



Engineering and  
Physical Sciences  
Research Council

## Quick Reference

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

### National Nuclear User Facility Phase 2a Call

**Call type: Invitation for proposals**

**Closing date: 2 September 2020**

**Funding Available:** Up to £23million for in total, including £18.8million of capital provision and £4.2 million of associated resource costs. See funding section for details of what is permitted.

**How to apply:** Notify EPSRC of intent to submit by email to [nnuf@epsrc.ac.uk](mailto:nnuf@epsrc.ac.uk). Then this will be a single stage submission for full proposal.

**Assessment Process:** Proposals will be considered by the EPSRC Energy team for remit requirements before being assessed by postal peer review and then assessed by an expert panel producing a rank ordered list.

#### Key Dates:

Activity	Date
Inform EPSRC of intent to submit	24 June 2020, 16:00
Possible town meeting for potential applicants (videolink)	w/c 6 July 2020
Deadline for Full Proposals	2 September 2020, 16:00
Expert Panel	TBC early Dec 2020
Funding decision	TBC Dec 2020
Grant start date	From 1 April 2021

**Additional information:** NNUF is a distributed facility for the preparation and analysis of radioactive samples for the nuclear fission research community.

This is a call for equipment of significant size and value. Applications must be for equipment in excess of £400K.

**Applicants considering submitting a proposal must discuss their potential application with EPSRC as soon as possible.**

An Institution may lead on more than one bid.

Applicants must ensure that they submit a letter of support from their host institution. This statement must include a description of what support the host institution will provide, and that the host institution agrees to be responsible for these liabilities beyond the lifetime of the award and that the host institution accept the possible liabilities for any change in the costs of facilities or equipment that may happen post award but before a facility is commissioned. Please note this will include any future decommissioning liabilities.

Applicants should be aware that due to spend profile constraints some grants will not be able to start until later financial years.

Funding for these facilities will come with stringent reporting requirements. These can be found in the additional grant conditions section of the call document.

**Contacts EPSRC Contacts:**

Dr Neil Bateman, Senior Portfolio Manager, Nuclear Fusion: 01793 444496, email: neil.bateman@epsrc.ukri.org

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## National Nuclear User Facility Phase 2a Call

**Call type: Invitation for proposals**

**Closing date: 2 September 2020, 16:00**

**Related themes: Energy, Engineering, Physical sciences, Research infrastructure**

### 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

The National Nuclear User Facility is a distributed centre of excellence in nuclear science and technology dedicated to the provision of national and internationally leading facilities. It has two core activities: the operation of key facilities needed to undertake research and development for the operation and future development of nuclear plant in the UK, and the training of the next generation of nuclear scientists in core skills for the use of modern equipment. The first round of NNUF funding provided facilities located in both national laboratories and universities. Funding was now been made available for a second round of facilities as part of the National Nuclear Users Facility (NNUF Phase 2)

investment. Not all of this funding was allocated therefore, this additional call is being made in order to fill any remaining strategic gaps.

EPSRC is inviting eligible groups to submit proposals for equipment and facilities to carry out underpinning science and engineering research in nuclear fission. Up to £23 million (£18.8 million of capital provision and £4.2 million resource budget – see funding section for details) is available to provide, refresh and update underpinning multi-user equipment with a primary focus on nuclear energy research on active samples across the UK.

More information of NNUF can be found at <http://www.nnuf.ac.uk/>

Applications to this call will be assessed by postal peer review and by an expert peer review panel drawn from across the nuclear community, including key academic, industrial and international stakeholders. Postal peer comments will be made available to applicants before the review panel for an applicant response as per standard EPSRC process.

## **Background**

The National Nuclear User Facility (NNUF) was established in response to the Government Nuclear Industrial Strategy and was launched in March 2013. NNUF is a multi-site user facility for nuclear science and technology and aims to develop advanced nuclear technologies through collaboration between researchers from national research institutes, universities and industry. To further develop the capability of NNUF and UK nuclear research, the second phase of funding has been allocated by BEIS/UKRI. This will extend the capabilities commissioned in phase 1 of NNUF and enable a wider range of important technological challenges in the nuclear sector to be addressed, taking into account the recommendations of the independent Nuclear Innovation and Research Advisory Board (NIRAB).

EPSRC recognises that researchers from across the Nuclear Fission sector require access to high-quality research equipment to investigate radioactive materials. This equipment is essential in order to maintain UK research at an internationally leading level, and to train the next generation of researchers in cutting-edge techniques. Investment in state-of-the-art equipment that will be utilised by multiple users and enable a wide range of ambitious research projects will ensure that the UK remains at the forefront of scientific discoveries and pioneering innovation in the nuclear sector.

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

For more information about EPSRC's Nuclear Fission portfolio and strategy, see our website:

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

The objectives for the NNUF Phase 2 are:

1. To deliver cutting-edge, active, world-leading nuclear research facilities by the end of the financial year 2022/23.
2. To expand NNUF Phase 1 facilities and hence the UK nuclear capability, complementing the BEIS Nuclear Innovation Programme, over financial years 2019-2022/23.
3. To develop innovative technical capabilities and solutions in key strategic areas, from financial year 2020/21 and onwards, as identified by NIRAB.
4. To enhance the position and reputation of the UK in nuclear research over the coming decade by increasing the output of high-impact research.
5. To enable the development of affordable, cost-effective solutions for national research by 2025 in support of the new-build and future decommissioning programmes.
6. To underpin the economic competitiveness of the UK nuclear sector for 2025, as new build reactors come online, and beyond, enabling growth for export opportunities, and enhance our ability to act as an intelligent customer, operator and regulator.
7. To stimulate the creation of advanced training opportunities and high value science and engineering jobs from financial year 2020/2021 for the long term benefit of the nuclear sector.
8. To enable national and international research collaborations from financial year 2020/2021 between academia and industry at NNUF facilities.

Two community consultations identified projects for urgent nuclear infrastructure and were prioritised by the NNUF Working Group within the overall budget of £60 million originally proposed by the Department for Business, Innovation and Skills (now BEIS) in 2014.

As part of the business case from EPSRC to BEIS, a list of equipment and facilities was presented, drawn from consultation with the research community. Much the original list was procured in the first Phase 2 call, the remaining prioritised facilities are given in the Appendices to this call document. Proposals can now be made for any of these remaining pieces that are not site specific (those facilities that have to go into the National Nuclear Laboratory or Culham Centre for Fusion Energy). The site specific items are indicated in the equipment list in the Appendices.

Phase 2 of NNUF funding will support major new nuclear facilities focussed on research challenges not covered by current investment. This includes;

- Analytical equipment suitable for hosting in universities with nuclear capability,

- Expansion of facilities at the National Nuclear Laboratory and the UK Atomic Energy Agency Culham site to add new national capabilities involving radioactive materials.
- Dedicated laboratories, either at universities or suitable institutions,

**Items of equipment or facilities that are not in the list of equipment in the Annex may also be requested, but applicants must demonstrate how these will fit within the remit of the NNUF, and fall within the scope of EPSRC's Nuclear Fission remit.**

### **Other key considerations**

- Equipment must meet particular specified and evidenced national or discipline requirements.
- Equipment for multi-disciplinary nuclear fission research areas (for instance straddling several departments or research centres) is particularly encouraged.
- Equipment that will be used across a national or regional grouping of universities is also encouraged.

Please note the following:

- Capital funding and resource funding is available from this call, associated running costs and other resources required such as technical staff costs can be included in resource funding requests. Please note that resource will only be available until the end of FY 2022/23 after which the facilities will be expected to be self-sustaining.
- There is no limit to the number of applications made per institution, however institutional support is required, and a separate application must be made for each piece of equipment/facility applied for, unless a case can be made that a 'bundle' of listed equipment or facilities can be operated as an effective research and development cluster.
- The principal investigator (PI) time will not be chargeable to the grant, in line with standard EPSRC facility application rules <https://epsrc.ukri.org/research/facilities/>.
- EPSRC will award capital costs at 100% Full Economic Costing (FEC). The quoted cost of an item should include VAT, delivery charges and have any academic or other discount subtracted. Particular care must be taken where currency conversions are required. EPSRC will not adjust awards on the basis of incorrect calculations. Capital costs must be costed under Directly Incurred equipment. **Please note that adjustments will not be made should the cost of equipment should rise due to currency fluctuations after an award has been made.**
- EPSRC will award resource costs (technician time, management costs etc) at 80% FEC as per normal facility application rules.

- As the focus of the call is underpinning multi-user equipment for the preparation and analysis of radioactive samples, high performance computing equipment is excluded.
- Any equipment requested must support research that is very clearly centred in EPSRC Nuclear Fission remit, or for materials that cross the nuclear fission and nuclear fusion remits.
- Institutional contribution towards equipment is not required in this instance, however we do expect contributions towards resource/sustainability, especially after the end of the grant period.
- Laboratory refurbishment costs are allowed, at 100% FEC, **only** if these are shown to be directly related to the housing of the equipment requested.
- All equipment and facilities requested must be state aid compliant.
- How the host institution will encourage the facilities to be used to train new users as nuclear-capable scientists and engineers must also be explained.

Applicants must note that duplication of existing facilities is to be avoided, as is the procurement of facilities that are planned for current initiatives such as the Sir Henry Royce Institute (SHRI). Any applications for equipment that is going into institutes such as the SHRI will need to make it clear why the equipment is not being provided by these institutes' core budget. Applications that are found to duplicate existing facilities will be rejected.

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

## **Funding available**

Up to £23 million of funding is available to support this part of NNUF Phase 2.

### **Funding for capital and resource provisions**

Of the £23 million funding:

- Up to £18.8 million is available for capital purchases.
- Up to £4.2 million is available to provide installation operational/technical support to the equipment at the host institutions.

The capital and resource budget will be allocated to successful applicants based on the advice of the expert peer review panel. A profile for capital/resource expenditure will be agreed between the host institution and EPSRC before the grant is authorised and funding is allocated. Applicants should provide, as part of the case for support, a preferred expenditure profile for the full duration of the grant. However, EPSRC reserves the right to adjust the profile of the funding allocation prior to award and/or during the course of the grant following consultation with successful applicants. There will be no slippage or transfer of funds allowed between financial years (April 1<sup>st</sup> to March 31<sup>st</sup>).

Please note that funds for Travel and Subsistence and Post-Doctoral Research Assistants are not permitted in equipment/facilities applications.

**Funding for supporting NNUF phase 2 facilities ends on 31 March 2023. Therefore, no application should ask for support beyond this date.**

### **Institutional Support**

All institutions involved in an application must show significant support for the proposal. We expect all applicants to provide a letter of support demonstrating their institution's commitment to support the hosting of the equipment or facilities. The letters of support should include:

- The anticipated industrial demand, supported with documentation from the industrial user community.
- The anticipated academic demand, including evidence of support from the Host University and institutions after the four years of support are over.
- What proportion of future work is expected to be supported via EPSRC and IUK grants (plus other funding agencies), versus industrial usage,
- The relevance of the proposed facilities to the BEIS nuclear strategy, the Nuclear Industry Strategy, the proposed UK new build programme and the nuclear sector deal.
- That the host institution will support the facilities beyond the initial four years of funding and agree to cover all subsequent liabilities, including the eventual decommissioning of the facilities, and agreement that if the cost of the facilities rise between the allocation of the funds and the installation of the facilities that the host institution accepts liability for the increased costs.
- The institutional support should also make clear that the host institution has the necessary permissions/licences to host the equipment or facilities being applied for and are able to undertake work on radioactive specimens.

### **Accessibility and Usage**

As NNUF is a multi-user facility applicants are required to demonstrate in the case for support how they will maximise usage of the equipment and facilities from users across the UK and internationally. Applicants are required to include a user access strategy for allowing some access to be free at the point of use for academic researchers working within the UK nuclear community (using funds administered by the NNUF management group), applicants must be prepared to work with the NNUF programme management group to ensure that access to the equipment or facilities is open to those outside of the host institution. A facilities access agreement must be signed between the host institution and the NNUF programme management group.

EPSRC expect to see evidence that applicants have engaged with industry and other users during the preparation of their proposals. Effective collaborative arrangements, when necessary, must be in place when partnering with non-University research groups/organisations before the grant begins.



Applicants also need to consider how access to potential international users may be facilitated.

### **Management, monitoring and reporting**

Due to the complexity of NNUF Phase 2 and its integration with current NNUF Phase 1 facilities, applicants should understand that there will be strict governance and reporting requirements that will be overseen by the NNUF programme management group throughout the lifetime of the equipment and facilities funded, including following the end of EPSRC funding. Successful applicants will be subject to gateway assurances processes by EPSRC after funding is released.

Host Institutions will have to report to the NNUF Programme Management Group every six weeks against the draft criteria listed below. Please note that this list may change throughout the lifetime of the award.

- Progress against commissioning and expenditure targets.
- The availability and usage of installed NNUF research facilities, including number and type of user.
- The delivery of training, and new initiatives in supporting a SQEP (Suitably Qualified and Experienced Person) workforce.
- The output of technical reports, patents and publications across the range of thematic areas identified by the community as being of the highest priority (including publications generated from the external projects utilising the facility).
- Opportunities for international collaboration and partnership.
- Dissemination activities, e.g. opportunities to use the facilities are advertised widely.
- R&D / industry projects utilising the facility and revenues raised.
- Monetary value of projects utilising the facility.
- Other evidence of the impact of the research undertaken on the facilities

### **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

This call is for equipment over £400K, either individual items or suites of equipment that provide a specific, defined capability. **In order to ensure that equipment is paid at 100% applicants needs to make sure that the charge for the equipment plus VAT and Import Duty is the same as what is inputted in the 'Amount Sought' box when entering the details in Je-S.**

For more information on equipment funding, please see: <https://epsrc.ukri.org/research/facilities/equipment/>  
Version 11 March 2020

## 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

**Before submitting a full proposal applicants must send an Intent to Submit email to the NNUF Inbox** ([NNUF@epsrc.ac.uk](mailto:NNUF@epsrc.ac.uk)) stating the PI name, the host institution and any other involved institutions, the facility or equipment being requested and the approximate cost. Please note that this information will be considered as indicative only.

#### Full proposal submission

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 you should select the 'National Nuclear User Facility Phase 2a' 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 2 September 2020.

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 include the following documentation:

- Case for Support (10 pages) including sections on

- Institutional strategy and support
  - Description of the equipment/facility
  - Research enabled
  - National Importance
  - Training for new users.
  - Sustainability. This should be backed up by a letter of support from the host institution.
  - Management
  - Encouraging and supporting external access.
  - Preferred spend profile for the purchase, installation and commissioning of the equipment/facility, and on-going technician support. **This must be tabulated.**
- Business Case (2 pages) per piece of kit over the OJEU threshold.  
<https://epsrc.ukri.org/research/facilities/equipment/process/strategiequipmentprocess/>
  - Work Plan, including site preparation, procurement and installation timelines (1 page).
  - Justification of Resources (2 pages), this should include a table in order to make it clear where and what the costs are.
  - Equipment Quotes from 3 sources (no page limit).
  - Proposal cover letter, this should include any additional information we should be made aware of.
  - Letter of support from project partners (1).
  - User letters of support (3)
  - Letter of support from Host Institution (2 pages), this should include a commitment to support for the running of the facilities after the grant expires and for any decommissioning costs. This should be attached as a letter of support.
  - User engagement strategy (1 page, uploaded as 'other attachment')

### **Case for Support (up to 10 pages)**

### **PI Track record and background in running a facility or facilities. (up to 1 page)**

### **Institutional Strategy and Support (up to 2 pages):**

A summary of the institutional strategy for capital investment to include:

- How the request aligns to the Institution's own priorities and strategies for equipment or facilities.
- What is the added value from existing equipment or facility, support or infrastructure in place at the institution?
- How the university approaches the sustainability of its underpinning multi-user equipment base generally.
- How the university manages its equipment base to maximise usage and encourage sharing.
- How the equipment will be supported (technical expertise and running costs), maintained and updated during and beyond the duration of this funding. Any direct institutional contributions to these purchases should be clearly stated.
- Anticipated access charges and arrangements for users, both academic and industrial, especially for when the core support grant for academic access to the management group ends.
- How the proposed equipment underpins and adds value to the organisation's EPSRC funded research portfolio.
- How the equipment will be procured e.g. outline the procurement process which the university undertakes to ensure value for money has been sought for the tendering of equipment purchases.
- What licencing/environment agency agreements are in place that will allow active material research to take place? If not in place what measures are being taken to secure them?

### **In the remaining seven pages**

#### **Description of the Equipment/ Facility**

- A clear definition of the equipment or facility requested in line with the equipment list given in Annex 1. If an additional facility is requested, it must be shown how it lies within the scope of EPSRC's Nuclear Fission remit and how it adds to the ambitions of the NNUF project.
- Role of this equipment in the UK landscape – technical information about the equipment, capability and what makes it different from other, similar equipment available to the UK research community.
- Aims and vision for each item of equipment.

#### **Research Enabled**

- Details of the science that this equipment will enable and/or underpin. Where the equipment will be used in conjunction with existing research funding, please provide a table listing a selection of relevant projects and indicate how each will benefit from the equipment or facility. The research should be set in an international context, identifying areas of competitive strength.

## **National Importance**

Please describe the extent to which science is enabled over the long, medium and short term to:

- Contribute to, or help maintain the health of other research disciplines
- Address key UK societal challenges, contribute to current or future UK economic success and/or enable future development of key emerging industry(s)
- Meet national strategic needs by establishing or maintain a unique world leading research activity (including areas of niche capability), particularly taking into account the recommendations of the Nuclear Innovation and Research Programme (NIRAB) <http://www.nirab.org.uk/> .
- Fit with, and complements, other UK research funded in the area or related areas, including the relationship to the EPSRC portfolio and strategy (<https://www.epsrc.ac.uk/research/ourportfolio/>)

## **Training**

As this call focuses on multi-user underpinning equipment, there is an expectation that the equipment and facilities will be used to train students, graduates and industry users in state of the art 'nuclear capable' equipment and techniques. Please detail what proportion of users will require training (e.g. post-doctoral research assistants, students) and how the training will be provided to establish the external users as independent users of the facilities. Note that studentships cannot be costed to the grant application.

## **Sustainability**

Plans for ensuring future sustainability, both during the grant award and beyond. This should include a description of how running costs associated with the equipment (technical staff, consumables, maintenance etc.) will be covered after the end of the four year funding period, for example from paid access. In addition, applicants could consider the institutional strategy to address the cost of upgrade and/or replacement of the equipment if appropriate.

Information on the wider user base that could benefit from access to this equipment, including how you intend to engage with potential users, and encourage and facilitate external access – especially by students from other institutions.

Detail what the decommissioning requirements are likely to be at the end of the equipment's life. The liability for this should be clearly accepted in the host institution letter of support.

## **Management**

Please note that there will be an NNUF programme management group that will oversee the whole distributed NNUF facility. However, each host site will be responsible for managing the day to day running of the individual pieces of equipment/facilities. Therefore a description of the overall management of the equipment should be provided in the case for support, including:

- Maintenance and general upkeep of the equipment/facility.
- Management of access –application/assessment process and prioritisation strategy.
- Suggested key performance indicators for usage and management which will enable monitoring of the quality and impact of the equipment usage to be reported to the NNUF management group every 6 weeks using the template developed in the earlier phases. The template will be provided by the management group.
- How the equipment/facility will be made available to the user community and access managed and prioritised.

Please note that potential hosts may have to participate in gateway review processes after funds are released. This is a BEIS function and is not negotiable if requested.

### **Business Case (up to 2 pages of A4):**

As per normal practice whereby each item of equipment or combined asset which is included in a proposal that costs more than £138,000 including VAT must be accompanied by an Equipment Business Case, a business is required for all NNUF applications. Please follow the headings and guidance given on the EPSRC website:

<https://epsrc.ukri.org/research/facilities/equipment/process/researchgrants/>

**Work Plan** (up to 1 side of A4) This should include:

- Details of the timescales for any building or refurbishment
- Details of the procurement process for equipment or facilities
- Timescale for delivery, installation and getting the equipment fully operational.

### **Justification of the resources requested (up to 2 pages of A4):**

For the equipment/ facilities this should be in tabular format to include the following headings:

- Equipment.
- Chosen vendor(s)
- Cost
- Justification; to include:
  - Why the particular equipment specification requested represents best value for money and how it will meet the needs of the research.
  - Explanation if there is only a sole supplier for equipment (no page limit).

The justification must also make the case for all other costs such as technical support, running costs, consumables etc.

A minimum of three quotes are required for any piece of equipment costing £138,000 including VAT or above. Prior to uploading quotes, please remove the pages of standard terms and conditions from each quote. These contractual terms do not assist the peer review process and add considerably to the volume of paperwork for the panel. If there are only one or two suppliers of the equipment, the available quotes should be uploaded then additional blank dummy quotes should be uploaded to enable the proposal to pass the Je-S validation checks. **Please ensure that these are not attached as "Other" documents as these are not seen by peer review.**

### **Project Partner Letters of Support (maximum 1)**

A single, consolidated, pdf of any project partner statements of support must be attached for every project partner identified; only one letter is allowed per organisation. Each letter must be on headed paper, signed, and dated within 6 months of the application date to EPSRC. Project partners must be making a contribution to the proposal which should have an approximate financial value attached to it. The vendor's academic discount should not be included as a contribution. The host organisation cannot be a project partner. **Please note that a zero, or nominal value for contributions from a project partner is not permitted.**

### **User letters of support. (maximum 3)**

Letters of support from expected main users of the facility external to the applicant institution should be included.

### **User Engagement Strategy (1 page)**

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 as part of the Pathways to Impact and 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.



**Please note that this is not the same as the plans for users to access the facilities that should be described in the case for support.**

## **Additional Information**

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 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**

Applications to this call will be assessed by postal peer review with applicants having the right to respond to review comments. The proposals will then be ranked by a specially convened expert peer review panel drawn from across the nuclear community including key academic, industrial and international stakeholders.

Applications that are judged to be out of remit for this call will be rejected prior to panel.

Recommendations to fund will be made on the criteria below and proposals will be ranked by the panel that will produce a rank ordered list using the assessment criteria. The final rank ordered list will be available on EPSRC Grants on the Web system (<http://gow.epsrc.ukri.org/>) when applicants are informed

## **Assessment criteria**

Proposals will be assessed on their fit to the scope of the call, and to the following criteria.

### **Quality (Primary Criteria)**

- The novelty, relationship to the context and timeliness of the research that could be undertaken on the equipment/facilities.
- The ambition, adventure, and transformative aspects of the research that will be enabled by the equipment.

### **Importance (Secondary Criteria)**

- National importance of the research that will be supported on this equipment/facilities on a 10-50 year timescale.
- Fit to NNUF objectives (see page 6 of this document).
- Contribution to other research areas, societal challenges, success of the UK economy, emerging industries.
- Strategic fit within the existing EPSRC portfolio. How the proposed equipment supports the institutional strategy, underpins EPSRC's strategic priorities and adds value to previous EPSRC investments and to the UK national nuclear strategy.

### **Applicants' and/or partnerships ability to deliver the proposed facility (Secondary Criteria)**

- Balance of skills of the proposed project team.
- The applicants track record in delivering training and support to external users.

### **Resources and management (Secondary Criteria)**

- The effectiveness of the proposed planning and management, including the identification and management of risk.
- Appropriateness of the estimated resources requested.
- Strength of the proposed process for encouraging and managing access to the equipment.
- **Sustainability:** Proposals must be for a maximum duration of two years and should show a clear plan for sustainability after the two year period. No additional funding will be available.

## Feedback

Feedback following the review panel will be provided to the principal investigator and host organisation following funding decisions.

## 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 conditions will be added to this. Please note that these conditions are BEIS instructions and are non-negotiable.

**GAC01** The recipient Institution must provide to the NNUF management group a six weekly progress statement against procurement progress, including expenditure made and anticipated.

**GAC02** The PI must maintain and update a risk register for their equipment/facility and report to the management group every six weeks

**GAC03** Funds must be spent to the spend profile allocated by EPSRC and expenditure must be reported to the NNUF management group in the six weekly report.

**GAC04** As NNUF funding is provided by UKRI to a fixed profile the grant may have a fixed start date and end date that will be provided by EPSRC after the ranking panel. The project must start on the announced start date, no slippage to the start date will be allowed. The project must finish on the end date, no extensions will be given. Therefore, the university should have a plan for dealing with any unforeseen staff issues and unanticipated delays.

GAC05 Any time or cost overruns are the responsibility of the host institution and that delays in procurement may result in funds no longer being available.

GAC06 The actual final spend on the capital item(s) and on the support funds must be reported to EPSRC via the final expenditure statement process at the end of the grant.

GAC07 Expenditure profiles submitted may be changed by EPSRC in order to meet BEIS expenditure direction. However, this will not affect the total funding – only the profiles may change.

GAC08 With respect to the capital equipment associated with this grant and in line with the recommendation made in Sir Ian Diamond's report "Efficiency, effectiveness and value for money" that "All new equipment purchased using public funding sources and over the OJEU threshold should be registered on the equipment.data.ac.uk national database to enable greater sharing" the equipment purchased over the OJEU limit, with this grant must be discoverable through equipment data.

GAC09 Any equipment over £138,000 including VAT limit, purchased under this grant is considered by EPSRC to be a part of your university's EPSRC capital equipment portfolio and institutions are required to provide information regarding this equipment as part of your university's annual equipment report to EPSRC.

## 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
Inform EPSRC of intent to submit	24 June 2020, 16:00
Possible town meeting for potential applicants (videolink)	w/c 6 July 2020
Deadline for Full Proposals	2 September 2020, 16:00
Expert Panel	TBC early December 2020
Funding decision	TBC Dec 2020
Grant start date	From 1 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

For queries relating to the JeS system please contact [Je-SHelp@rcuk.ac.uk](mailto:Je-SHelp@rcuk.ac.uk). Please note that applicants can request a call back via email.

For advice on writing your proposals please contact your university research office.

Please do not forget to allow sufficient time before the closing date for your organisations submission process.

Dr Neil Bateman, Senior Portfolio Manager, Nuclear Fusion: 01793 444496, email: [neil.bateman@epsrc.ukri.org](mailto:neil.bateman@epsrc.ukri.org)

Dr Elizabeth Bent, Portfolio Manager, Nuclear Fission: 01793 444426, email: [Elizabeth.bent@epsrc.ukri.org](mailto:Elizabeth.bent@epsrc.ukri.org)

Dr Strachan McCormick, Portfolio Manager, Energy Networks and Systems: 01793 444262, email: [Strachan.McCormick@epsrc.ukri.org](mailto:Strachan.McCormick@epsrc.ukri.org)

Please ensure the NNUF email inbox is copied into all correspondence with EPSRC:

[NNUF@epsrc.ac.uk](mailto:NNUF@epsrc.ac.uk)

## Change log

Name	Date	Version	Change
Neil Bateman	12 May 2020	1	Call document written
Neil Bateman	13 July 2020	1.1	Clarification of JeS form instruction for equipment costs

## Appendices

### Je-S attachments Check List

#### Standard:

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	10 pages	Mandatory	Comprising up to two A4 sides for a track record, and eight A4 sides describing proposed facility/equipment and its context.
Workplan	1 page	Mandatory	

Justification for Resources	2 pages	Mandatory	
CVs	2 pages each	Optional	For named and visiting researchers, and researcher co-investigators only.
Project Partner Letters of Support	No page limits	Mandatory	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	Mandatory	In this application one letter of support, plus an additional institutional letter of support.
Equipment Quotes	No page limits	Mandatory	
Equipment Business Case	2 pages each	Mandatory	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.
Other attachment	No page limit	Optional	This can be used for a document that does not fit under any of the headings above. This attachment type is not seen by reviewers or panel members.

Please ensure you adhere to the above attachment requirements when submitting your proposal. Any missing, over length or unnecessary attachments may result in your proposal being rejected.

## List of strategic equipment and facilities supported in NNUF phase two.

An Atomic-Scale Characterisation Facility for Active Nuclear Materials
UTGARD LAB PHASE II: A SIMFUEL FABRICATION & CHARACTERISATION FACILITY
NNUF-HR: National Nuclear User Facility for Hot Robotics
HADES: A User Facility for High Activity Decommissioning Engineering Science
National Nuclear User Facility: Radioactive Waste Disposal and Environmental Remediation (RADER).
National Nuclear User Facility Phase 2: Management Grant
An active materials laboratory for the UK synchrotron with associated equipment
Development of a High Flux Accelerator-Driven Neutron Irradiation Facility for Nuclear Plant Materials and Applied Neutron Science
Next Generation Accelerated Characterisation Technologies (EXACT)
UK Irradiated Materials Archive Options Study
Active Nano Mapping Facility - ANM NNUF2
National Nuclear User Facility at the Centre for Radiochemistry Research (CRR)
AMS-UK: A UK Accelerator Mass Spectrometry Facility for Nuclear Fission Research
Radiochemical Facilities for the Molten Salts in Nuclear Technologies Network
Plasma Accelerators for Nuclear Applications and Materials Analysis (PANAMA)
Sim-Fuel and Alpha-Active Material Manufacturing and Characterisation Capability



**Items identified in the original consultation that have not yet been supported.**

Priority	Title	Site Specific	Purpose
1	Multiphase thermal hydraulics facilities for engineering development	No	Training platform for multi-phase fluid flow systems in support of new build programme.
2	Combined $\gamma$ -ray and neutron tomography	No	To allow for combined gamma-ray and neutron tomography of shielded radioactive materials.
4	Mechanical testing suite and Advanced sample preparation	UKAEA – Culham	Expanding capabilities in Phase 1 Materials Research Facility
5	Materials Research Facility – phase 2	UKAEA – Culham	Expanding hot cell facilities.
6	Integrated low active materials interface for users	UKAEA – Culham	Facilitating active materials transport in UK
7	Upgrade of Focused Ion Beam facilities	UKAEA – Culham	Enhanced capability in the analysis of radioactive and irradiated materials.