ENA NIC Call for Ideas 2020/2021
*Required

1. Email address *

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The Voice of the Networks

ena
energy**networks**
association

Introduction

Innovation is a key element of the existing RIIO (Revenue = Incentives + Innovation + Outputs) price control mechanism. Funding for innovation is made available by the regulator, Ofgem, to Energy Networks for Network specific projects. One of the principal processes to encourage innovation in the energy industry is through an annual competition for funding known as the Network Innovation Competition (NIC). More information about how the NIC funding mechanism fits into the wider energy innovation landscape can be found through the Energy Innovation Centre (EIC) and Energy System Catapults 'A guide to Funding'.

The Distribution Network Operators (DNOs) in Great Britain (GB) have committed to working closely together and with third parties to ensure the benefits of new technologies and processes are realised by Electricity Network customers. Our goal is to develop high-quality innovation projects that deliver value for money for Electricity Network customers, and we want to work with other innovators in the energy industry to help us achieve this. As such, we are pleased to launch our latest Network Innovation Competition Call for Ideas for DNO projects, and invite you to put forward your innovative project proposals. We want to hear about new, innovative and net zero solutions from industry to the priority areas that we have identified in our Innovation Strategy and this Call, so we can work with you to take them forward and trial them on the networks. We would very much welcome ideas from any 3rd party who has an idea for an innovative project suitable for the Electricity Networks. We may also review whether your idea could be paired or aligned with other submissions, and we may bring together various proposed projects and capabilities to help develop a joined up project where we see an opportunity to do so.

Specifically, we would like to understand what innovative techniques and technologies we could develop and demonstrate that would address Customer Vulnerability and enable an accelerated pathway to Net Zero and the Energy System Transition?

In considering the questions, you might want to consider the following:

•   What technology has been tested in a small scale or laboratory setting and is now ready for piloting?
•   How can we bring our hard-to-reach customers with us on the journey?
•   What are the current barriers to Net Zero that this solution answers?
•   What existing practices could we improve upon?

While it may not be the scope of the project, we would ask that you consider how the proposal would be fully adopted into Distribution Network Operator's business as usual practices to realise the rollout potential.

The Opportunity

The NIC is an annual opportunity for Electricity Network companies to compete for funding for the development and demonstration of new technologies and new operating and commercial arrangements. Ofgem award funding to the best innovation projects that help the Networks facilitate the energy system transition, support vulnerable customers and optimise costs for customers. Up to £70 million is available through the Electricity NIC. The competition is typically suited to large-scale long-duration flagship projects i.e. over £2M budget running for two or more years.

We strongly value your innovative ideas and have committed to running this Call for Ideas and working with stakeholders to develop projects which will benefit network customers. After successful projects from the ENA Call for Ideas have been identified, the DNOs have committed to working with selected proposals to develop and shape the projects, to ensure that they comply with the Ofgem eligibility criteria and maximise the chances of a successful bid.

Requirements

Prior submitting an idea, you should ensure it complies with the Electricity NIC Governance Document and ensure it meets the following:

- Addresses relevant industry challenges within required time frames
- Stimulates a low carbon energy sector and/or delivers environmental benefits
- Demonstrates a robust methodology
- Provides value for money for customers
- Generates new knowledge that can be shared
- Is innovative (i.e. not business as usual or delivered elsewhere)
- Has broad industry involvement and/or funding
- Has direct impact on Network Licensee's network or on the operations of the GB System Operator
- Addresses the Themes specified in the Electricity Innovation Strategy
- Provides benefits to networks customers

We strongly encourage you to read the Electricity NIC Governance Document and to pay particular attention to the NIC eligibility requirements, as well as to read the March 2020 Electricity Network Innovation Strategy, as this will help to put forward your project ideas.

Additionally, you are advised to carry out a review of existing and completed innovation projects (including but not limited to those on the Smarter Networks Portal – also see Useful Links) to ensure the proposed project is genuinely innovative and builds on any previous learning, and to ensure the propose idea is unique. You should review previous NIC funding decisions by Ofgem, to understand why projects have been taken forward or why they were rejected by Ofgem, briefly summarised Oin Attachment 1 of this document . Please note that even excellent project proposals, if they are too similar to work already done / in progress, will not be chosen to proceed.

In your submission clearly outline the issue / problem you intend to solve and what capabilities you bring to solving it. It is important to provide enough detail for us to understand the proposal. A clear description of the projects intended outputs and success criteria would will help our assessment, increasing your chances of success. This year, after the initial short-listing of projects, before the final interview pitches, DNOs will offer the opportunity for a one-on-one feedback session to assist you in the quality and content of your proposal ahead of your interview.

In line with the NIC governance, and to reflect the project bid processes within the wider industry, there is no mechanism to reclaim any costs associated with the preparation of a bid. Therefore, if your idea is selected to proceed through to the Ofgem NIC submission process, you will be required to fund your own bid costs.

As part of the requirement to demonstrate value for money for customer, as a named partner, you may have to contribute a portion of your project delivery costs as cash or benefit in kind. Typically this should be in excess of 10% of your portion of the project costs, but should be proportionate to your involvement in the project and any benefits that your organisation may gain from its participation.

Please note that in previous years Ofgem has stated that the NIC funding should not be used to pay for electricity storage assets, electricity/gas generation or EV charge points. As such, projects involving significant expense in these areas should indicate where this element of their funding is coming from. Projects which are looking to leverage NIC funds, along with other funding sources to create larger projects are welcomed. The NIC Call for Ideas should not be used for spurious applications or as a marketing tool for pushing a particular brand of equipment. Ofgem have made it clear that the majority of benefits of NIC projects need to flow back to GB Network customers, and hence you should ensure you are clear where benefits of your project are delivered, and that most of these can be attributed to GB Network customers. You should use a combination of qualitative and quantitative analysis to describe this.

While this call is directly focused on project ideas for the NIC, third parties looking to work with the networks on smaller innovation projects can submit these proposals at any time on ENA's Network Innovation Collaboration Portal.

Timelines

Ideas should be submitted using the Google Form by 17:00 on Friday the 30 October 2020.

Call Opens: 17 September 2020
Information Webinar: 14:00, 8 October 2020
Call Closed: 17:00 30 October 2020

Proposals shortlisted: 24 November 2020
One-on-One sessions with Networks: w/c 23 November 2020
Pitch to Networks: 1- 3 December 2020
Decision announced: 18 December 2020

Get In Touch

We are excited to receive your innovative idea proposal(s). To submit an idea, you are required to use this dedicated Google Form.

Once again, please be reminded to visit the Smarter Networks Portal, and to read the Electricity NIC Governance and Electricity Network Innovation Strategy prior to submitting your new ideas.

For more information about this call, please visit: https://www.nicollaborationportal.org/

We encourage you to submit any questions, comments, or concerns to: nic@energynetworks.org. We will attempt to answer all questions at the webinar session on 8th October; please ensure that you submit your questions before then. You are also welcome to approach the DNOs directly with any questions, particularly if you have a location-specific project in a certain DNO area.

As a reminder, this year, after the initial short-listing of projects and before the final interview pitches, DNOs will offer the opportunity for a one-on-one feedback session to assist you in the quality and content of your proposal ahead of your interview. Successful bidders will be contacted to arrange this session separately.

Please note that the information used and shared on this NIC Call for Ideas 2020 will only be used solely for this purpose, and shall not be shared beyond the IMG or their respective companies. We would expect to see all relevant information described in this document and the Google Form to be included in your submission, and that NDAs will not be required at this stage.

Useful Links

1. The EIC and Energy System Catapult: A guide to Funding
http://bit.ly/ESC-EIC-A-guide-to-funding

2. Electricity NIC Governance Document
http://bit.ly/ElectricityNICGovernance

3. Smarter Networks Portal
https://www.smarternetworks.org/

4. Network Innovation Collaboration Portal
http://www.nicollaborationportal.org/

5. Electricity Network Innovation Strategy
http://bit.ly/ENA-ElectricityNetworkInnovationStrategy

6. ENA NIC Call for Ideas 2019 Google Form
http://bit.ly/ENA-NIC-Call-for-Ideas-2019

7. Successful NIC Call for Ideas 2019
https://www.ofgem.gov.uk/network-regulation-riio-model/current-network-price-controls-riio-1/network-innovation/electricity-network-innovation-competition

8. Ofgem 2019 NIC Decision Document
https://www.ofgem.gov.uk/system/files/docs/2020/05/2019_nic_decision_document_for_publication_corrected_05.20.pdf

9. All previous years decisions can be found at the following page and subsequent individual network sub-pages
https://www.ofgem.gov.uk/network-regulation-riio-model/current-network-price-controls-riio-1/network-innovation/electricity-network-innovation-competition

10. Industrial Strategy Challenge Fund
https://www.ukri.org/innovation/industrial-strategy-challenge-fund/

11. Innovate UK funded projects
https://www.gov.uk/government/publications/innovate-uk-funded-projects

12. BEIS Science and Innovation in Climate and Energy (SICE) funded projects
https://www.gov.uk/topic/housing/funding-programmes

13. UKRN Pioneer Fund
https://www.gov.uk/government/news/projects-lay-the-groundwork-for-a-future-of-robolawyers-and-flying-cars

Attachment 1: Projects not awarded funding – Ofgem Decision Summary

Over the years, some projects are not awarded funding as they did not meet the evaluation criteria set out in the NIC Governance document. Below are a brief summary of Ofgem feedback for unsuccessful projects:

- Concerns around the robustness of project methodology and implementation plans
- Unable to provide a sufficiently robust needs case to support proposal
- Risk presented by broad project scope
- Poor performance in leveraging experience on previous projects of similar issues
- Uncertainties in practical use cases – how the solutions will be used in post project deployment
- No evidence provided to justify benefits to GB network customers
- Majority benefits accrue to parties other than to customers via networks, without sufficient contribution from those parties being included
- High project cost and unlikely to produce limited enduring benefits
- Did not represent sufficient innovation or value for money
- Project trials appeared underdeveloped

Below are the links to Network Innovation Competition Funding Decisions

Projects not awarded funding

Decision on the 2019 Gas and Electricity Network Innovation Competitions

Decisions on the 2018 Gas and Electricity Network Innovation Competitions

Network Innovation Competition 2017 Funding Decisions

Skip to question 2

Contact Details

2. Contact Name *

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3. Organisation *

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4. Phone Number *

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Focus Areas

The latest Electricity Innovation Strategy document was published on 31 March 2020. The strategy has been designed to identify the most important challenges and opportunities facing Great Britain's energy networks in supporting the delivery of the UK's Net Zero carbon emissions targets, and delivering essential services to customers across the country. The strategy document also outlines the Networks' strategic objectives for innovation and divides the challenges the Networks face into 5 shared network innovation themes and 5 key principles which underpin our innovation activity. This can be seen in the diagram below:

The below outlines the 5 key themes and the top 5 focus areas for each theme.

Theme 1 - Consumer Vulnerability
The top 5 focus areas are:
1. Understand and remove barriers to adopting new technologies and services for vulnerable consumers
2. Facilitate building resilient local communities
3. Support the fuel poor and improve affordability for consumer
4. Explore how to reduce the financial impact of net zero on vulnerable consumers
5. Improve engagement and visibility between vulnerable consumer and the networks

Theme 2 - Net zero and the energy system transition
The top 5 focus areas are:
1. Facilitate the adoption of flexibility and smart systems
2. Facilitate and enable the electrification of heat and transport
3. Facilitate the efficient connection of low and zero carbon electricity generation
4. Understand the operational impact of long duration reserve services on the network
5. Contribute to a UK-wide methodology for calculating the cost of carbon

Theme 3 - Optimised assets and practices
The top 5 focus areas are:
1. Improve the visibility of customers and their behaviour
2. Enable digitalisation for network and system optimisation
3. Reduce and mitigate unplanned outages, supply interruptions and wider disruptions
4. Minimise the impact of networks on the environment
5. Ensure future skill requirements and workforce resilience

Theme 4 - Flexibility and commercial evolution
The top 5 focus areas are:
1. Enable domestic flexibility, local energy markets, EVs and smart charging
2. Trial and implement innovative arrangements to support network management and flexibility
3. Maximise the opportunities of smart meters, data and network charging reforms
4. Identify regulatory barriers and make recommendations for reform
5. Develop flexible connection arrangements and mechanism to inform how customers generate and use electricity

Theme 5 - Whole System
The top 5 focus areas are:
1. Collaborate on enabling the growth and operation of emerging low carbon solutions
2. Develop whole system coordinated cost benefit analysis
3. Join up approaches to regional network planning and forecasting
4. Improve access to and visibility of energy network data
5. Coordinate the operation of a whole energy system

The Electricity Networks are primarily interested in ideas which address the 5 key innovation themes identified in the Electricity Innovation Strategies and wish to work with innovators on these areas. We do also welcome ideas on areas that the Electricity Networks have not considered in these strategies, however they will need to demonstrate explicit benefits to Network customers. Therefore, we strongly encourage you to read and familiarise yourself with the Electricity Network Innovation Strategy.

5. What is the primary innovation theme of your project? *

    Mark only one oval.

    ◯ Consumer vulnerability

    ◯ Net zero and the energy transition system

    ◯ Optimised assets and practices

    ◯ Flexibility and commercial evolution

    ◯ Whole System

6. Please describe how your project proposals helps electricity networks address challenges/exploit opportunities within the theme selected. Please refer to the specific focus areas in the summary document.[200 words max] *

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7. Please could you indicate your willingness to collaborate with other projects going forward, if requested? Ofgem have previously directed Networks to combine some projects at ISP stage which have a similar scope. *

    Mark only one oval.

    ◯ Yes

    ◯ No

8. If your answer for the above question is no, please state why? *

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9. Please could you indicate your willingness to contribute some funding towards the costs associated to the project? *

    Mark only one oval.

    ◯ Yes

    ◯ No

    ◯ Unsure / Maybe

Location

10. 10. What are the criteria of any required trial site? Do you have any specific location(s) in mind? [100 words max] *

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NIC Governance Compliance

https://www.ofgem.gov.uk/system/files/docs/2017/07/electricity_network_innovation_competition_governance_document_version_3.0.pdf

11.   Please confirm that you have read and fully understood the relevant NIC Governance Document(s)? *

Tick all that apply.

☐ Tick to confirm

12.   An NIC Project must have the potential to have a Direct Impact on a Network Licensee's network or on the operations of the GB System Operator and involve the development or demonstration of at least one of the following elements. Please select the one (s) that relate to your project idea: *

Tick all that apply.

☐ A specific piece of new (i.e. unproven in GB) equipment (including control and/or communications systems and/or software)

☐ A specific novel arrangement or application of existing gas and/or electricity transmission and/or distribution equipment (including control and communications systems software)

☐ A specific novel operational practice directly related to the operation of the gas transportation and/or electricity Transmission System/Distribution System

☐ A specific novel commercial arrangement.

13.   Please describe how your project meets the eligibility requirement selected above. Please note that proposals which do not comply with the NIC Governance will be dismissed. [200 words max] *

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14.   Please confirm whether this project conforms to the default Intellectual Property arrangements set out in the NIC Governance Document. *

Mark only one oval.

◯ Yes

◯ No

◯ Don't know

15.   If your answer to the above is no or don't know, please state why. [100 words max] *

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16.   Please confirm that you have reviewed existing and completed innovation projects to ensure that the scope of your project proposal is unique? All NIA and NIC projects can be found here: http://www.smarternetworks.org/ *

Tick all that apply.

☐ Tick to confirm

17. Please list any existing projects which are similar to this proposal, and describe how the project is distinct from these?[300 words max] *

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Project Proposal

18. Proposal Title *

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19. Executive summary of your proposal: Assume a non-technical audience and include the problem/opportunity addressed and the solution proposed. This is not scored. [150 words max] *

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20. Indicative cost of your project proposal (£ Millions, please note projects below £2m are not considered suitable for NIC) *

Mark only one oval.

( ) < £2m

( ) £2M - £5M

( ) £5M - £10M

( ) £10M - £15M

( ) > £15M

21. Estimated Duration (years, please note, projects of durations below 2 years are not generally considered suitable for NIC) *

Mark only one oval.

( ) < 1 year

( ) 1-2 years

( ) 2-3 years

( ) 3-4 years

( ) > 4 years

Please provide a problem statement that your project is looking to address. Please also provide three key questions your project proposal looks to answer:

22. Problem statement [100 words max] *

23. Question 1 of 3 [25 words max] *

24. Question 2 of 3 [25 words max] *

25. Questions 3 of 3 [25 words max] *

26. Describe the project outputs and deliverables. [300 words max] *

27. Describe how the project is innovative and has an unproven business case, where the innovation risk is sufficiently high that it warrants a limited Demonstration Project to demonstrate its effectiveness. Please justify the Technology Readiness Level (TRL) at the start of the project, and what you expect it to be at the end of the project.[200 words max] *

28. Detail the proposed methodology and project stages to design, build and test the solution.. [400 words max] *

29. Describe how the project delivers value for money for Electricity customers; both Network customers and the wider system. This section should include a cost-benefit analysis indicating the quantitative benefits that the project will deliver as well as what it could deliver if it was rolled out across GB. [400 words max] *

30. Describe how the project accelerates the Networks' contribution towards net zero and any other wider societal benefits e.g. clean air, improved customer experience. Please quantify the carbon reduction and other benefits. [300 words max] *

31. Describe how the project creates knowledge that can be shared across energy networks in Great Britain (GB) or creates opportunities for roll-out across a significant proportion of GB networks. [150 words] *

32. Describe how the project would be delivered from a resource perspective, including roles and responsibilities of any project partners, other sources of funding and external resources. This section should explicitly state your contribution to the project, both financially and from a resource perspective. [300 word max] *

33. Any other comments or relevant information? [200 words max] *

Terms and Conditions

Please review the following Terms and Conditions and indicate that you have read and understood them

34. I understand that ENA will share this proposal with all GB Electricity Networks, for the purposes of assessment and review; however, these proposals will not be shared with any other third party without seeking explicit written permission. *

Tick all that apply.

☐ Tick to confirm

35. I understand that I am not guaranteed to receive any funding for the proposed project by participating in the Call for Ideas. *

Tick all that apply.

☐ Tick to confirm

36. I understand that if this proposal is successful, I will be expected to work with the Network(s) to develop the Initial Screening Proforma (ISP) submission to Ofgem. *

Tick all that apply.

☐ Tick to confirm

37. I understand that all costs associated with the ENA NIC Call for Ideas and submission of the NIC bid to Ofgem will be borne by the individual parties responsible for generating those costs while preparing the bids. *

Tick all that apply.

☐ Tick to confirm