

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 £5m 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 hydrocarbon production e.g. 'heavy oil' and 'tight Gas';
- Sustaining and improving existing production from mature fields e.g. Wells / Facilities Integrity Management, Sand and Water Management, Capturing and using CO₂ 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.



dti

**SUCCEEDING
THROUGH INNOVATION**

Oil & Gas Technologies

COLLABORATIVE RESEARCH
AND DEVELOPMENT



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

The Technology Strategy Board advises on the selection of priority technology areas and the allocation of funding for the Technology Programme. The Technology Strategy Board is currently being established as an executive non-departmental public body and will in future be responsible for the development and delivery of the Government's programme of technology support, including the Technology Programme.

An indicative £5m of Technology Programme support 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.



Typical projects would have 2-3 year duration, require support around £500k-£2m, although no project will be rejected on the grounds of size alone, and generally aim to implement significant business change in a 5-7 year time frame rather than shorter-term payback. Larger projects will be considered but the case must be exceptional. In particular we would encourage projects that can demonstrate benefits to a number of business sectors, and ideally should include at least one partner with defined end-user needs.

Additional funding from EPSRC may be 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 aimed at establishing technical feasibility, though to applied research, and to experimental development projects. It is anticipated that most of the funding will be allocated to proposals in the applied R&D (attracting 50% public funding) or experimental development (25% public funding) categories. Projects involving industry oriented basic research (75% public funding) will also be considered but a robust case must be made to support the requested level of funding. Definitions of the above categories of research can be found in the Guidance for Applicants – see <http://www.dti.gov.uk/innovation/technologystrategy/index.html>

The Technology Strategy Board will require all projects to provide a non-commercially confidential summary, at the start and the conclusion of the project, for dissemination.

Contacts

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**

Key Dates

Competition opens: 24 April 2007

Oil and Gas event in Aberdeen - 18 April 2007.

Competition event in London - 25 April 2007. For more information about this and other events use the web address below.

Deadline for registering your intention to submit an application: 11 June 2007

Deadline for all Academic Finances through the Je-S systems: 14 June 2007

Deadline for all Outline applications: 18 June 2007

Full stage opens: 16 July 2007

Deadline for receiving full stage applications: 11 September 2007

Decision and feedback to applicants: October 2007

For details on how to register and apply go to:

<http://www.dti.gov.uk/innovation/technologystrategy/index.html>

