Foundation, Brazil, 25-27 February 2015

The deadline for UK applications is 12:00 (UK time), 13 January 2015.

The Natural Environment Research Council (NERC) invites applications from UK scientists and industry representatives to attend a jointly organised workshop with FAPESP Sao Paulo Research Foundation in Brazil on 25 - 27 February 2015.

The exact level of investment is still to be confirmed. NERC has committed £1.05M over 4 years to this programme via the Newton Fund, with matched funding from FAPESP.

As an initial step to build partnerships, facilitate collaboration and scope the programme the aims of this joint workshop will be:

- To discuss the key science challenges that relate to the aims of this programme and how they could be best addressed.
- To facilitate networking, discussion and enable researchers to share ideas on key research questions relevant to the call.
- To explore opportunities for potential future collaboration in the area of whole systems approach to examining the use of gas in the energy system.
- The outcome of the workshop will be to define the scope of a new UK/Brazil, interdisciplinary call, supported by the Newton Fund, with a focus on research contributing to the economic development and welfare of Brazil as part of the Sustainable Gas Futures programme.

Newton Fund

The Newton Fund is an initiative intended to strengthen research and innovation partnerships between the UK and emerging knowledge economies. The Fund forms part of the UK's **Official Development Assistance (ODA)** commitment which is monitored by the **Organisation for Economic Cooperation and Development (OECD)**¹.

ODA funded activity focuses on outcomes that promote *long-term sustainable growth* and is administered with the promotion of the economic development and welfare of the partner country as its main objective. The Fund will cover 3 broad categories of activity:

- **people:** improving science and innovation expertise (known as 'capacity building'), student and researcher fellowships, mobility schemes and joint centres
- **programmes:** research collaborations on development topics
- **translation:** innovation partnerships and challenge funds to develop innovative solutions on development topics

¹ <http://www.oecd.org/>

Background Sustainable Gas Futures programme

In the area of energy, Brazil forecasts a 60% growth in the domestic energy demand in the next decade. Currently Brazil has a clean matrix, with 46% of its energy from renewables (mainly relying in large hydropower and biofuels), and has committed to maintain its percentage of low carbon energy in the matrix. However, to meet this target, the country will need to increase investment in new renewable energy and other low carbon technologies, with particular attention to building capacity and research and development.

The UK once had a major resource, and now is a major user in power, buildings and industry, with a mature and extensive gas infrastructure, the potential for shale gas to come on stream, and challenging emissions reduction targets. While Brazil has relatively untapped major gas resources, limited gas infrastructure, and very different demand and natural resource characteristics.

The whole systems approach to examining the use of gas in the energy system is a UK and NERC strength and this initiative would strengthen partnerships between UK and Brazilian researchers in this field, benefiting both countries, in an area that is central to NERC's new strategy. It is vital, and recognized by Brazil, that the rapid development of gas resources must be carried out sustainably. Whilst there will be a major technology element to this initiative, it cannot be taken forward without environmental science in taking a whole energy systems approach.

Collaborations under the call will contribute to economic development and social welfare in Brazil, in line with the Newton Fund's aims.

A primary aim of the workshop will be to discuss the key science challenges, research effort needed and how to address these within the proposed new call. The workshop will also facilitate networking and discussion to enable researchers to share ideas on key research questions relevant to the call. The workshop's outcome will shape the scope of the future call. It will also generate ideas for potential future areas of research collaboration.

Attendance at the workshop does not automatically enable project bids to be submitted or guarantee funding. Conversely, absence does not preclude bidding into the call.

The full programme of the workshop and further details will be available in January 2015.

Proposed goals for the Sustainable Gas Futures programme

- 1) Develop new methodologies to characterise, explore, analyse and assess the role of gas in current and future energy systems, considering both economic and environmental sustainability indicators.
- 2) Deliver alternative views of the future of gas in low carbon energy systems, and to identify key sustainable technologies within those futures
- 3) Engage with current and possible future technology options throughout the gas value chain and across competing and synergistic energy vectors and technologies, to ensure that the analysis is grounded in engineering options in particular the synergies and differences between the UK and Brazil in gas.
- 4) Capacity building through a whole systems energy approach to address Ecosystem Services² across energy technologies associated with the development of a sustainable gas future

² See for example: Millennium Ecosystem Assessment - <http://www.unep.org/maweb/documents/document.300.aspx.pdf>



- 5) Develop common learning and understanding of the future of gas in both countries and worldwide.

The workshop – how to apply

To attend the workshop you must complete the expression of interest (“Eoi”) form, following the instructions provided on the form. The form, together with a CV of no more than two sides of A4, should be sent to newtonsgf@nerc.ac.uk by 12:00 on 13 January 2015. Invited participants will be notified by Friday 16th January 2015. Submission of these documents will be taken as indicating availability on the dates of the workshop.

Applicants should outline their relevant area of expertise, any current overseas collaboration and links, and their personal rationale for being involved in the workshop. They should also state in which of the workshop themes they have a specific interest. Please note that the total number of participants from the UK is limited and NERC will try to ensure a balance of different disciplines/expertise and the number of attendees from the same institution. It is expected that up to 15 UK academic participants will be invited.

NERC will cover all reasonable travel and accommodation expenses for UK participants attending the workshop in line with NERC policy on recovering travel and subsistence.

For further information please contact:

NERC: Michelle Truman
Email: newtonsgf@nerc.ac.uk
Tel: + 44 (0)1793 411700