



Engineering and Physical Sciences Research Council

Quick Reference

Please note that you must read the full Call document for guidance before submitting your proposal

Marine Wave Energy

Call type: Invitation for proposals

Closing date: 16.00 Wednesday 23 September 2020

Funding Available: Approximately £4.5 Million (80% FEC) is available to fund standard grant proposals of up to £1 Million

How to apply: Intent to Submit followed by full proposal.

Assessment Process: Full proposals will undergo postal peer review followed by a panel, resulting in a rank ordered list. Full proposals can only be submitted by applicants that have submitted an Intent to Submit by the deadline. The Intent to Submit is not assessed. Proposals which do not have sufficiently supportive reviews from the postal peer review process to be competitive at panel will be rejected.

Key Dates:

Activity	Date
Call opening date	Tuesday 2 June 2020
Intent to Submit deadline	16.00 Tuesday 14 July 2020
Full Proposals deadline	16.00 Wednesday 23 September 2020
Panel	Early February 2021
Grant start date	Tuesday 06 April 2021

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Physical Sciences
Research Council**

Marine Wave Energy

Call type: Invitation for proposals

Closing date: 16.00 Wednesday 23 September 2020

Related themes: Energy, Engineering, ICT, LWEC, Manufacturing the future, Mathematical sciences, Physical sciences.

Contents of this call document

[Summary](#)
[Background](#)
[Funding Available](#)
[Equality, Diversity and Inclusion](#)
[Equipment](#)
[Eligibility](#)
[How to apply](#)
[Submitting an application](#)
[Guidance on 'Writing an Application'](#)
[User Engagement Strategy](#)
[Assessment process](#)
[Assessment Criteria](#)
[Guidance for Reviewers](#)
[Guidance for \[host organisations/heads of department\]](#)
[Additional grant conditions](#)
[Moving Forward](#)
[Key Dates](#)
[Contacts](#)
[Change Log](#)
[Attachment Checklist](#)

Summary

This is a call to fund research grant proposals in Marine Wave energy. It is expected that the funding available for this call is approximately £4.5 million.

We anticipate that proposals may vary in scale and scope depending on the planned approach. Proposals should be for a maximum of £1 million.

Proposals should fall mainly under the EPSRC remit but may include **integrated** social and environmental aspects surrounding the use of Wave Energy Converters.

Research proposals should clearly address technological challenges related to devices and systems to capture the kinetic energy from marine waves.

Proposals that do not clearly address the challenges of marine wave energy conversion as the main focus will be rejected as out of remit for the call

Information on the Marine Wave energy remit can be found here: <https://epsrc.ukri.org/research/ourportfolio/researchareas/marine/> . Please note this call is in Marine Wave Energy only and **proposals focused on Tidal stream energy will not be considered** .

Proposals can be multi-disciplinary, and they may come from consortia or individual institutions and may address individual or multiple themes.

We expect proposals to engage with key organisations (academic, industry, policy etc.) in the energy landscape relevant to the use of wave energy converters.

Industry involvement is not mandatory for proposals but it is encouraged, where appropriate, to maximise the impact of research outputs.

It is essential that proposals explain how the proposed research fits into the existing energy research landscape, specifically how the proposed research differs or is complementary to existing similar work. Proposed interactions with other research in the landscape to maximise progress and value for money should be described.

Applicants should include in their proposal how their research will potentially contribute to meeting decarbonising targets.

This call will take a portfolio approach. Therefore the aim is that projects funded by this call should support a wide range of potential solutions and for there not to be a significant proportion of proposals lying in the same area of research. To achieve this portfolio approach, EPSRC will put each group of proposals into separate lists at the panel, based on their area of research. Each list at the panel meeting will be rank ordered and the scoring will be tensioned across all proposals. Based on the rank ordered lists a funding decision will be made by EPSRC.

Call Process

The call is for full proposals but an Intent to Submit must be completed by 16.00 on Tuesday 14 July 2020.

The Intent to Submit form is available on the call page on the EPSRC website. The Intent to Submit is to help EPSRC plan the postal peer review and the panel; it will not be assessed.

The Full Proposal will be assessed by postal peer review. Proposals which do not receive sufficiently supportive reviews to be competitive at panel will be rejected. A PI response to the reviews for the sufficiently supported proposals will be requested.

The panel will generate a rank ordered list of proposals for each of the lists. Based on the rank ordered list and the available funds a funding decision will be made and the appropriate proposals funded.

Background

The UK has a long-standing track record of learning and expertise in Marine Wave Energy and is still considered to be a leader in this area. EPSRC recognises the need for fundamental research in Wave Energy to ensure that this continues to be the case.

There is currently considerable experience in the sector from the deployment of various Wave Energy Converter (WEC) prototypes, but there are still significant obstacles around technology and affordability.

In August 2019, EPSRC ran a scoping workshop with stakeholders from industry and academia to determine how best to maintain the health of Marine Wave Energy research in the UK. As a result, a roadmap in Marine Wave Energy was commissioned through the Supergen Offshore Renewable Energy Hub. [See Call documents].

The roadmap concluded that targeted research and innovation would play an important role in the Wave Energy journey to commercialisation. As a result, EPSRC is looking to fund proposals, particularly in the key areas highlighted by the roadmap, including:

Novel designs for niche applications

Survivability and reliability of devices in the marine environment

Power Take Off and control systems

Modelling, forecasting and evaluation of Wave Energy resource

New materials for Wave Energy Converters

For more information on the Marine Wave research area, see our website:

<https://epsrc.ukri.org/research/ourportfolio/researchareas/marine/>

Broader context

In order to meet the Paris Agreement target to 'hold global temperature rise at 'well below' 2°C above pre-industrial levels and pursue efforts to limit this rise to 1.5°C,' electricity generation from low-carbon sources will need to grow to more than 80% over the next 30 years to limit temperature change to 2°C and even more than this for 1.5°C.

As a source of renewable power, Marine Wave Energy would complement existing wind and solar technologies, helping to provide a balanced supply. To reach the Committee for Climate Change's suggested target of Net Zero greenhouse gas emissions by 2050, it is important to develop technologies that can provide diversity and resilience to the UK's energy mix.

For more information about EPSRC's portfolio and strategies, see our website: <https://epsrc.ukri.org/research/ourportfolio/>

Funding available

Approximately £4.5 million (80% FEC) is available for this call. This is to fund research projects of up to £1million. Awards will be for 36 months duration. Applications must demonstrate how the proposed research clearly address the goals of the UK Research and Innovation Energy Programme:

<https://epsrc.ukri.org/research/ourportfolio/themes/energy/programme/>.

Equality, Diversity and Inclusion

The long term strength of the UK research base depends on harnessing all the available talent. EPSRC expects that equality and diversity is embedded at all levels and in all aspects of research practice and funding policy. We are committed to supporting the research community, offering a range of flexible options which allow applicants to design a package that fits their research goals, career and personal circumstances. This includes career breaks, support for people with caring responsibilities, flexible working and alternative working patterns. With this in mind, we welcome applications from academics who job share, have a part-time contract, or need flexible working arrangements.

Peer review is central to EPSRC funding decisions, we require expert advice and robust decision making processes for all EPSRC funding initiatives. We are committed to ensuring that fairness is fully reflected in all our funding processes by advancing policy which supports equality, diversity and inclusion. Please see our Equality and Diversity webpages

<https://epsrc.ukri.org/funding/equalitydiversity/> for further information.

Responsible Innovation

EPSRC is fully committed to develop and promote responsible innovation. Research has the ability to not only produce understanding, knowledge and value, but also unintended consequences, questions, ethical dilemmas and, at times, unexpected social transformations. We recognise that we have a duty of care to promote approaches to responsible innovation that will initiate ongoing reflection about the potential ethical and societal implications of the research that we sponsor and to encourage our research community to do likewise.

Responsible innovation creates spaces and processes to explore innovation and its consequences in an open, inclusive and timely way, going beyond consideration of ethics, public engagement, risk and regulation. Innovation is a collective responsibility, where funders, researchers, interested and affected parties, including the public, all have an important role to play. Applicants are expected to work within the EPSRC Framework for Responsible Innovation given on the EPSRC website (<https://epsrc.ukri.org/research/framework/>).

Guidance on Journal-based metrics

As part of our commitment to support the recommendations and principles set out by the San Francisco Declaration on Research Assessment (DORA; <https://sfdora.org/read/>), UKRI reviewers and panel members are advised not to use journal-based metrics, such as journal impact factors, as a surrogate measure of the quality of individual research articles, to assess an investigator's contributions, or to make funding decisions.

The content of a paper is more important than publication metrics, or the identity of the journal, in which it was published, especially for early-stage researchers. Reviewers and panel members are encouraged to consider the value and impact of all research outputs (including datasets, software, inventions, patents, preprints, other commercial activities, etc.) in addition to research publications. We advise our peer reviewers and panel members to consider a broad range of impact measures including qualitative indicators of research impact, such as influence on policy and practice.

Equipment

Equipment over £10,000 in value (inc. vat) is not available through this call. Smaller items of equipment (individually under £10,000) should be in the Directly Incurred - Other Costs heading.

For more information on equipment funding, please see: <https://epsrc.ukri.org/research/facilities/equipment/>

Eligibility

Please ensure sufficient time to create Je-S accounts for Investigators who do not currently have one.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide: <https://epsrc.ukri.org/funding/applicationprocess/fundingguide/>

A list of eligible organisations is provided at: <https://www.ukri.org/funding/how-to-apply/eligibility/>

How to apply

Submitting an application

The Intent to Submit at the bottom of the webpage for the call needs to be completed. Full proposals will only be considered from applicants who submitted an Intent to Submit by the deadline.

For the Full Proposal you should prepare and submit your proposal using the Research Councils' Joint electronic Submission (Je-S) System (<https://je-s.rcuk.ac.uk/>).

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Standard Proposal'
- Scheme 'Standard'
- On the Project Details page, select the 'Marine Wave Energy' call.

Note that clicking 'submit document' on your proposal form in Je-S initially submits the proposal to your host organisation's administration, not to EPSRC. Please allow sufficient time for your organisation's submission process between submitting your proposal to them and the call closing date. EPSRC must receive your application by **16:00 on Wednesday 23 September 2020**

For JeS support email JeSHelp@je-s.ukri.org. The helpdesk number is not currently in operation due to remote working, but it is possible to request a call back via email.

Guidance on the types of support that may be sought and advice on the completion of the research proposal forms are given on the EPSRC website (<https://epsrc.ukri.org/funding/applicationprocess/>) which should be consulted when preparing all proposals.

Guidance on writing an application

Applications must be made through Je-S. As well as the Je-S form, the following documents should be submitted:

- Case for Support: should be up to eight pages in total, to include:
 - Up to two-page track record, which should detail the relevant expertise that each investigator will bring to the research
 - Description of the proposed research focus and how this fits the aim and scope of the call. Please see the 'Assessment criteria'. This should include a clear statement of the proposal's vision, and how each strand of activity complements this vision.
- Justification of resources: should be up to two pages. This should be a narrative description of the need for the resources requested.

- Work plan: should be up to one page. It is not expected that this will be a Gantt chart for the whole time of the project, but should include a comprehensive plan for the start of the project and then refer to the management strategy to give appropriate milestones for when important decisions on the direction of the research will be taken. For advice on writing proposals see: <https://epsrc.ukri.org/funding/howtoapply/preparing/>
- Project partner letters of support - where appropriate, should detail how the partner is contributing to the project and a quantification of the value of this support.
- Letters of support – will only be expected in exceptional circumstances where a partner cannot be listed as a project partner, but could provide information directly pertinent to the execution of the workplan (e.g. subcontractors).
- Cover letter- an optional attachment which is not seen by peer reviewers. Please highlight any information which may be pertinent to the processing and peer review of the proposal.

Applicants should use the Ethical Information section on the Je-S form to demonstrate to peer reviewers that they have fully considered any ethical issues concerning the material they intend to use, the nature and choice, current public perceptions and attitudes towards the subject matter or research area. EPSRC will not fund a project if it believes that there are ethical concerns that have been overlooked or not appropriately accounted for. All relevant parts of the Ethical Information section must be completed. If the research will involve human participation or the use of animals covered by the Animals (Scientific Procedures) Act 1986 it is recommended that applicants pay particular attention to the guidance highlighted below. EPSRC reserves the right to reject applications prior to peer review if the Ethical Information sections are not completed correctly.

Further guidance on completing the Je-S form can be found at <https://je-s.rcuk.ac.uk/Handbook/pages/GuidanceonCompletingaStandardG/EthicalInformation.htm>

Other relevant guidance includes: EPSRC's policy on animal use in research (<https://www.epsrc.ukri.org/about/standards/animalresearchpolicy/>) and the Responsible Innovation Framework <https://epsrc.ukri.org/research/framework/>

Please note that on submission to EPSRC **all** non-PDF documents uploaded onto Je-S are converted to PDF, the use of non-standard fonts may result in errors or font conversion, which could affect the overall length of the document.

For advice on writing proposals see:

<https://epsrc.ukri.org/funding/howtoapply/preparing/>

User Engagement Strategy

Successful applicants will be required to develop and execute a strategy for engaging with potential users of the research funded in the project (resources for this activity can be requested but must be justified in the application). This strategy should be reviewed and updated regularly as part of the formal management of the grant.

The strategy should cover:

- how and when potential users have been / will be identified;
- what form the engagement will take;
- what steps will be taken to ensure that outputs of the research are made available to potential users;
- suitable metrics for determining the success of the strategy in delivering value to users.

Assessment

Assessment process

The call is for full proposals but an Intent to Submit must be completed by **16.00 Tuesday 14 July 2020**.

The Intent to Submit form is available on the call page on the EPSRC website. The Intent to Submit is to help EPSRC plan the postal peer review and the panel and is not for any assessment purpose.

The Full Proposal will be assessed by postal peer review. Proposals which do not receive sufficiently supportive reviews to be competitive at panel will be rejected. A PI response to the reviews will be requested for the sufficiently supported proposals.

The panel will then generate a rank ordered list of proposals. Based on the rank ordered list and the available funds a funding decision will be made and the appropriate proposals funded.

In the event of this call being substantially oversubscribed as to be unmanageable, EPSRC reserve the right to modify the assessment process.

Assessment criteria

Quality/excellence (primary criterion)

Reviewers are asked to comment on the degree of research excellence of the proposal making reference to:

- (1) The novelty, relationship to the context, and timeliness;
- (2) The ambition, adventure, and transformative aspects identified;
- (3) The appropriateness of the proposed methodology

Importance (secondary major criterion)

How the research:

- (1) Contributes to, or helps maintain the health of other disciplines, contributes to addressing key UK societal challenges and/or contributes to future UK economic success and development of emerging industry(s);

(2) Meets national needs by establishing/maintaining a unique world leading activity;

(3) Complements other UK research funded in the area, including any relationship to the EPSRC portfolio

Applicant (secondary criterion)

Reviewers will comment on the applicants' ability to deliver the proposed project making reference to:

(1) Appropriateness of the track record of the applicant(s);

(2) Balance of skills of the project team, including academic partners.

Resources and Management (secondary criterion)

Reviewers will comment on the effectiveness of the proposed planning and management and on whether the requested resources are appropriate and have been fully justified.

Proposal Assessment (secondary major criterion)

Reviewers will be asked to comment on how the research complements other UK research funded in the area, including any relationship to the EPSRC portfolio. Specifically applicants should address how the proposed research advances Marine Wave Energy research and contributes to meeting the Paris Treaty requirements.

Feedback

There will be no feedback from the Intent to Submit stage – there is no assessment of the Intent to submit. Feedback on the Full Proposal is provided by the reviewer's comments and, unless sifted prior to the meeting, the rank order list information published on EPSRC's Grants on the Web (GoW) system shortly after the meeting. Occasionally there is specific feedback from the prioritisation meeting which will be passed to the applicant.

Guidance for reviewers

Information about the EPSRC peer review process and guidance for reviewers can be found at: <https://epsrc.ukri.org/funding/assessmentprocess/review/>

Guidance for reviewing standard grants can be found here:

<https://epsrc.ukri.org/funding/assessmentprocess/review/formsandguidancenotes/standardgrants/>

Grant additional conditions (GACs)

Grants will be subject to the standard UK Research and Innovation grant conditions however the following additional grant condition will be added to this call (exact wording may vary):

GAC1: Grants awarded through this call for proposals are required to network together throughout their lifetime. As a minimum 2 workshops must be held: 1 in the first 18 months and a second before the grants close, as appropriate, in order to share outputs and co-ordinate on impact and stakeholder engagement.

GAC2: There is an expectation that grants awarded through this call for proposals will liaise with the Supergen ORE throughout their lifetime.

Moving forward

Submissions to this call will count towards the Repeatedly Unsuccessful Applicants Policy. Further information about the policy can be found at: <https://epsrc.ukri.org/funding/howtoapply/basics/resubpol/rua/>

Key dates

Activity	Date*
Call Opening date	Tuesday 2 June 2020
Intent to Submit due	16.00 Tuesday 14 July 2020
Full proposals deadline	16.00 Wednesday 23 September 2020
Panel	Early February 2021
Grant start date	Tuesday 6 April 2021

*EPSRC aims to adhere to the key dates as published, however there may be exceptions where the sift, prioritisation or interview meeting may have to change due to panel member availability.

Contacts

- Amy Spalding Amy.Spalding@epsrc.ukri.org 01793 444 449
- Edward Jones Edward.Jones@epsrc.ukri.org 01793 444 470
- Energy Team EnergyTeam@epsrc.ac.uk
- For Je-S related queries please contact the Je-s helpdesk:
 - Email: JeSHelp@je-s.ukri.org

- The helpdesk number is not currently in operation due to remote working, however a call back can be requested via email.
- Please also consult your research office for help and advice on writing your proposal.

Change log

Name	Date	Version	Change
Amy Spalding	30 April 2020	1	N/A

Appendices:

Je-S attachments Check List

Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	Eight pages	M	Comprising up to two A4 sides for a track record, and six A4 sides describing proposed research and its context.
Workplan	One page	M	
Justification for Resources	Two pages	M	
CVs	Two pages each	M	For named and visiting researchers, and researcher co-investigators only.
Project Partner Letters of Support	No page limits	Optional	Must be included from all named project partners. Must be on headed paper, and be signed and dated within

			six months of the proposal submission date.
Letters of Support	No page limits	Optional	In exceptional circumstances a maximum of three letters can be submitted.
Equipment Quotes	No page limits	Optional	
Equipment Business Case	Two pages each	Optional	Required for any items or combined assets with a value above the OJEU limit.
Proposal Cover Letter	No page limit	Optional	The cover letter can be used to highlight any important information to EPSRC. This attachment type is not seen by reviewers or panel members.