

THE TECHNOLOGY PROGRAMME  
SPRING 2006 COMPETITION FOR FUNDINGEmerging Energy Technologies:  
Oil & Gas Technologies

## Summary

Investment in new technologies is an important factor in prolonging the life of the UK hydrocarbon reservoirs and increasing the global competitiveness of the UK oil and gas sector. The Oil and Gas Technologies competition will allocate an indicative £2million funding to projects which focus on:

- Identifying additional and incremental hydrocarbon reserves (especially Geophysics, Seismic and other alternative methods of reservoir processing);
- Accessing reserves cost effectively e.g. Through Tubing / Multilateral Drilling and enabling difficult oil production e.g. 'heavy oil';
- Sustaining and improving existing production from mature fields e.g. Wells / Facilities Integrity Management, Sand and Water Management, Capturing and using CO<sub>2</sub> for Enhanced Oil Recovery (EOR);
- Improving environmental performance with further specific environmental technology development.

**The prime objectives are:**

- lowering cost per barrel extracted;
- maximising recovery from UK hydrocarbon reservoirs; and
- quantifying additional producible barrels.

## Background

Until 2030, global energy demand is expected to increase by 50% of which around 60% of the energy supply is expected to be met by oil and natural gas. For the UK, while the Government's 2010 to 2020 targets show a progressively more diverse energy system, it is clear from current usages that oil and gas, currently 74% of the energy mix, will still be by far the dominant contributor to the energy mix in 2020. Oil will remain the dominant energy source for the transport sector and



feedstock for the petrochemical industry. Gas will take an increasing market share in UK's energy supply, essentially for power generation. Against this background the UK needs to maximise recovery of its substantial indigenous oil and gas resources both to maintain a secure and diverse energy supply and to maximise economic benefits. The development of new technology is a substantial component of the drive towards achieving maximum recovery of the resources on the UK Continental Shelf (UKCS).

### Scope for applications:

Research and development of technologies that can make a significant contribution to the objective of maximising recovery from UK hydrocarbon reservoirs will be considered in this competition. A special focus will be given to projects that address the key issues in maximising recovery from 'Brownfields'. These technologies can come from across the full range of Industry operations i.e. from enhancing reservoir understanding and development (e.g. 'Geomechanics') through to production enhancing technology areas such as 'Through Tubing Drilling' (TTD) and 'Downhole Water Control'. Consideration will also be given to technologies that will impact in the medium to long term, e.g. EOR type activities. Finally, consideration will be given to projects that will address environmental challenges in the Oil and Gas Industry, e.g. dealing with produced water.

In addition, there are plans to consider a few demonstration projects where a key technology requires an offshore field test as part of the prototype development. Projects considered under this part of the call would have to demonstrate a clear and significant benefit to the UK industry and evidence of Industry commitment to run this technology on the UKCS on completion of a successful test.

## Funding Allocation and Project Details

An indicative £2m of funding has been allocated to Collaborative Research and Development projects that address one or more of the areas indicated above and involve science-to-business and business-to-business interactions. Additional funding from EPSRC is also available for projects where there is a significant high quality academic component and in particular for those projects that demonstrate added value to its existing portfolio; by building on or being complementary to existing research programmes.

Projects can range from small, highly focused basic research projects, aimed at establishing technical feasibility, through to applied research and experimental development projects configured to produce technology demonstrators. It is anticipated, however, that the majority of the total funding will be allocated to projects in the applied research category.

In this technology area, applications may fall into only one of two categories of projects.

## Fast Track Applications

Applicants for projects that seek £250,000 or less of support may choose to be assessed against the Programme criteria in a "Fast Track" process or in a Two Stage process. Typically, Fast Track projects will be industry led and of no more than 2 years duration. Fast Track projects are likely to involve fewer collaborators and modest academic involvement. Applicants will use the "Outline" application form and applications will be assessed in a single-stage process. It is envisaged that up to £500,000 of the funding for this technology area will be allocated to supporting these projects.

### Key dates:

Competition opens at launch event at Barbican Centre, London on 26 April 2006.

Deadline for registering your intention to submit an application: 12 June.

Deadline to submit an application: 19 June.

Applicants should expect a decision by 7 August.

Successful applicants will be expected to accept or decline any grant offer by 9 October.

Successful applicants will be expected to start their project by 8 January 2007.

## Two-Stage Applications

All projects that seek in excess of £250,000 of support will be assessed against the Programme criteria in a two-stage process. Typically, such projects will be of 2-3 years duration and have a significant business contribution. The two-stage process will consist of an Outline Application and Full Application.

### Key dates:

Competition opens at launch event at Barbican Centre, London on 26 April 2006.

Projects seeking excess of £8million public sector support must register their intention to submit an application by 24 May.

Projects seeking less than £8million public sector support have until 12 June to register their intention to submit an application.

Deadline to submit an outline application: 19 June.

Outline stage assessment decision: 18 July.

Deadline to submit a full stage application: 12 September.

Full stage assessment decision: 7 November.

Successful applicants will be expected to accept or decline any grant offer by 17 January 2007.

Successful applicants will be expected to start their project by 18 April 2007.

## Competition Events

- 26 April 2006 Technology Strategy and Programme Information Day, Barbican Centre, London
- 4 May Technology Programme Partnering Event, Guoman Towers, London
- 10 May Technology Programme Partnering Event, Midland Hotel, Manchester

For more information and to register for these event, visit <http://www.dti.gov.uk/technologyprogramme/forthevents.html>

## Contact

If you have any queries about the technical scope of the competition or the application process, please contact the Technology Programme helpline on **01355 272155** or email [info@technologyprogramme.org.uk](mailto:info@technologyprogramme.org.uk)