

Quick Reference

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

Energy Demand Reduction in the Built Environment

Joint India/UK Call for Proposals

Call type: Invitation for proposals

Closing date: 15 March 2017 at 16:00 (GMT; please note that the deadline in India is 17:30 on 15 March, India Standard Time)

Funding Available: EPSRC and ESRC, as part of the RCUK Energy Programme, expect to commit up to £3.8M for 4 or 5 proposals of up to 4 years in length. This will be matched by equivalent funding from the Department of Science and Technology (DST), India.

How to apply: Full proposals should be submitted by 15 March 2017.

Assessment Process: Full proposals will undergo peer review in the UK and India and a panel composed of Indian and UK experts will prioritise proposals for funding.

Key Dates:

Activity	Date
Deadline for Full Proposals	15 March 2017
Prioritisation Panel	Late June/early July 2017
Funding decision	July 2017
Grant start date	1 September 2017

Additional information: Only proposals that involve academic collaboration between the UK and India will be considered. Indian and UK principal and co-investigators must be academic researchers from institutions eligible to apply for DST or Research Council funding respectively. All proposals must have equal or proportionate participation from UK and Indian researchers. This activity is supported through the Newton Bhabha Fund.

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Energy Demand Reduction in the Built Environment

Joint India/UK Newton Bhabha Fund Call for Proposals

Call type: Invitation for proposals

Closing date: 15 March 2017

Related themes: Energy

Summary

The Government of India's Department of Science and Technology (DST) and EPSRC and ESRC, as part of the Research Councils UK (RCUK) Energy Programme, jointly invite proposals for collaborative research projects focussing on reducing energy demand in the built environment as part of the Newton Bhabha Fund.

RCUK and DST are looking to strengthen collaboration between UK and Indian research institutions. India is one of the RCUK priority countries for increasing research collaboration, with the objective of pairing the best UK researchers with the best overseas. Likewise, DST also accords high priority to research collaboration with the UK.

The call topic of reducing energy demand in the built environment was agreed upon through a dialogue between the RCUK Energy Programme and DST. The topic was discussed at a joint India/UK workshop in New Delhi in April 2016 and a number of priority areas were identified. The report of the workshop can be found at: <http://www.rcuk.ac.uk/documents/india/indo-uk-workshopreport-pdf/>.

On behalf of the RCUK Energy Programme this call is being administered on the UK side by EPSRC, as part of the Newton Bhabha Fund. However, interdisciplinary proposals which include social science in the remit of the UK's [Economic and Social Research Council](#) (ESRC) are strongly encouraged.

The topic aligns closely to EPSRC's End-Use Energy Demand Research area <https://www.epsrc.ac.uk/research/ourportfolio/researchareas/energyefficiency/> and DST's Clean Energy Research Initiative (CERI; <http://www.dst.gov.in/clean-energy-research-initiative>).

Only joint UK/India collaborative proposals are eligible for the call. In addition applicants must fulfil eligibility requirements of the UK Research Councils or DST as applicable.

Proposals will be assessed by expert peer reviewers, and those that are sufficiently strongly supported will be advanced to a funding prioritisation panel in June/July 2017. Funding decisions are expected to be made in July 2017.

Background and Scope

Globally, energy demand reduction and energy efficiency are recognised as the most effective interventions to meet the 2050 greenhouse gas reduction target, in order to mitigate climate change. Reducing energy demand also makes access to clean energy more affordable and improves energy security, thereby addressing all three aspects of the energy trilemma in a cost-effective way.

Energy demand can be reduced by better energy efficiency, increased control and hence reduced waste and changes in practices/behaviour. These three methods are interlinked in complex socio-technical ways and this call aims to fund research into a more complete understanding of this relationship. Interventions can also be effective at different levels of scale from the single building level up to national level.

Three topics for the call have been identified, and applicants must indicate how their proposed research would address **at least one** of these topics:

- Peak demand reduction through improved building envelopes, low-energy cooling & heating, social practices of adaptive thermal comfort and post-occupancy evaluation.
- City- and community-level energy efficient technologies, research to provide guidance to urban planning, and community design and management for energy.
- Integration of information, communication and renewable energy technologies at building, community, and city level interventions.

Collaborative efforts to establish information and communication technology (ICT) based building energy benchmarking, future stock modelling and energy demand forecasting, which may include end-use data and existing building data, may also be included as part of facilitating the above research.

Interdisciplinary proposals, considering the socio-economic factors of energy demand interventions in the above areas, are strongly encouraged.

For more information about EPSRC's portfolio and strategies, see our website: <https://www.epsrc.ac.uk/research/ourportfolio/>. For more information about ESRC's research, see <http://www.esrc.ac.uk/research/our-research/>.

Information on the six UK EPSRC-ESRC Centres in end-use energy demand can be found at: <http://www.eueduk.com/>.

DST's portfolio and strategies can be accessed at: <http://www.dst.gov.in/technology-mission-clean-energy-and-water>.

The Newton Bhabha Fund

The Newton Bhabha Fund aims to bring together the UK and Indian scientific research and innovation sectors to find joint solutions to the challenges facing India in economic development and social welfare. The scheme is part of the

UK's £375 million Newton Fund to support science and innovation partnerships between the UK and emerging powers.

The Newton Bhabha Fund will use the UK's strengths in research and innovation to support greater scientific research capacity in India and build research partnerships between British and Indian research institutions.

Funding available

The RCUK Energy Programme expects to commit up to £3.8M on 4 or 5 research programmes of up to four years in length for the UK partners. DST expects to commit equivalent funding to the Indian partners.

Equipment

Equipment is not available through this call from UK funding.

For more information on equipment funding, please see:
<https://www.epsrc.ac.uk/research/facilities/equipment/>.

However, Indian partners are eligible for equipment funding not exceeding 30% of the project cost. Additionally, demonstration units can also be supported up to 20% of the project cost.

Eligibility

Standard EPSRC eligibility requirements apply for the UK team in this activity. For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide:
<https://www.epsrc.ac.uk/funding/howtoapply/fundingguide/>.

For information on the eligibility of organisations and individuals to receive EPSRC funding, see the EPSRC Funding Guide:
<https://www.epsrc.ac.uk/funding/howtoapply/fundingguide/>. A list of eligible organisations to apply to EPSRC is provided at:
<http://www.rcuk.ac.uk/funding/eligibilityforrcs/>.

The researchers in India should be based in a regular faculty in Indian academic or recognised R&D institutions. Potential Indian partners should contact DST directly if they are unsure of their eligibility to apply through this call.

Only proposals that involve academic collaboration between the UK and India will be considered. All proposals must have equal or proportionate participation from UK and Indian researchers.

How to apply

Submitting an application

Lead partners

A UK-based lead partner and an India-based lead partner should be identified, each of whom will lead on interaction with the funding agency in their respective countries.

The costs of the UK institutions will be met from EPSRC through the Newton Fund, and those for the Indian partner institutions will be met by DST.

EPSRC will handle proposals for UK applicants. This is a joint application to DST and EPSRC and applicants should ensure that identical applications are submitted by the closing date to both DST and EPSRC.

The UK application should be submitted through the UK Research Councils' grant submission system, which is known as Je-S. The UK researchers' submission must include the partner Indian research organisations as Project Partners, including the total amount of money requested from DST. An Indian Reviewer Nomination form and 'Undertaking' form must also be included in the submission; these forms are available to download from the call page on the EPSRC website.

The DST application should be a hard copy of the UK Je-S form and attachments (this can be printed directly from Je-S).

Submissions must include financial and project information for both UK and Indian components of the joint programme. Applicants must ensure that all documents are submitted to both EPSRC via Je-S and DST. For further details, see the Je-S submission guidance below.

The deadline for receipt of proposals for DST and EPSRC is 16:00 UK time on 15 March 2017. Applications to DST must be received by 17:30 Indian time on 15 March 2017. We will not accept late applications.

Submitting the application – UK lead partner

The UK-based lead partner should prepare and submit a proposal using the Research Councils' Joint Electronic Submission (Je-S) System <https://je-s.rcuk.ac.uk/JeS2WebLoginSite/Login.aspx>.

Both single and multi-institutional bids are invited. However, proposals must be submitted on one common Je-S proposal form even if they are multi-institutional bids.

When adding a new proposal, you should select:

- Council 'EPSRC'
- Document type 'Standard Proposal'
- Scheme 'Newton Fund'
- On the Project Details page you should select the 'UK-India Reducing Energy Demand in the Built Environment' 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 GMT on 15 March 2017**.

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://www.epsrc.ac.uk/funding/howtoapply/fundingguide/resources/>) which should be consulted when preparing all proposals.

When we receive your application through Je-S, you cannot make any amendments or additions. Therefore please make sure that all supporting documents are secured well in advance of the closing date.

We will contact you if there is a problem with your application. Any delay in your proposal will jeopardise the quantity of reviews we receive on your application which may affect the final panel decision.

Submitting the application – India lead partner

Guidance on writing an application

The following Documents are required:

- Case for Support: up to 8 pages
 - Up to two sides of A4 detailing the track record of the applicants, justification of the added value offered by the assembled collaborative team and how this grant will complement the group's other activities.
 - The remaining 6 pages should include a description of the proposed research, and its context (including the Indian and UK national importance of the work) and the proposed methodology. It should also include:
 - Detailed arrangements for project management in terms of milestones and deliverables, outlining how linkages between UK and Indian researchers are to be managed.
 - Full details of both the UK and Indian researchers' contributions to the project.
 - Full details of the involvement of non-academic project partners (e.g. industrial collaborators and other research users), including contributions being provided by these organisations and their role in transfer of research outputs into practice. Project partner letters of support should be included as appropriate.
- Pathways to impact: up to two pages

Outline the potential pathways to impact and any appropriate requested resources. Pathways to impact in the Indian context should be the primary focus.
- Work Plan, 1 page.

A diagrammatic work plan including milestones
- Justification for Resources: up to two pages

Please explain and justify the costs for both the UK and Indian partners
- Data management plan: up to two pages

- Official Development Assistance (ODA) statement: up to one page (attachment type 'Non-UK components')

A short statement which addresses the questions at:
<http://www.newtonfund.ac.uk/about/what-is-oda/>.

- CVs (up to two pages each) for named researchers, visiting researchers and researcher co-investigators only, where applicable. CVs for investigators are not required and will not be accepted.
- 'Project partner letters of support' (no page limit) including each Indian research organisation with whom you are working. One of these must be a Host Organisation Statement from the VC or equivalent of the lead Indian institution on the application, indicating their commitment to the partnership and how this will be delivered.
- 'Indian Reviewer Nomination' form: available on the EPSRC website call page, submitted as Type: 'Other Attachment'.
- DST 'Undertaking' form: available on the EPSRC website call page, submitted as Type: 'Other Attachment.'

If your proposal exceeds the page limit or does not conform to this format, your proposal will not be considered.

EPSRC and DST reserve the right to reject a proposal without recourse to peer review if it is deemed that the research proposed is outside of the scope of this call.

We require the use of minimum 11pt font of a sans-serif font style such as Arial or Helvetica on A4 pages with 2cm margins on all pages.

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.

In addition, where non-standard fonts are present, and even though the converted PDF document may look unaffected in the Je-S System, when it is imported into the Research Councils Grants System some information may be removed. We therefore recommend that where a document contains any non-standard fonts (scientific notation, diagrams etc), the document is converted to PDF prior to attaching it to the proposal.

For advice on writing proposals see:

<https://www.epsrc.ac.uk/funding/howtoapply/preparing/>

Ethical 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. Other relevant guidance includes EPSRC's policy on animal use in research: <https://www.epsrc.ac.uk/about/standards/animalresearchpolicy/> and the EPSRC Responsible Innovation Framework: <https://www.epsrc.ac.uk/research/framework/>. Please refer also to the ESRC Research ethics framework: <http://www.esrc.ac.uk/funding/guidance-for-applicants/research-ethics/>.

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

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 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.

Assessment

Assessment process

UK Process

Proposals will be sent to at least three peer reviewers selected by EPSRC. Applicants may nominate three reviewers and EPSRC guarantees to contact at least one of these. Applicants whose proposals attract sufficiently supportive reviews will have the opportunity to respond to reviewers' comments in writing prior to the joint prioritisation panel.

India Process

Proposals will be sent to at least three peer reviewers selected by DST. Applicants may nominate three reviewers and DST guarantees to contact at least one of these, subject to any conflicts of interest. Applicants will have the opportunity to respond to reviewers' comments in writing prior to the panel. In addition, Indian applicants may also be called for interview/presentation before an Indian expert panel to gather more information and clarity on the proposals.

The Indian expert panel may review and moderate peer review reports and seek additional information/clarity based on information provided during the presentation.

Joint Panel

A joint UK/India prioritisation panel will rank the proposals based on the reviewers' comments against the assessment criteria and the PI responses received, and make final recommendations for funding to DST and EPSRC.

Assessment criteria

- 1) Quality of proposal
- 2) Importance
- 3) Pathways to Impact
- 4) Appropriateness of applicants
- 5) Resources and management
- 6) Fit to call, including the added value of the proposed UK-India partnership.

Projects should aim to be true joint partnerships between the UK and India. This is an important feature of the call; where the project is judged to be one-sided this will be seen as a weakness of the proposal. Projects should be formulated to demonstrate the **added value** of active collaboration with India, and not be potentially stand-alone: both sides of the project must be fundable in order for either side to receive funding.

Feedback

As applicants will have seen reviews and had the opportunity to respond to them, no additional feedback will be provided following the panel. Information on the panel outcome can be found on EPSRC's 'Grants on the Web' web page.

Moving forward

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

Guidance

Guidance for reviewers

All reviewers are asked to assess the UK-India project in its entirety and not just the research to be undertaken by the UK or Indian investigators. Reviewers are requested to comment on the fit to the call scope as defined above, and the added value of the UK-India partnership proposed in the application.

Please also comment on any ethical and/or research governance issues (where applicable), including: (1) whether proposed research is ethically acceptable; (2) any ethical issues that need separate consideration; (3) appropriateness of ethical review and research governance arrangements; (4) any potential adverse

consequences for humans, animals or the environment and whether these risks have been addressed satisfactorily in the proposal.

Additional grant conditions

In addition to the standard terms and conditions for grants, the following conditions apply to Newton funding:

GAC NF 1: ODA compliance

The Newton Fund is part of the UK's Official Development Assistance (ODA). Its aim is to develop science and innovation partnerships that promote the economic development and welfare of developing countries. The investigators must ensure the research that is undertaken as part of this grant is compliant with ODA rules and regulations as set out under the Newton Fund programme. In the event that the research is not compliant with ODA rules and regulations EPSRC reserve the right to terminate the award.

GAC NF 2: Acknowledgements and reporting

In addition to the provisions in RGC22, the investigators must acknowledge the Newton Fund and the EPSRC in any publications, web pages or events associated with this grant.

Investigators must assist EPSRC/RCUK with any additional reporting requirements requested by the Department for Business, Energy and Industrial Strategy.

GAC NF 3: Starting Procedures

This grant has a FIXED start date of 1 September 2017. The start of the grant may NOT be delayed beyond or precede this date.

Please note that due to the fixed start date, the normal three month start period rules outlined in RCUK Terms and Conditions RGC4 do not apply to this project.

GAC NF 4: Ethical requirements

Research must meet the RCUK Research Governance guidelines outlined in RGC2. For clinical studies involving human participants and/or patients, appropriate consent must be obtained. Additionally, any research undertaken outside the UK must have both UK and respective country ethical approvals.

When collaborating with other laboratories, or where animal facilities are provided by third parties, researchers and the local ethics committee in the UK should satisfy themselves that welfare standards consistent with the principles of UK legislation (e.g. the ASPA) and set out in this guidance are applied and maintained.

For grants that include the use of animals, the guidance <https://www.epsrc.ac.uk/about/standards/animalresearchpolicy/> must be adhered to, and in particular: 'If applicants are proposing to undertake any animal experiments as part of collaborative programmes outside the UK, these experiments must be conducted in a way that conforms to the legal, ethical and normal practices in that country, as well as conforming to the standards (including animal welfare) required in the UK.'

The Principal Investigator/Research Organisation must be prepared to furnish EPSRC with a copy of the ethical approval, and any correspondence with the committees, if requested by the Council. The principal investigator must notify EPSRC if a regulator or a research ethics committee requires amendments that substantially affect the research question, methodology or costs to the extent that the project is no longer the same as that approved for funding by EPSRC.

GAC NF 5: Government support

This award is dependent on continuing Government commitment for this initiative. In the event that this support is withdrawn, EPSRC reserves the right to terminate the award.

GAC NF 6: Requests for extensions to awards

Due to financial restraints of the Newton Fund Programme, grant extensions will only be considered under exceptional circumstances (in line with the Equality Act 2010) and will require EPSRC agreement on a case-by-case basis. The Research Organisation remains responsible for compliance with the terms of the Equality Act 2010 including any subsequent amendments introduced while work is in progress; and for ensuring that the expectations set out in the RCUK statement of expectations for equality and diversity are met.

GAC NF 7: Subcontracts

It is important to highlight that the Research Organisation awarded the grant is responsible for the conduct and administration of the grant during the whole life time of the award (pre-award, during the grant and on completion). It is accountable for the effective use of public funds, and must therefore ensure that all grant monies are subject to proper financial management processes. It is the Research Organisation's responsibility to ensure that expenditure on sub-contracts in the UK and abroad is subject to robust controls to ensure value for money and propriety and that all costs should be fully vouched and maintained for possible inspection and checks by, or on behalf of, the funding organisation.

This award has therefore been made on the basis that if any funds are transferred to another UK or overseas organisation then the Research Organisation must undertake due diligence checks to ensure that the funding will be appropriately used (as set out above). The Research Organisation may be asked to provide evidence that where funds have been transferred they have undertaken appropriate due diligence to ensure that any risks are recognised, understood and treated as necessary. The Research Organisation may be asked to provide additional information on how the due diligence checks were carried out.

Please refer to EPSRC for any specific guidance.

DST Terms and Conditions

The standard terms and conditions for DST grants are available on DST website. DST reserves the right to include any additional terms and conditions specific to the grant at the stage of technical evaluation or financial due diligence of the proposals.

Key dates

Activity	Date
Deadline for Full Proposals	15 March 2017
Prioritisation Panel	Late June/early July 2017
Funding decision	July 2017
Grant start date	01 September 2017

Contacts

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Change log

Name	Date	Version	Change
Gavin Salisbury/Daniel Emmerson	19/1/17	1.0	

Appendix

Je-S attachments checklist

Attachment Type	Maximum Page length	Mandatory/Optional	Extra Guidance
Case for Support	8 pages	M(andatory)	Comprising up to two A4 sides for track record, and six A4 sides describing proposed research and its context.
Pathways to Impact	2 pages	M	
Workplan	1 page	M	
Justification for Resources	2 pages	M	
Data Management Plan	2 pages	M	
Non-UK components	1 page	M	ODA statement. See main text.
CVs	2 pages each	As required	For named and visiting researchers, and researcher co-investigators only. CVs for Investigators are not required and will not be accepted.

Project Partner Letters of Support	No page limits	Mandatory; number as required	Must be included from all named project partners, including in this instance the Indian partner research organisations. 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 may be submitted.
Equipment Quotes		Optional	Not required for the UK applicants as no equipment is permitted. Indian applicants should refer to DST before inclusion.
Technical assessment	No page limit	As required	
Facility form		Not required	
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.
Additional document		Not required	
Other attachment	No page limit	Mandatory	Indian reviewer nominations should be

			included in an attachment in this heading. DST also require an 'Undertaking' form from Institution Head, Collaborators, PI and Co-Is to be submitted as an Other Attachment. Both forms are available on the call page of the EPSRC website. 'Other attachments' are not seen by reviewers or panel members.
List of publications		Not required and will not be accepted	
Head of Department statement		Not required and will not be accepted	

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.