Ocean Energy
Development Unit

Ocean Energy Prototype Research and Development Programme

Application Guide

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1. Description of Programme

In 2006, Sustainable Energy Ireland and the Marine Institute prepared the National Strategy for Ocean Energy Development. This phased strategy aims (a) to introduce ocean energy into the renewables portfolio in Ireland and (b) to develop an ocean energy sector. It aims to support national developers of wave energy devices through concept validation, model design optimisation and scale model testing and deployment.

- In Phase 1 (2005-2007) an offshore test site for ¼ scale prototypes was developed in Galway Bay, research capability was enhanced and some funding was provided, from a variety of sources, to researchers and developers.
- Phase 2 (2008-2010) continues activities of Phase 1 and provides enhanced support for the demonstration of Pre-Commercial Single Devices. This phase provides a mechanism to bring successful designs from the prototype stage to the construction of a fully operational pre-commercial wave energy converter which will supply power directly to the electricity network. The results of this phase will be used to assess the commercial viability of the technology and the resulting industrial opportunities available to Ireland. A grid-connected test site will be developed during the period 2008-2010.
- Phase 3(2011-2015) will involve pre-commercial small array testing and evaluation over a sustained period.
- Phase 4 (2016 -) will involve development of strategies for commercial deployment of wave power technologies.

The targets for the use of Ocean Energy in Ireland, as announced by the Government in the White Paper and the Programme for Government, are 75 MW by 2012 and 500MW by 2020.

In announcing the Government's support for the Ocean Energy Strategy, the Minister provided a specific 3-year budgetary provision of €26m to fund the establishment and operation of the Ocean Energy Development Unit in SEI, the establishment of wave and tidal test facilities, the enhancement of the national wave tank facility, a power-purchase scheme for electricity produced from Ocean Energy, and an indicative sum of €10m support fund to support research and prototype development by industry.

2. Programme Objectives

The objectives of this Programme are to accelerate and enhance support for the research, development, testing and deployment of wave and tidal energy devices.

3. Who Can Avail of the Programme?

The scheme is open to public, private and international entities resident in Ireland (including Irish subsidiaries of overseas companies) and carrying out projects in Ireland. In some circumstances, the programme may support Irish entities on work undertaken overseas, where this is necessary for the completion of the work. In exceptional cases, funding of work overseas may be supported where there is a demonstrable contribution to resolving specific Irish issues.

Applications will be accepted from individual organisations, or from organisations acting in collaboration with other organisations or with third level colleges/research institutes, either on a contractual basis or within consortia or joint ventures. Collaborative development programmes between manufacturers or service companies and research institutions or other centres of learning are actively encouraged.

4. What Projects are Eligible?

The main focus of the programme is on stimulating the development and deployment of ocean energy devices and systems. As such, the emphasis is on industry-led projects for the following types of activities:

- Industry-led projects to develop and test wave and tidal energy capture devices and systems;
- Independent monitoring of projects/technologies;
- Industry-led R&D aimed at the integration of ocean energy into the electricity market and the national electricity grid (and network)
- Data monitoring, forecasting, communications and control of OE systems
- Specific industry-led research projects which will be carried out by research centres.

The Programme is not intended to support universities or other third-level institutions in undertaking fundamental research. Third-level institutions wishing to undertake fundamental research should contact the relevant body for such funding (such as the Irish Research Council for Engineering Science & Technology, the Programme for Research in Third Level Institutions, administered by the Higher Education Authority (HEA), or Science Foundation Ireland)

5. What Level of Funding is Available?

The level of funding will be decided on a case by case basis. This programme is for device development and excludes project development.

The maximum funding level for which a project is eligible depends on a number of factors:

- Category of R&D&I
- Size of participating undertakings (company)
- Collaboration

The funding is calculated from the table below. There is a maximum level of support for which a project is eligible.

The project is eligible for funding up to these levels; the actual funding level provided will depend on evaluation of the project with regard to: administrative and technical compliance; acceleration of the development of ocean energy in Ireland; ability to overcome technical and other barriers; contribution to the development of an indigenous OE industry; environmental compatibility; project management capability.

Category	Base Level	Type of Company		Collaboration	Maximum Level
		Small Enterprise	Medium Enterprise		
Industrial Research	50%	+20%	+10%	+15%	80%
Experimental Development	25%	+20%	+10%	+15%	60%

Category of R&D&I: There are two categories Industrial Research and Experimental Development as defined by Commission Regulation. In general they are defined as follows:

'Industrial Research' means the planned research or critical investigation aimed at the acquisition of new knowledge and skills for developing new products, processes or services or for bringing about a significant improvement in existing products, processes or services. It comprises the creation of components of complex systems, which is necessary for the industrial research, notably for generic technology validation, to the exclusion of prototypes as covered by Experimental Research.

'experimental development' means the acquiring, combining, shaping and using of existing scientific, technological, business and other relevant knowledge and skills for the purpose of producing plans and arrangements or designs for new, altered or improved products, processes or services. These may also include, for example, other activities aiming at the conceptual definition, planning and documentation of new products, processes and services. The activities may comprise producing drafts, drawings, plans and other documentation, provided that they are not intended for commercial use.

Type of Company: Small and Medium-sized enterprises (SMEs)' means small and medium-sized enterprises as defined in Commission Regulation. In general the staff headcount and financial thresholds determining enterprise categories:

1. The category of micro, small and medium-sized enterprises ('SMEs') is made up of enterprises which employ fewer than 250 persons and which have an annual turnover not exceeding EUR 50 million, and/or an annual balance sheet total not exceeding EUR 43 million.

2. Within the SME category, a small enterprise is defined as an enterprise which employs fewer than 50 persons and whose annual turnover and/or annual balance sheet total does not exceed EUR 10 million.

Collaboration: Collaboration as defined by Commission Regulation. In a collaboration project, at least two partners participate in the design of the project, contribute to its implementation and share the risk and the output of the project. Where the project involves effective collaboration between at least two undertakings which are independent of each other, the following conditions must be fulfilled no single undertaking bears more than 70 % of the eligible costs of the collaboration project, the project involves collaboration with at least one SME. Where the project involves effective collaboration between an undertaking and a research organisation , the following conditions must be fulfilled. The research organisation bears at least 10% of the eligible project costs, and the research organisation has the right to publish the results of the research projects insofar as they stem from research carried out by that organisation.

6. Eligible Costs

Costs directly associated with delivery of a project may be eligible for support.

In the case of successful applicants, only eligible expenditure incurred from the date of approval of the application by the Authority will be considered for funding. Expenditure incurred **before** this date is ineligible.

The aid intensity will be calculated on the basis of the costs of the research project to the extent that they can be considered as eligible. All eligible costs must be allocated to a specific category of R&D. The following costs shall be eligible:

- personnel costs (researchers, technicians and other supporting staff to the extent employed on the research project) – this shall be supported by time sheets and salary receipts, only salary plus employers PRSI shall be eligible.
- costs of instruments and equipment to the extent and for the period used for the research project. If such instruments and equipment are not used for their full life for the research project, only the depreciation costs corresponding to the life of the research project, as calculated on the basis of good accounting practice (for example 20% per year over 5 years), are considered as eligible;
- cost of contractual research, technical knowledge and patents bought or licensed from outside sources at market prices, where the transaction has been carried out at

arm's length and there is no element of collusion involved, as well as costs of consultancy and equivalent services used exclusively for the research activity;

- other operating expenses, including costs of materials, supplies and similar products incurred directly as a result of the research activity.
- intellectual property costs;

In case of a subsequent commercial use of demonstration or pilot projects, any revenue generated from such use must be deducted from the eligible costs.

7. Application, Evaluation and Approval Procedure

7.1. Application Form

Applicants must demonstrate strong technical and theoretical foundation for their technology and be able to describe satisfactorily the theoretical performance of a proposed device. The theoretical model must provide evidence for the performance and cost of the proposed device.

It is recommended that all interested applicants familiarise themselves with and apply the International Energy Agency -Ocean Energy System document on the "Development of Recommended Practices for Testing and Evaluating Ocean Energy Systems" and the Protocol for Ocean Energy Device Development prepared by the HMRC, Cork. (Links to both documents are available on our website).

Where devices have undergone scale-model tests, independently verified data on the results must be provided. Larger scale projects will also be required to demonstrate a viable Business Development Plan.

Application forms are available on request or online at www.sei.ie/oceanenergy

7.2. Submission

Applicants can submit the form and associated documents electronically to the OEDU email or by hardcopy. Along with the completed application form, applicants must submit a valid Tax Clearance Certificate (a scanned or faxed copy of the valid tax clearance certificate is acceptable).

7.2.1. Electronic Application:

Applicants should send an electronic version of the Application Form containing electronic signatures to oceanenergy@sei.ie. Electronic signature's are a scanned copy of the actually signature attached to the application form.

7.2.2. Hardcopy Application:

Alternatively, applicants can mail a hardcopy and electronic version without signature.

1. Mail a hard copy containing the original signatures to:

   Grants Administrator
   Ocean Energy Development Unit
   Sustainable Energy Ireland
   Glasnevin
   Dublin 9

2. Email an electronic version of the completed Application Form to oceanenergy@sei.ie

7.3. Approval

The indicative decision time from the receipt of a complete application form is 8 to 12 weeks. If approved, a Grant Agreement will be issued to the applicant. The offer will only be validated upon the applicant indicating acceptance of offer by returning a signed copy of the Grant Agreement to SEI, which must be received within 30 days of date of issue.

The grant agreement will detail financial and progress milestones and deliverables required. There will also be requirements with regard to provision of data and participation in marketing and promotional activities.

The project will need to be completed by the completion date outlined in the grant agreement. The grant will automatically lapse after this date.

SEI monitors projects that are awarded funding to ensure that they are implemented efficiently and correctly to help achieve successful results.

The rate of grant commitments to be entered into will be consistent with the funding profiles to which SEI is subject under the Ocean Energy Programme. Phasing of supports paid to projects is related to the achievement of project milestones and meeting the requirements for deliverables.

The grant programme is subject to any clearances required from the Commission of the European Union, any consents, clearances or licenses which might be required from any other competent body. SEI reserves the right to alter or amend any aspect of this Programme as a consequence of any directions, conditions or requirements of any such consents, clearances or licenses.

7.4. Evaluation Criteria

Proposals will be evaluated to determine:

- Administrative compliance with programme requirements;
- Technical merit
- Compliance with the programme objectives;
- Ability to facilitate and accelerate the development and deployment in Ireland of competitive ocean energy products, processes and systems;
- Ability to enable technical and other barriers to the development and introduction of Ocean Energy to be overcome;
- Contribution to the development of an indigenous OE industry;
- Environmental compatibility of the technology/project;

Project management capability is assessed on the basis of:

- Methodology of approach;
- Strength and balance of the team;
- Efficient use of resources;

Independent experts may be employed to review applications.

8. Terms and Conditions

1. Application Form and Terms and Conditions are those published on the SEI website on the date of submitting the application.

2. The applicant must ensure that he/she submit the latest version of the Application Form (see www.sei.ie/oceanenergy for the latest version).

3. Approval of grant only becomes valid upon receipt by SEI from the grantee of the signed Grant Agreement to indicate his/her acceptance.

4. Grant approval must be in place **before** any purchases are confirmed or works commenced. **No payments will be made retrospectively** for costs incurred prior to approval being granted.

5. The grant, once approved, is only payable in respect of the approved eligible costs identified in the Application Form and referenced in the Grant Agreement.

8. Should the grantee's project be selected for inspection, the applicant must provide access to SEI or its authorised agents.

9. The applicant must obtain all necessary consents and statutory approvals.

10. The applicant must be prepared to participate in follow-up research as may be commissioned by SEI to establish the Programme's impacts and achievements. This will

also include the acquisition of information and data for the development of case studies for wider dissemination.

11. SEI undertakes to use its best endeavours to hold confidential, any information provided by the applicant subject to its obligations under law, including the Freedom of Information Act 1997 (as amended). Should applicants wish that any of the information supplied by them should not be disclosed because of its sensitivity, they should, when providing the information, identify the same and specify the reasons for its sensitivity. Sustainable Energy Ireland will consult with applicants about such information before making a decision on any Freedom of Information request received.

12. Data Protection – Any personal information which applicants volunteer to SEI will be treated with the highest standards of security and confidentiality, strictly in accordance with the Data Protection Acts, 1988 & 2003. SEI, as data controller, and its agents, will store the information you provide on its database and fully respect the confidentiality of the data provided. The information you provide will be used for evaluation purposes and to facilitate the administration of the grant process. This may require that your data be supplied to and discussed with, in confidence, any person or organisation helping to assess and monitor this application. These persons will be subject to the same requirements for protection of confidentiality. Your signature on this Application Form is treated as confirmation that SEI and its agents may use the information you have supplied for the aforementioned purposes.

9. Contact Information

Programme Administrator
Ocean Energy Development Unit
Sustainable Energy Ireland
Glasnevin
Dublin 9

Phone: 01-808-2062
Fax: 01-808-2013
Email: oceanenergy@sei.ie

This document together with the necessary forms may be downloaded from SEI's website.

10. Further Information

Further information on the Ocean Energy Programme is available from the SEI web site www.sei.ie/oceanenergy