EIC

Together we innovate

The Ultimate Guide to **Innovating with the UK Energy Networks**

EIC

Together we innovate

Innovation shapes the world we live in.

That's why, over a decade ago, seven of the UK's energy networks saw an opportunity to create the EIC. From the outset the aim was to increase collaboration and accelerate innovation, as the world transitions to net zero.

Today the EIC is a growing not for profit organisation with these same goals, working with industry-leading companies across a broad range of sectors and with a unique global community of innovators.

Together we innovate.

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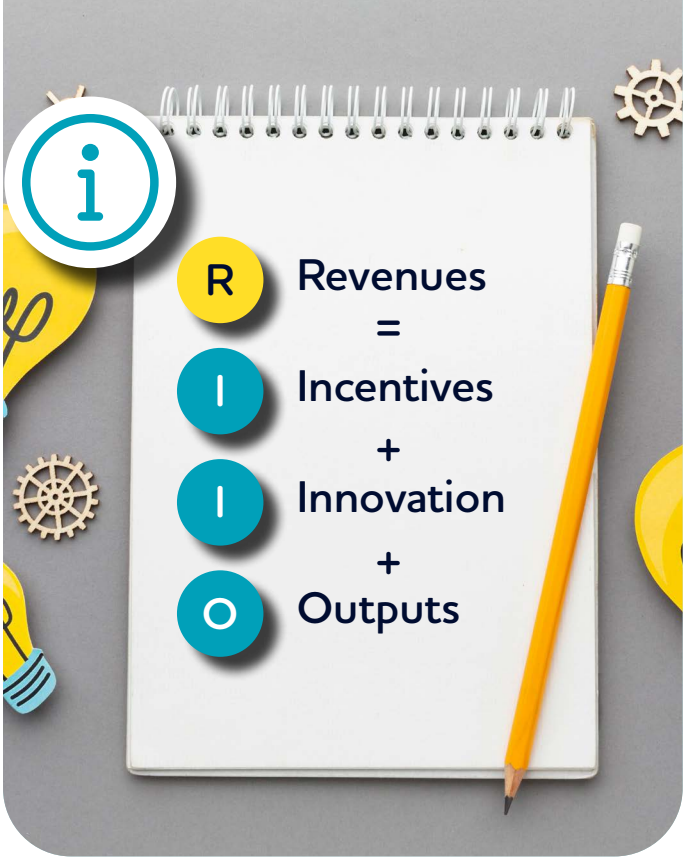
1 Foreword

Climate change is an existential threat that nations, industry sectors and individuals must tackle together.

The UK is currently setting the pace in the race to ignite a so called 'Green Revolution' – the nation's Net Zero targets are testament to the seriousness of its commitment to cutting carbon emissions by 2050.

The UK energy networks play a huge role in our everyday lives by delivering optimal energy at cost-effective rates for customers. The networks are playing a leading role in contributing to Net Zero by continuously reviewing the way in which energy is delivered to customers and looking at new areas, such as heat and transport, to cut carbon emissions. One of the main focus areas for energy networks is investment in innovation to achieve Net Zero emissions as quickly as possible and to deliver a more flexible grid.

Ofgem, the energy market regulator for Great Britain, has a price control approach called RIIO to ensure the energy networks have enough revenue to run an efficient network that delivers what customers need. RIIO stands for Revenues = Incentives + Innovation + Outputs.



One of the sources of investment in innovation, unique to Great Britain, is via the RIIO framework. The most recent price control period, known as RIIO-2, will prepare the energy networks to deliver Net Zero at lowest cost to customers while maintaining world-class levels of system reliability and customer service, and ensuring no consumer is left behind.

The RIIO-2 period started on 1st April 2021 and runs until 31st March 2026 for the electricity transmission and gas distribution networks, with the new price control period for electricity distribution network operators starting 1st April 2023 to 2028.

RIIO-2 will mean in excess of £660m will be available for innovation over the next 5 years.*

This presents a huge opportunity for innovators all over the world to come forward with their proposals and solutions to help support this transition and collaborate with the energy networks.

*Funding is also available to electricity distribution networks as part of RIIO-1

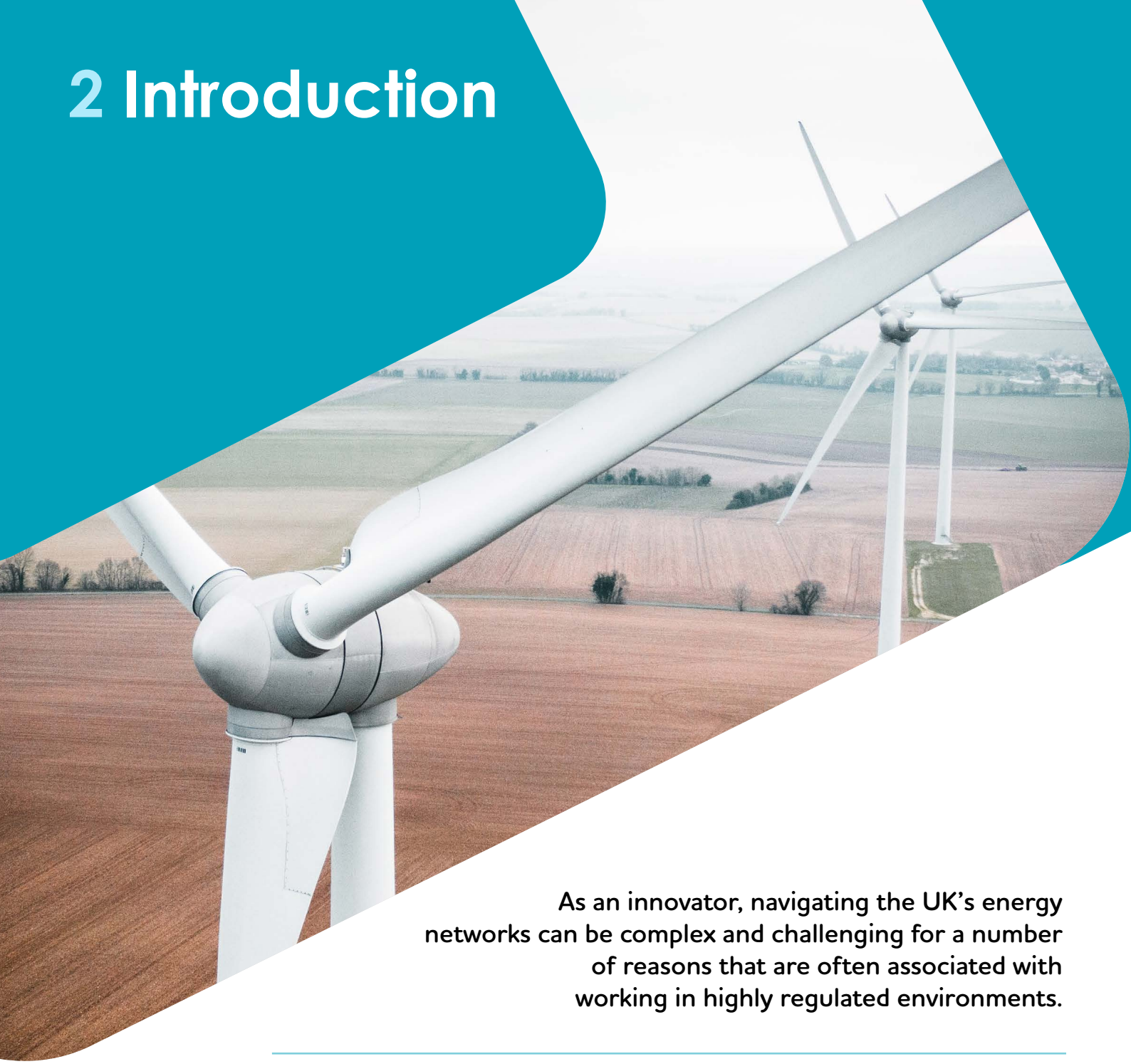
To make innovation happen the networks are looking further afield to create a pathway for innovators who are new to the industry, supported by third party funding.

Given the scale of innovation needed across the energy industry, there is a vital need to join up resources and skills to better support all energy users. This means that cross sector collaboration will be a key component in driving forward change, particularly in areas such as customer vulnerability and whole system approach.

With this in mind, there will be a demand for an extensive range of skillsets, technologies and insights.

The industry is asking for innovators from all backgrounds and specialisms to step forward and contribute to the change that is needed to transform the energy industry and ensure a sustainable and prosperous future.

2 Introduction



As an innovator, navigating the UK's energy networks can be complex and challenging for a number of reasons that are often associated with working in highly regulated environments.

The EIC provides a shared platform which brings energy network partners and innovators together to facilitate the innovation process that takes innovation projects from ideas, to business as usual. Innovators are being called upon by the energy networks to put forward their proposals via the EIC to ensure a strong innovation pipeline with commercially and financially viable solutions.

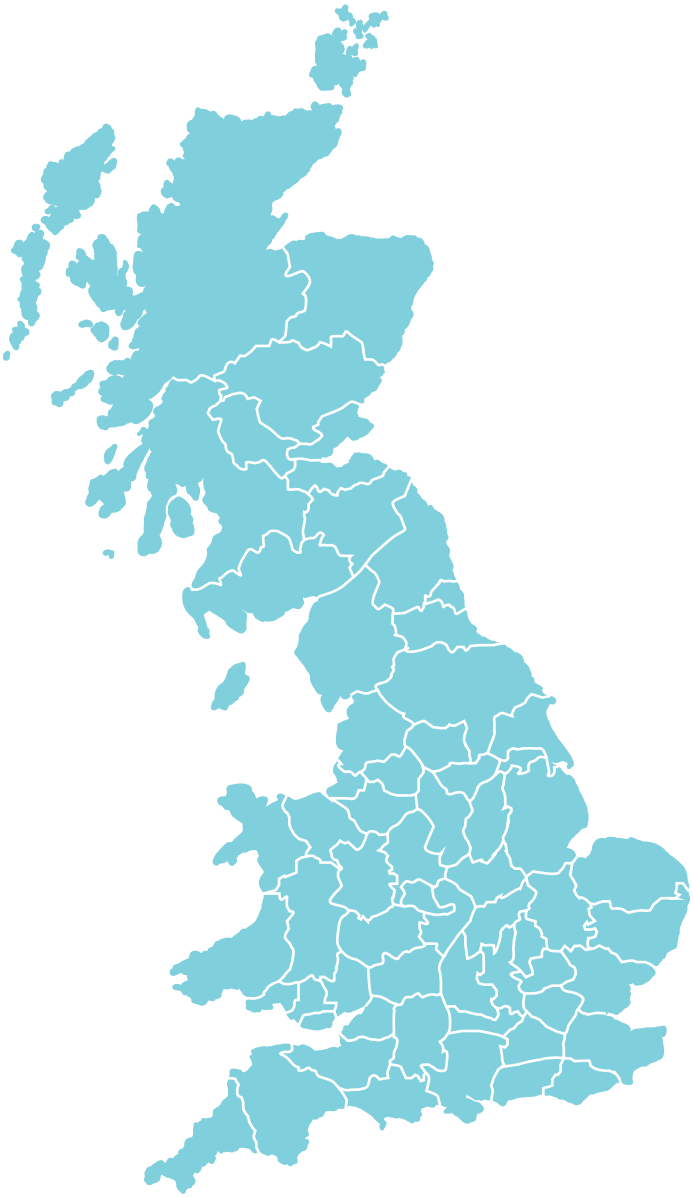
Acting on behalf of and as a voice for the innovators, the EIC can provide signposting to funding, industry insight, project support and support in the commercialisation of successful solutions and products.

This guide, which will be updated regularly, is another step taken by the EIC to support innovators. It aims to ensure that innovators are equipped with the correct and most up to date information to help them navigate and innovate with the UK energy networks.

3 The Energy Networks Ecosystem

There are a number of UK energy networks that innovators can innovate with and most energy innovation projects often involve more than one network, working in collaboration.

50% of projects which run through the EIC are collaborative. This approach is key for creating shared learning and risk, avoiding duplication and increasing the chances of deployment.



The above map shows the licensed network operators for Great Britain.

Electricity Distribution:

Scottish & Southern Electricity Networks
UK Power Networks
NORTHERN POWERGRID
SP ENERGY NETWORKS
WESTERN POWER DISTRIBUTION
electricity north west

Gas Distribution:

Cadent
Northern Gas Networks
WALES&WEST UTILITIES
SGN

Electricity Transmission:

Scottish & Southern Electricity Networks
SP ENERGY NETWORKS
nationalgrid

System Opertion:

nationalgridESO

Gas Transmission:

nationalgrid

Other key industry bodies supporting the innovation process include:

Ofgem's Innovation Link

Ofgem's Innovation Link offers support on energy regulation to innovators looking to trial or launch new products, services, methodologies or business models.

Energy Networks Association (ENA)

The ENA is the industry body for the UK and Ireland's energy networks, funded by gas and electricity transmission distribution licence holders.

Energy Systems Catapult (ESC)

The ESC is an independent, not-for-profit organisation set up to accelerate the transformation of the UK's energy system by identifying and addressing innovation opportunities and market barriers.

Knowledge Transfer Network

The Knowledge Transfer Network (KTN) is a UK-wide organisation grant, a network partner of and funded by Innovate UK. KTN works to build better links between science, creativity and business.

Innovate UK

Innovate UK is part of UK Research and Innovation, a non-departmental public body funded by a grant-in-aid from the UK government.

A wider list is available as an appendices to this guide. To view this,

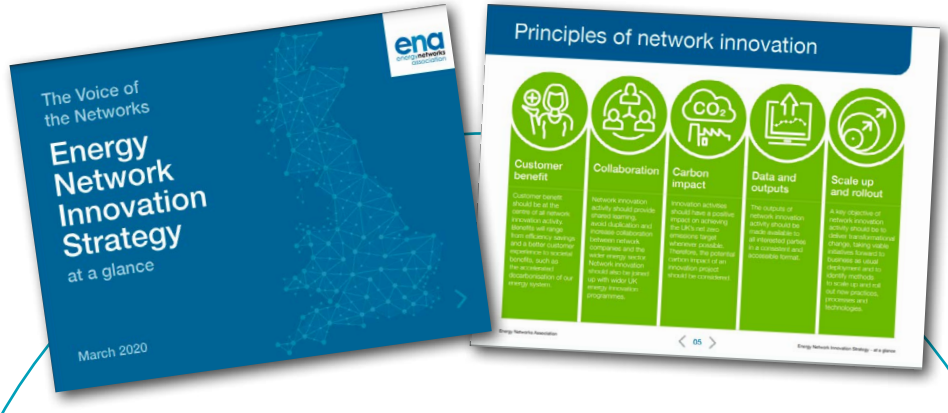
Click here

In order to trial and develop an innovation, innovators often require funding. To see the main innovation funding pathways available within the sector,

Click here

4 Attracting new third party innovators

Whilst innovation deployment is accelerating, there is still more to be done. To provide a better understanding of the challenges and opportunities, the GB energy networks worked collaboratively through their industry body, the Energy Networks Association (ENA), to develop a joint innovation strategy. This was published in March 2020 and can be found **here.**



The networks' joint innovation strategy sets out the **five shared themes** and further detail on priorities within these themes where innovation is needed:

1. **Consumer vulnerability**
2. **Net zero & energy system transition**
3. **Whole energy system**
4. **Flexibility & commercial evolution**
5. **Optimised assets & practices**

As some of the themes span across different industries, multi-sector collaboration is key and encouraged.

The type of innovations that the energy networks are looking for is continuously expanding due to the size and complexity of the Net Zero challenge and their own efficiency challenges. This means that a range of innovator specialisms will be necessary to provide a variety of solutions or products.

In the last 12 months, the EIC has seen a sustained increase of innovator registration. This meant that over 30% of call responses in 2020/2021 were from new innovators. As a result, the EIC has seen an increase in the number of potential projects, particularly in the digital space, to support customers in vulnerable circumstances, process improvement and asset management.

With the evolving needs of customers, there is an ever-increasing need for a collaborative approach to innovation which can provide shared learning, avoid duplication and ensure that the needs of all customers, including the most vulnerable, are met.

To help innovators keep up to date with the latest changes and news from the UK energy networks, the EIC has an **Innovator Support page** where you can see the latest industry information, opportunities and events to engage with the industry.

To view the page, click here.

6 Understanding the Network Innovation Allowance (NIA) Innovation Process in practice

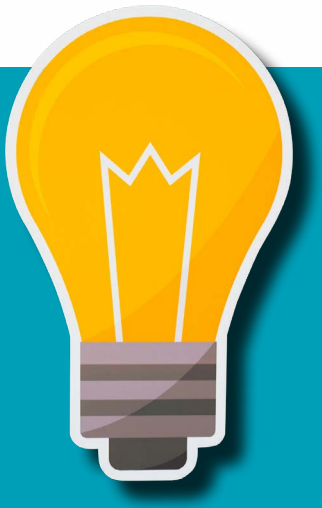
The Network Innovation Allowance (NIA) was introduced by Ofgem as part of the RIIO-1 price controls in 2013. The NIA provides limited funding as a set allowance to the GB energy networks to fund smaller technical, commercial, or operational projects directly related to the licensees' network that have the potential to deliver financial benefits to the licensee and its customers. This is typically the most accessible fund for SMEs where they are supported by one or more energy network.

The diagram on the following pages details the NIA process, as it is the most accessible fund to SMEs due to the lower barriers to entry.

On the right you will see the 5 stages of the NIA innovation process, as defined in the **Energy Networks Association's 'Energy Networks Innovation Process'**,which you will likely take as an innovator.

On the left are the steps you will likely take with the EIC. These steps will support you in your journey through the process. The process outlined is the typical scenario and can change depending on the number of networks collaborating and project value.

Although timescales may seem long for some parts of the process, innovation can require great levels of change within businesses. These steps will ensure that key departments and people are identified early on and brought along on the innovation journey. This will increase success in the development and deployment stages.



SUPPORT AND COLLABORATION THROUGH THE EIC

RESPONSE TO EIC CALL FOR INNOVATION

SUBMISSION REVIEW

EIC engineer and lead network partner will review your submission.

Notification of progression to presentation day provided within 2 weeks of submission deadline.

*

PRESENTATION DAY

Opportunity to present proposal directly to network partners. EIC will provide feedback within 1 week

*

PROACTIVE SUBMISSION OF AN IDEA OR SOLUTION

EIC PROPOSAL REVIEW

1. EIC engineer allocated to support and will be in touch within 5 working days.
2. Decision to present to industry made within 12 working days.
3. Proposal finalised and shared with industry contacts within 20 working days.

*

NETWORK PARTNER REVIEW

Review will be carried out by the relevant contacts and feedback will be provided within 1.5 months.

*

NIA PROJECT PROCESS

(As per the ENA Energy Networks Innovation Process)

STAGE 1: IDEA GENERATION

There are a number of ways for innovators to submit ideas to the energy sector, including:

- The networks' websites
- The Smarter Networks Portal
- Via the EIC Hub

Here are 3 ways that the EIC can help you get your idea to our network partners in the energy sector.

* For successful proposals

SUPPORT AND COLLABORATION THROUGH THE EIC

PROJECT PLAN DEVELOPMENT

EIC team will support collaboration between network partner(s) and successful innovator(s) including development of a detailed project plan and appropriate legal requirements.
This will be completed within 2.5 months

PROJECT PLAN APPROVAL

Internal review carried out by network partner(s) and approval by senior manager responsible for implementing the solution into business as usual (BAU), within 1 month

CONTRACT SIGNATURE

Depending on the project value and complexity, this can take up to 1 month.

NIA PROJECT PROCESS

(As per the ENA Energy Networks Innovation Process)

EXPLORE ALL REGISTERED PROJECTS ON THE ENA SMARTER NETWORKS PORTAL **HERE**

STAGE 2: PROJECT REGISTRATION

The network partner leading the project will register it on the smarter networks portal. This will be peer reviewed by other networks.

SUPPORT AND COLLABORATION THROUGH THE EIC

PROJECT DELIVERY SUPPORT

EIC team will provide support and oversee the project to help ensure it is delivered on time and within budget. This is done through the EIC Hub, an online platform accessible by all parties involved in the project.

PROJECT CLOSEDOWN

EIC team will support the closedown activities and next steps:

- If the solution requires further development, a new project may be initiated;
- If ready for deployment into BAU, the team will support the process.

DEPLOYMENT(*)

Solution will be featured on the EIC Deployment Hub. This ensures that the solution and potential benefits are visible to all EIC partners, encouraging adoption across the industry.

NIA PROJECT PROCESS

(As per the ENA Energy Networks Innovation Process)

STAGE 3: PROJECT DELIVERY

The lead network will report progress on the smarter networks portal.

STAGE 4: CLOSEDOWN

Important step carried out by networks to review project outcomes and benefits and assess next steps, such as BAU roll out, if appropriate.

STAGE 5: IMPLEMENTATION

If a solution is ready to be deployed into BAU, numerous activities may need to happen, including open procurement to comply with Utilities Contract Regulation 2016.

6 Questions often asked about innovating with the UK energy networks

Where can I find key innovator support?

The EIC website has a dedicated **Innovator Support Page** where you can find the most up to date information and support available for innovators.

Additional industry support is also available from other organisations such as Ofgem's Innovation Link. **Click here** to find out more.

What are the best ways to access information and communicate with the energy networks?

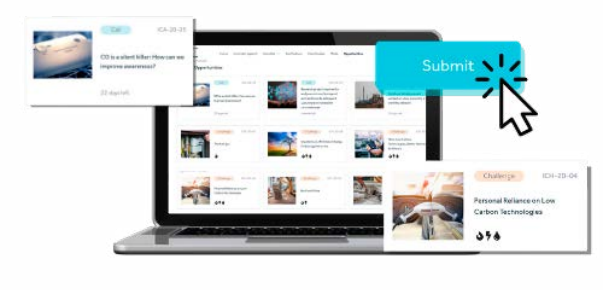
All energy networks have a wealth of information on their websites and details of how to contact them. However, in these large organisations, it can be difficult to pin-point the most relevant information or contact the most relevant subject matter expert for your innovation.

By registering to the EIC Hub, you will benefit from the extensive knowledge and experience of our team to help you navigate through each stage of the process. They will also provide guidance tailored specifically to your innovation. The EIC Hub provides you with access to the innovation opportunities made available by our network partners. You will also have access to our Industry Calendar to help you keep up to date with upcoming industry events.

In addition, the EIC hosts regular 'Meet the Networks' webinars where you will have the opportunity to meet and pose questions to key representatives from our network partners, about relevant industry topics and news. To find out more about our webinar series, **click here.**

I have an idea I want to present to the energy networks, what should I do?

Below are 3 ways that the EIC can help you get your idea to our partners in the energy sector:



1. Submit your idea in response to a Call for Innovation. These are requests for innovation set by our network partners, across the energy sector, that aim to find potential solutions to specific current business issues. Explore current Calls **here.**

2. Submit your idea in response to an Industry Challenge. These are requests for proposals to solve wider, more general industry challenges. Explore Challenges **here.**

3. You can also proactively submit your idea or product that could benefit our network partners, whether it requires development or is market ready, by joining our free Innovation Community **here.**

Kindly note that not all proposals will be successful. However, your submission starts a process which will ensure that your idea is considered by multiple network partners..

What timescales can I expect once an idea has been submitted?

That will depend on how the idea has been submitted.

If an idea is submitted in response to a Call for Innovation, you will typically be notified of progression to a Presentation Day (i.e. your opportunity to deliver a direct pitch to network partners) within 2 weeks of the advertised submission cut-off date.

If you are proactively submitting an idea or product, one of our engineers will typically get in touch within 5 working days.

More information on the process and expected timescales can be found **here.**

What top tips are there for innovators wanting to bring their solutions to the energy industry?

Some general tips are:

Tip 1: Consider the application of your solution from the point of view of the energy network:

What problem will it solve for them? What value or learning will be created?
How will the network achieve this value?

In particular, it is always a good idea to explain the value that the solution will bring for energy customers.

Tip 2: It is good practice to check that your idea has not already been explored by one of the energy networks.

Past and current projects can be found on the individual company websites or the ENA's **Smarter Networks Portal**. It is often difficult to ensure that a thorough check has been made - this is another area where our team are able to provide support.

Tip 3: When putting forward your proposal, it is important to explain your solution using plain English and avoid using jargon.

A proposal will be reviewed by several people with different skill-sets before it is shared with the network partners. If your solution is submitted through the EIC Hub, an engineer will be allocated to support this process.

Tip 4: If your proposal is taken to project plan stage, it is useful to familiarise yourself with the terms and conditions and the legal framework that will be in place to access either NIA funding or any alternate funding that may be required.

The sooner any concerns are raised and discussed, the quicker the process will be completed. When a proposal is submitted through the EIC Hub, a legal counsel will be on hand to support this process. Please note that as this is a regulated industry some of the terms and conditions will be non-negotiable.

You can access specific advice relevant to your innovation by signing up to the EIC Hub and submitting a proposal. Whether your solution is taken forward or not you will be provided with valuable feedback from our team of experienced engineers.

What is in place to protect the IP of a solution?

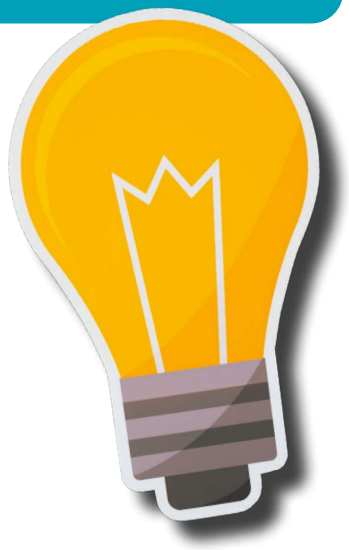
Under an innovation funding initiative in the energy sector, such as Ofgem's NIA funding, it is important to remember that innovation projects are partly funded by energy customers. As a result, terms and conditions surrounding intellectual property (IP) within projects that utilise NIA funding need to comply with the **NIA governance document, published by Ofgem.**

Generally, the background IP - the IP generated before any project funded by NIA has started – will remain with you, the innovator. The ownership of foreground IP, i.e. any IP developed as part of a project will depend on whether it has been created jointly or independently by a project participant.

For further information, **download our guide to Intellectual Property and NIA projects** or see Section 7 of the **Energy Networks Innovation Process (Intellectual Property Guide)**.

Please also be reassured that a non-disclosure agreement can be requested when submitting an idea through the EIC and our legal team is at hand to provide support and discuss the process.

Where can I find out about the UK energy networks' innovation priorities?



The GB energy networks have worked collaboratively through their industry body, the Energy Networks Association (ENA), to develop a joint innovation strategy. This was published in March 2020 and can be found **here**.

Each network in the UK also provides information on their individual websites on current issues, their priorities for innovation and their innovation strategy.

The EIC also works collaboratively with our network partners to advertise their innovation priorities. Our team can help you in targeting your ideas towards **current opportunities.**

What wider funding is available to develop innovation in the sector?

These are the main funding mechanisms in this sector, which can be considered by innovators:

Network Innovation Allowance (NIA)

The NIA was introduced by Ofgem as part of the RIIO-1 price controls in 2013. The NIA provides limited funding as a set allowance to the energy networks to fund smaller technical, commercial, or operational projects directly related to the licensees' network that have the potential to deliver financial benefits to the licensee and its customers. This is typically the most accessible fund for SMEs, where they are supported by one or more energy network.

Network Innovation Competition (NIC)

The Gas and Electricity NIC was introduced by Ofgem as part of the RIIO-1 price controls. The competition is an annual opportunity for energy networks to compete for a limited pot of funding for the development and demonstration of new technologies, operating and commercial arrangements.

Funding is provided for the best innovation projects which help all network operators to understand what they need to do to provide environmental benefits, reduce costs and maintain security of supply as Great Britain moves to a net zero economy.

Strategic Innovation Fund (SIF)

As part of RIIO2 price controls, Ofgem is introducing the SIF to support the national transition to net zero. This fund supports large-scale transformational research and development projects and will be available to gas distribution, gas transmission, electricity transmission and the electricity system operator in the first instance.

Access to this fund will also be made available to electricity distribution in 2023. The exact details of how this fund will be facilitated are still under discussion with Ofgem.

Business as usual

As part of their price control set by Ofgem, the energy networks will have to find more efficient ways to improve their performance in areas such as asset management, environment, and customer service. These are often called business as usual activities. Innovation in these areas will be funded directly by the networks or through other (applicable) sources of funding, such as Innovate UK grants.

The above information is referenced originally in the ENA's 'Energy Networks Innovation Process document.' To access this document, **click here.**

An innovator would need to apply via, or work with, one or more of the UK energy networks to be considered for the majority of the 4 funding options identified above. Innovators who register to the EIC Hub will have access to support and guidance from the experienced EIC team on this topic.

How do I voice a concern or escalate an issue?

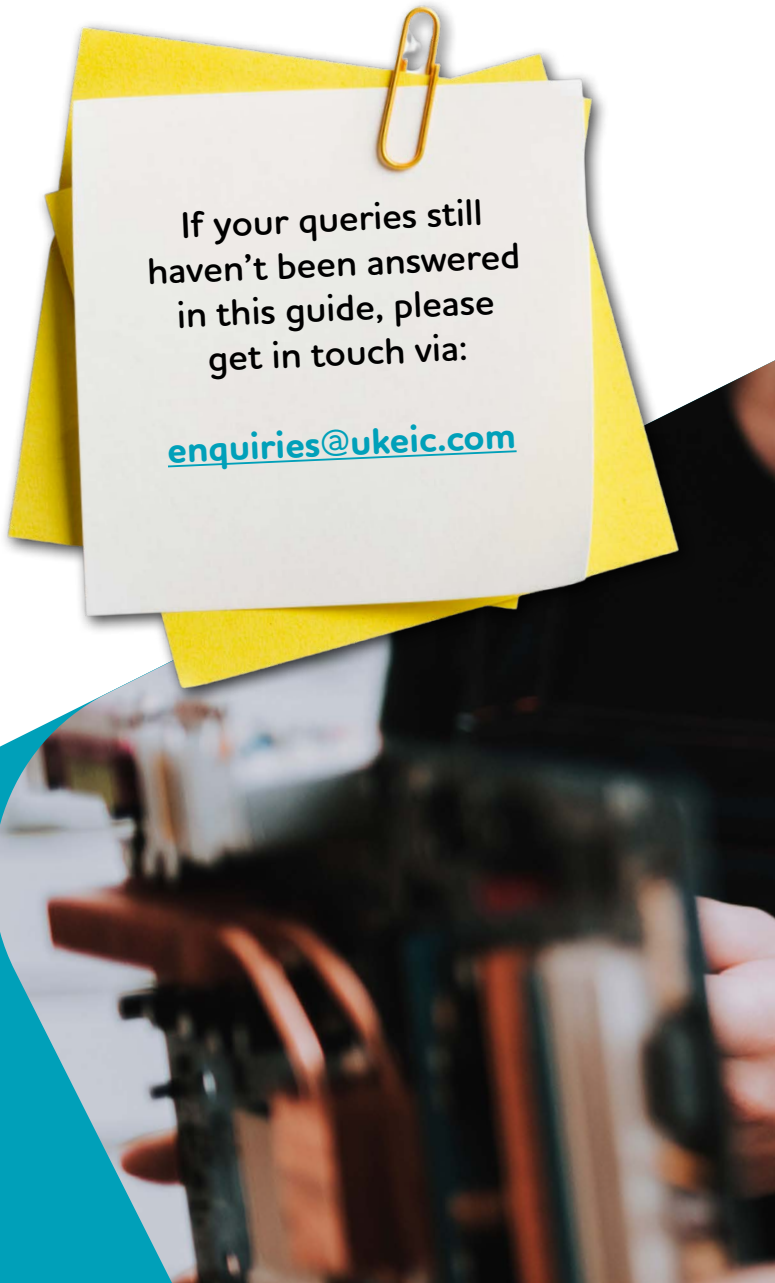
To voice a concern or escalate an issue, **click here.**

Alternatively, please get in touch by emailing us at: **enquiries@ukeic.com**

What support is available if my idea is not progressed?

As part of the EIC proposal review process, you will be provided with feedback detailing why your solution has not been progressed. Whenever possible, our team will also identify any alternative funding you may want to consider.

We regularly upload new opportunities for you to innovate with our network partners. To keep up to date with the latest opportunities, visit **ukeic.com/opportunities** and make sure you sign up to our newsletter.



7 The EIC in action

"The EIC's role is really important to us... third party bodies, like the EIC, can assist by creating and developing specific innovation opportunities... and they are really helpful in giving us feedback and following that discussion through with the networks."

Akshat Kulkarni, CEO and Co-founder of OrxaGrid

"Being part of the EIC's innovation community means being able to connect more directly with those seeking innovative solutions to what can be complex problems. I'd recommend other businesses to get involved as it's exciting to be able to meet and collaborate with innovation teams in the various utility companies, connected through EIC."

John Hartshorn, Business Development Manager at 1Spatial

2020/2021 EIC impact

355
Ideas reviewed

36
Innovation calls launched (83% success rate)

£3.3m
Investments secured for the innovation community

202
Ideas presented to the industry

28
Live projects and trials

8 Here to support you

The Hub

The EIC's portal for innovators to access the latest industry opportunities, events, funding options and general innovator support.

The Innovator Support page

Hosted on the EIC's website, the Innovator Support Page consolidates all of the key industry information and signposts innovators to the best solution for their queries.

Industry Calendar

Available when registered to the Hub, the Industry Calendar provides all of the information available on upcoming industry events to help you network with like-minded innovators and meet network representatives.

Regular Opportunities

Updated on our website and fully accessible through the Hub, we share regular industry opportunities which you can submit a proposal for.

Regular Webinars

As part of our ongoing 'Meet the Networks' webinar series, we launch frequent webinars around key industry themes and topics where you can pose questions and engage with our energy network partners.

Innovator Impact Panel

The EIC formed the Innovator Impact Panel; a steering group of 20 innovators from the EIC's Innovation Community, created to ensure the views of the companies in our community are represented. To date, the panel has been instrumental in informing and validating key EIC activities, to ensure we continue to deliver services needed and valued by innovators.

IP Guide

To ensure that you understand one of the more complex areas of innovation projects, we have drafted a Guide to Intellectual Property and NIA Projects to provide you with information and support. You can also find further guidance in the Energy Networks Association's 'Energy Networks Innovation Process' **here.**

Innovation Measurement Framework

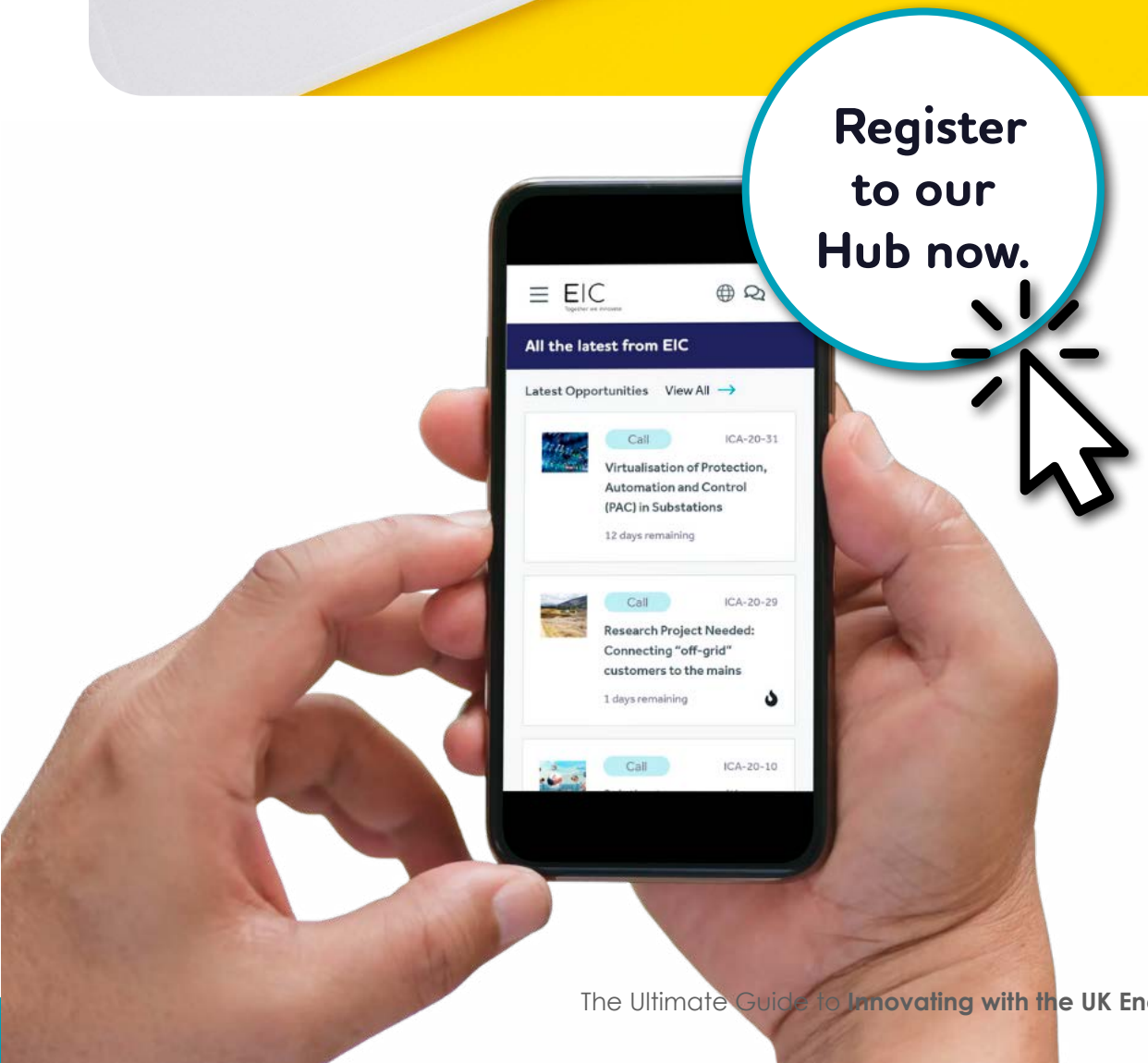
The EIC, the ENA, Ofgem, and consultancy firm Baringa, have supported the industry in developing the world's first industry wide Innovation Measurement Framework (IMF). Whilst the industry previously measured the benefit of a project based on its return on investment (ROI) alone, the IMF looks to measure the environmental and societal impacts of a project, as well as its ROI. To find out more about the Innovation Measurement Framework, click **here.**

9 Getting started

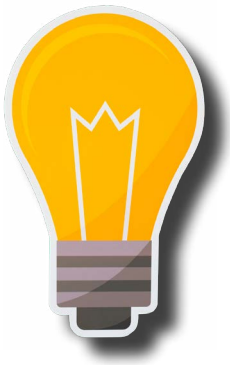
To get started on your journey of innovating with the UK energy networks, choose from one of the following options:

To see our current list of industry opportunities, **click here.**

To have full access to all of the useful tools and materials mentioned in this document, along with full visibility of the current commercial industry opportunities,



Appendix
Glossary of jargon



Business as usual (BAU): When an innovation is described as being business as usual or BAU this means it is being used as part of normal operations, typically following a development project or trial.

Call for Innovation: Calls for innovation are requests for innovation from our network partners, across the energy sector, that aim to solve specific business issues.

Customer vulnerability: Ofgem's '**Consumer Vulnerability Strategy 2025**', defines a vulnerable customer as "one who is: significantly less able than a typical consumer to protect or represent their own interests; and/or significantly more likely to experience detriment, or for that detriment to be more substantial".

Deployment ready solution: An innovation that is fully developed at a technology readiness level (TRL) of 9, and ready to be deployed for use in the industry.

Development proposal: A proposal for an innovation that requires further work or development to raise its TRL.

Distribution network operator (DNO): The distribution networks connect the transmission networks to the end consumer. They own and operate the power and infrastructure that connects the electricity from the transmission operators to customers' homes.

Distributed systems operator (DSO): A distribution system operator (DSO) is responsible for operating and developing the active distribution system. This will involve managing the electricity network so that distributed sources of electricity generation, including large commercial facilities and smaller domestic facilities, are considered and controlled when making network interventions.

Energy Networks Association (ENA): The ENA is the industry body for the UK and Ireland's energy networks, funded by gas and electricity transmission distribution licence holders.

Energy systems operator (ESO): The electricity system operator is responsible for ensuring the stable and secure operation of the national electricity transmission system. This role is performed by National Grid Electricity System Operator (NGESO).

Gas distribution network (GDN): The gas distribution networks are responsible for transporting gas from the transmission network to the end user.

Industry challenge: Industry challenges are requests for proposals to solve wider, more general industry challenges, than put forward in a Call for Innovation.

Intellectual property (IP):"Property (such as an idea, invention, or process) that derives from the work of the mind or intellect." Source: **https://www.merriam-webster.com/dictionary/intellectual%20property**

National Transmission System (NTS): This is the high pressure gas network which transports gas from the entry terminals to gas distribution networks, or directly to power stations and other large industrial users.

Net Zero: Net Zero refers to the balance between the amount of greenhouse gas emissions being produced and the amount being removed from the atmosphere.

Network Innovation Allowance (NIA): The Gas and Electricity Network Innovation Competition (NIC) was introduced by Ofgem as part of the RIIO-1 price controls. Please see more detail on page 17.

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Funding is provided for the best innovation projects which help all network operators to understand what they need to do to provide environmental benefits, reduce costs and maintain security of supply as Great Britain moves to a net zero economy.

Ofgem: The Office of Gas and Electricity Markets is the government regulator for the electricity and downstream natural gas markets in Great Britain.

Priority Services Register (PSR): The Priority Services Register is a free service provided by suppliers and network operators, designed to ensure that the required support is delivered to the networks' most vulnerable customers.

RIIO/RIIO-2: Ofgem, the energy market regulator, has a price control approach called RIIO to ensure the energy networks have enough revenue to run an efficient network that delivers what customers need. RIIO stands for Revenues = Incentives + Innovation + Outputs.

One of the sources of investment in innovation, unique to Great Britain, is via the RIIO framework. The most recent price control period, known as RIIO-2, will prepare the GB energy networks to deliver Net Zero at lowest cost to customers while maintaining world-class levels of system reliability and customer service, and ensuring no consumer is left behind.

Strategic Innovation Fund (SIF): As part of RIIO2 price controls, Ofgem is introducing the Strategic Innovation Fund (SIF) to support transition to net zero. This fund supports large-scale transformational research and development projects.

Technology Readiness Level (TRL): TRL is a method of measuring the maturity of an innovation or technology in relation to its development.

Transmission Operator (TO): They are responsible for developing, operating and maintaining a high voltage electricity system within a distinct transmission area. In Great Britain the three TOs are National Grid Electricity Transmission plc (NGET) for England and Wales, Scottish Power Transmission Limited for southern Scotland and Scottish Hydro Electric Transmission plc for northern Scotland and the Scottish islands groups..

Whole system: "Joined up and efficient approaches across multiple aspects of the energy system, beyond a specific network, around planning, forecasting, design, construction, operation, maintenance and data." Source: **https://bit.ly/3dF589T**

Appendix
Key industry organisations

BEAMA -UK trade association for manufacturers and providers of energy infrastructure technologies and systems.

BEIS - The Department for Business, Energy and Industrial Strategy brings together responsibilities for business, industrial strategy, science, innovation, energy, and climate change. Scope includes Government Strategy on energy, includes Industrial Strategy and the Grand Challenges.

EIC – The EIC, formerly the Energy Innovation Centre, brings industry and innovators together. As a not-for-profit organisation, the EIC operates a shared platform and provide an open environment for its industry partners and innovation community to innovate together.

Energy and Utilities Alliance (EUA) – The Energy Utilities Alliance is a not-for-profit trade association that provides a leading industry voice to help shift future policy direction within the energy and utilities sectors.

Energy Networks Association (ENA) – The Energy Networks Association is the industry body for the UK and Ireland's energy networks, funded by gas and electricity transmission distribution licence holders.

Energy Systems Catapult (ESC) – The ESC is an independent, not-for-profit organisation set up to accelerate the transformation of the UK's energy system by identifying and addressing innovation opportunities and market barriers.

Energy UK - Energy UK is the trade association for the energy industry with over 100 members spanning every aspect of the energy sector – from established FTSE 100 companies right through to new, growing suppliers and generators.

The Institution of Engineering and Technology (IET) - The Institution of Engineering and Technology is a multidisciplinary professional engineering institution.

Institution of Gas Engineers & Managers (IGEM) - The Institute of Gas Engineers and Managers is the professional engineering institution for gas. They support individuals and organisations connected with the gas industry.

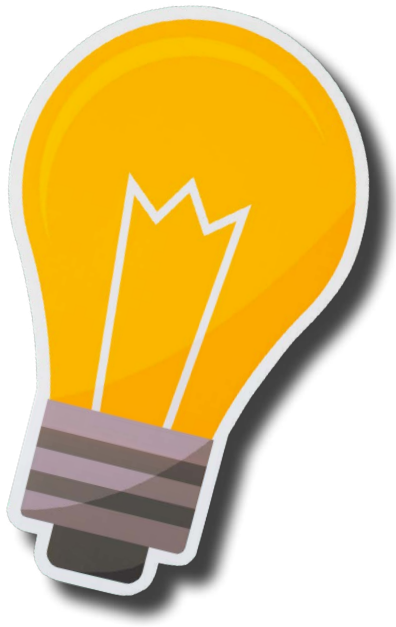
Innovate UK – Innovate UK is part of UK Research and Innovation (UKRI) a non-departmental public body funded by a grant-in-aid from the UK government. Innovate UK fund business and research collaborations to accelerate innovation and drive business investment into research and development.

Knowledge Transfer Network (KTN) – The Knowledge Transfer Network is a UK-wide organisation grant, a network partner of and funded by Innovate UK, working to build better links between science, creativity and business.

Ofgem – The Office of Gas and Electricity Markets is the government regulator for the electricity and downstream natural gas markets in Great Britain.

Ofgem Innovation Link - Ofgem's Innovation Link offers support on energy regulation to innovators looking to trial or launch new products, services, methodologies or business models.

Power Networks Demonstration Centre (PNDC) - The Power Networks Demonstration Centre is a facility unique in its capabilities; it enables companies to develop, test and demonstrate products and solutions in a real distribution network environment. The centre is open to anyone with an interesting or relevant project that may make a contribution to the low carbon future in an EU or global setting.



The Ultimate Guide to **Innovating with the UK Energy Networks**

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