ENA Network Innovation Competition (NIC) Call for Ideas 2020/2021

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[1] 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

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[1] Please note that this funding is dedicated to networks, and is not suitable for purely generation and retail/supplier focussed projects

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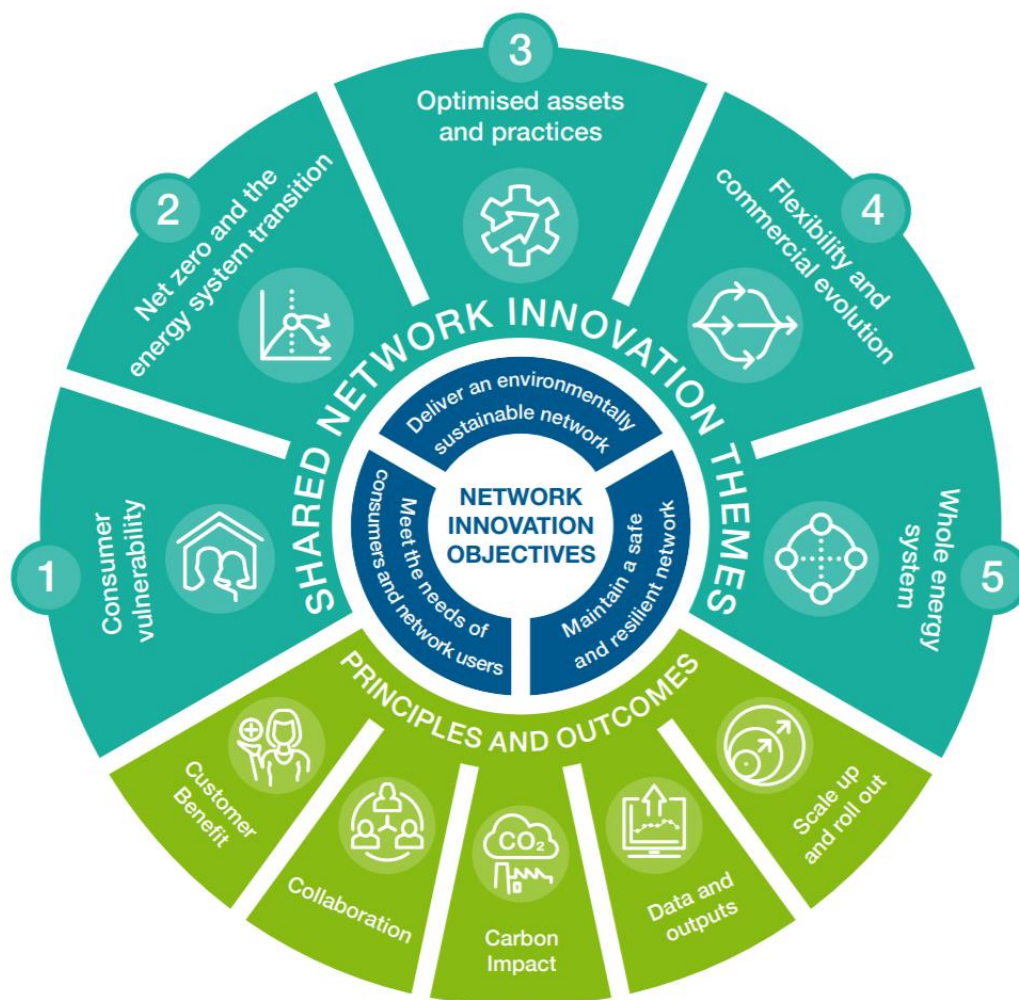
As part of the requirement to demonstrate value for money for customer, as a named partner, you may have to contribute a portion of your project delivery costs as cash or benefit in kind. Typically this should be in excess of 10% of your portion of the project costs, but should be proportionate to your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

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

Themes	Focus Areas
Consumer Vulnerability	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
Net zero and the energy system transition	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
Optimised assets and practices	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
Flexibility and commercial evolution	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
Whole System	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.

Scoring Criteria

Responses will be assessed on the high-level criteria indicated in the table below. Responses that are deemed non-compliant with the NIC governance will be rejected irrespective of the scoring. Projects below £2m (expected total cost including that of the DNO) or less than two years duration will be reviewed to see whether they can be amalgamated into other projects. They will otherwise be rejected and requested to be submitted via the Network Innovation Collaboration portal for funding from another route. Previous experience suggests that due to the cost and effort involved in the bid projects below this level are not worth pursuing through the NIC. .

Criteria	Weighting
Technical Fit	40%
Focus Area	10%
Problem Identification	10%
Outputs and deliverables	10%
Innovation Description	10%
Delivery & Benefits	50%
Methodology and Stages	15%
Value for money (CBA)	20%
Net Zero and Societal Benefit	10%
Knowledge Sharing	5%
Financial	10%
Funding & Resources	10%

Answers will be scored using the table below and applied to the weighted questions.

Score	Comment
4	Excellent: Exceeds expectations
3	Good: Fully meets expectations
2	Satisfactory: Meets minimum requirements
1	Poor: Falls below minimum requirements
0	Did not appropriately answer the question

Timeline

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

ENA NIC Call for Ideas 2020 Timeline

14 Sept Call for Ideas Open	8 October Information Webinar	30 October Call for Ideas Closed	24 November Proposal Shortlisted	1 – 3 December Pitch to Networks	18 December Decision Announced

Indicative Ofgem NIC 2021 Timeline (subject to change from Ofgem)

Jan - Mac Develop NIC Proposal	April ISP due to Ofgem	May Ofgem shortlist	July / Aug FSP due to Ofgem	Aug - Oct Q&A and presentation	Nov Decision announced

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