Electricity Distribution



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Who we are and what we do

National Grid Electricity Distribution (NGED) is a Distribution Network Operator (DNO) and a Distribution System Operator (DSO), responsible for distributing electricity to eight million customers.

We are committed to delivering electricity safely, reliably and efficiently to the customers and communities we serve. Our vision is to be at the heart of a clean, fair and affordable energy future. The drive towards a low carbon economy has led to increasing levels of generation directly connected to our distribution network along with new forms of electricity demand, including electric vehicles, heat pumps and battery storage.

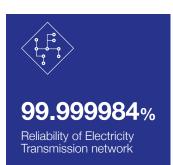
Electricity Transmission

Own and operate the high-voltage electricity transmission network in England and Wales.







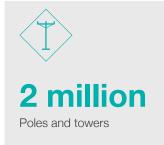


Electricity Distribution

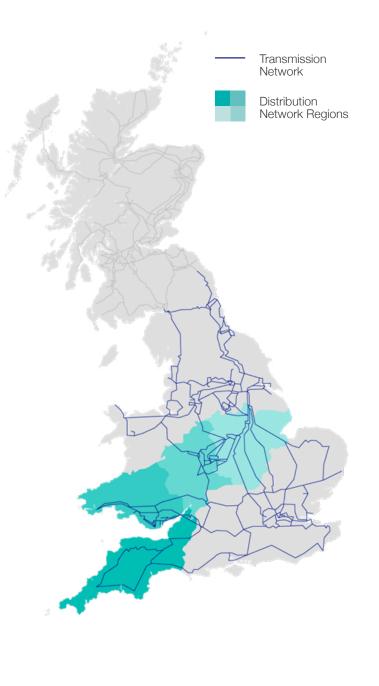
Own and operate the electricity distribution networks for the Midlands, the South West and South Wales.







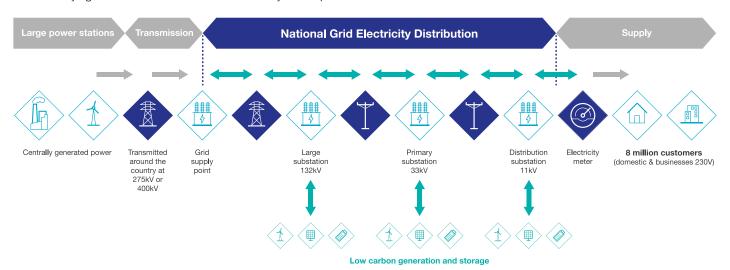




Who we are and what we do

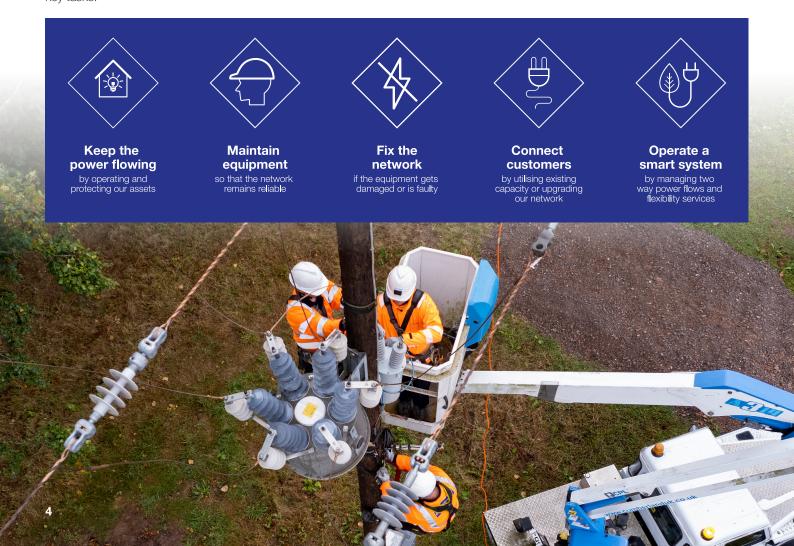
The energy system is undergoing a huge transition because of the changes to electricity generation and use, including the growth of distributed generation and the increasing popularity of electric vehicles and heat pumps.

These changes and the associated increases in demand have required us to develop new processes and systems, including adopting flexible solutions to manage different power flows on the network. To continue to operate a smarter, more efficient energy system, we are carrying out the functions of a Distribution System Operator.



Our key responsibilities

We do not buy or sell electricity, or send any bills to electricity customers. Traditionally, what we do is simple and comprises of five key tasks:





Overview

RIIO-ED1:

Revenue = Incentives + Innovation + Outputs (Electricity Distribution 1)

2023 is the final year of the Ofgem price control period that ran from 2015 to 2023, known as RIIO-ED1; a regulatory framework set by Ofgem to drive clear outcomes for stakeholders and to provide strong incentives for DNOs (Distribution Network Operators) such as NGED (National Grid Electricity Distribution) to perform well.

Ofgem's Incentive on Connection Engagement (ICE), introduced under RIIO-ED1 - Revenue = Incentives + Innovation + Outputs (Electricity Distribution 1), is specifically focused on the area of connections and this year saw the creation of our ninth annual ICE Plan.

Our 2022/23 ICE Plan had a range of initiatives developed in line with our connections strategy, using the input from our broad range of connection stakeholders, through our ongoing programme of stakeholder engagement activities. This report comprises of a looking back section for regulatory year 2022/23, explaining our customer engagement strategy and connection activity plans, in line with the requirements of the ICE incentive.

The report covers all four of our distribution networks; the South West, South Wales, East Midlands and West Midlands.

Our ICE Plan initiatives are all created as a result of stakeholder engagement. Each initiative has a target date for completion and an associated metric indicating the measures we will use to identify success.

Updates are published quarterly, indicating the status of each initiative so that you, our stakeholders, can see how we progressed. Sometimes, we had to extend the target date for completion but only where it was caused as a consequence of the need for further stakeholder feedback and industry led guidance.

Report structure

We have structured the document into two sections:



Section 1 - Introduction

Including an introduction from our Regulation and Corporate Director, NGED's connections stakeholder engagement strategy and connections strategy.



Section 2- Looking Back report

Covering the review of our engagement activities, delivery of our ICE Plan and performance against our outputs and following measures of success in 2022/23.



Introduction

I am delighted to share our 'Looking Back' report 2023 which gives an insight into what we have achieved during the last year within our ICE (Incentive of Connections Engagement).

I would like to extend my personal thanks to customers and stakeholders for continuing to engage with us through the various stakeholder events and forums to provide their insight and direction on how to evolve our Connections business.

Customers pay for everything we do and, as such, have the right to expect a high-level service that fits their needs. Our aspiration is to provide that high level of service.

Likewise, stakeholders have a right to influence the direction of our business.

We have a responsibility to ensure that our diverse stakeholder groups have been given meaningful opportunities to engage with us and that their views and suggestions have been considered and acted upon where possible.

Our 2022-23 ICE plan contained 14 initiatives focused on five key areas:

- Policy Guidance
- Customer Support
- Communication
- Process Improvement
- Stakeholder Engagement.

Here's a snapshot of our successes and what we delivered:

- The use of the latest digital technologies and data innovations to deliver a more efficient, flexible and responsive customer service.
- Automating the process for the connection of domestic low carbon technologies such as electric vehicle charge points.
- Community energy; supporting and giving advice to community energy groups by providing advice on the connections process from application through to final connection.

Looking forward, ICE is to be replaced by the Major Connections Incentive (MCI) from 2023/4 onwards. Under the MCI, DNO's performance will be measured and reported via a Major Connections Customer Satisfaction Survey and a Major Connections Annual Report.

However, regardless of the reporting incentive or metric, our aim is always to continue to improve our service to all of our customers and we cannot do this without your feedback.

To be successful we will have to continually adapt but our common aim is to ensure that NGED (National Grid Electricity Distribution) continues to be known as an organisation that leads for connections customer service.

Alison SleightholmNGED Regulation and Corporate Director



News about ICE

NGED Stakeholder engagement

We have engaged with

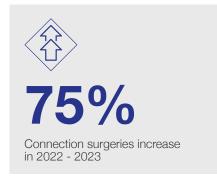


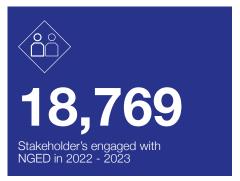


ICE Headlines









Digital transformation is the key to unlocking our connections business true capabilities.

Relevant Market Segments

In accordance with ICE (Incentive on Connections Engagement), this report explains our engagement and enhancements for covering each of the Relevant Market Segments (RMS) that we have not previously passed under Ofgem's Competition Test.

However, it is important to us that we engage with all connection stakeholders and our continual improvement is aimed at all market segments (see table below). Our engagement strategy and ICE Plan therefore cover the full range of connection stakeholders and connections activities and are not just targeted at those required by ICE. In this report, we have identified which of the Relevant Market Segments we are targeting each of our engagement or service improvement actions against.

	CONNECTIONS and RMS								
	Demand connections			Distributed	generation	Unm	Unmetered connections		
LV work	HV work	HV and EHV work	EHV work and above	LV work	HV and EHV work	LA work	PFI work	Other work	
demand c voltages e • domest • comme • electric • Indeper	Connections to metered premises for demand customers at all connection voltages e.g.: • domestic houses • commercial and industrial units • electric vehicle charging points • Independent Distribution Network Operator networks.		Connections to mete generation at all volta rooftop solar install largescale windfarr battery storage.	ages e.g.: lations		S			



Our connections strategy under RIIO-ED1

Our fundamental objective is to provide excellent service for customers connecting to the network whilst facilitating competition in the connections market. These overarching connections outputs help us to achieve that goal.

Our strategy in respect of connections customer engagement is built upon well-established principles.

Our simple ethos is to listen to what our customers tell us in terms of their requirements and translate that into a set of high-level connection objectives designed to fulfil those needs.

We then take these high level objectives and create more specific initiatives for inclusion in our ICE plan that focus on key deliverables and how we measure our success. Our aim is to deliver an exceptional connections service for our customers. To help us in our goal, high quality, frequent and engagement with a purpose with our stakeholders is therefore crucial to achieving this. As part of our approach we have to take into account the differing needs of our stakeholders and tailor our service accordingly.

At the start of this current distribution price control period (RIIO-ED1) we set out five key connections objectives that our strategy is built upon.

Our primary connections objectives for RIIO-ED1 are shown below;

To provide a faster and more efficient connections service.

The key output is to improve the overall time to connect by 20%, whilst still maintaining excellent customer service such that NGED continues to be the top ranked DNO (Distribution Network Operator) group by customer satisfaction surveys.

To improve communication with customers.

This objective centres on delivering outputs that improve how our stakeholders can communicate with us and the information that we can provide them. There is a focus on developing and enhancing online information and interaction for connection customers.

To enhance engagement with major customers.

Outputs for this objective centre on ensuring we communicate effectively to gain feedback to better understand the requirements of major customers. Enhancing our engagement leads to improved focus on these customer requirements and drives the development of our priorities

for our ICE Plan initiatives.

To achieve guaranteed standards of performance.The target to achieve zero failures of connections Guaranteed Standards of Performance (GSoPs) ensures that we maintain our focus on the core connection activities required at each stage of the connection process.

To enable facilitation of the competitive market.

NGED has a key role in the facilitation of competition in connections and it is important that we continue to work with customers and connection providers to ensure that we further develop competition in connections to ensure a level playing field in the connections market.



Our stakeholder engagement strategy

Well established and effective

Our stakeholder engagement strategy is firmly entrenched in our culture. Established in 2007, the strategy underpins our connections improvement activity, driving how and when we engage.

It is fundamental to how we do business and drives a continual cyclical engagement programme allowing us to build long-term stakeholder relationships and facilitate meaningful engagement with robust feedback and challenge.

The foundations of our approach are enduring, and guided by seven principals. However, to maintain effectiveness, the strategy is evaluated and updated each year with sign-off from our President and Directors. This ensures that our engagement approach continues to effectively deliver our initiatives, demonstrating we are adaptable to changes in the connections environment thus ensuring our stakeholders' priorities and expectations are met.

The Seven Principles



Identify stakeholders

- Recognise emerging stakeholders.
- Maintain stakeholder contacts.



Understand their needs

- Identify the range of interest areas from unmetered to Distribution Energy Resources (DER).
- Undertaking targeted engagement.



Always engage with a purpose

- Avoid talking shop, demonstrate we have listened via the actions we undertake.
- Inclusive and proactive engagement.



Range of methods

- Use a variety of mechanisms e.g. expert panels, workshops, surveys etc.
- Tailor to suit the audience.



Listen, act and measure benefits

- Engage on priorities ICE plan identified.
- Listening and understanding stakeholders' perspective.



Use feedback to improve service

- Short-term: policies, procedures, processes.
- Long-term: shape our strategic priorities.



Make feedback available

- · Publish findings and NGED's response.
- Clear line of sight to ICE 2022/23 Plan.

To build a truly stakeholder led plan you must consult extensively at every stage, including establishing the priorities of the stakeholders from the outset.

Stakeholder feedback

Our engagement methods

This well-developed engagement strategy provides a strong foundation but also allows us to be flexible and responsive in identifying and quickly incorporating new stakeholder priorities.

This year, more than ever before, we have endeavoured to employ the use of 'co-creation', a method under which we try not to influence the outcome but allow stakeholders to form their own actions. This helps us to understand where their priorities are so that we can focus on areas that are really important to them. We are particularly grateful to our CCSG (Connection Customer Steering Group) panel, a group of expert stakeholders from across the spectrum of connections customers, who provide well-informed input into proposed initiatives and help us to refine them into meaningful actions.

Identifying Stakeholders

We continually review and refresh our stakeholder mapping to make sure that we have the right mix, being holistic and inclusive for the full range of connections activity. We understand that different stakeholders have differing levels of knowledge, interest and availability so we tailor our methods to be most appropriate and effective.

Embedded

Our well-established core engagement strategy has helped our staff to understand and recognise the importance of the role they each play in its success. Staff directly responsible for the area deliver our stakeholder engagement thus improving communication channels and better informing the decisions we make. Establishing these direct local stakeholder relationships underpins the effectiveness of our engagement and our ability to respond decisively.

Developed and Responsive

In ensuring that our engagement leads directly to action and is not just simply confirming predefined proposals, we are able to build trust with stakeholders and their willingness to commit their time to regular engagement activities. This results in long-term relationships building knowledge and quality of engagement with an ability to have more scrutiny and challenge. Through this, we are able to have detailed conversations driving improvements through two-way feedback and collaboration.

Feedback

Debriefing on feedback to our external and internal stakeholders following an engagement helps us build on the momentum and helps demonstrate intent to incorporate insights.

	Debrief on feedback	Outline next steps
External stakeholders	 Summarise and quote stakeholder feedback. Highlight both areas of agreement and disagreement among stakeholders. 	 Set expectations of when and how feedback will be integrated. Set timelines for future engagements and action updates.
Internal stakeholders	 Develop a summary of insights that captures stakeholder feedback. What perspective were represented? What risks and concerns emerged? What are the outcomes and impacts? 	 Align internally and decide when, who and how to further engage. Review and decide on stakeholder feedback recommendations.



Engaging with our stakeholders

We have followed an enhanced and expanded approach to stakeholder engagement in order to co-create our ICE plan and our Business Plan for RIIO-ED2.

We aim to deliver industry leading stakeholder engagement that is meaningful, leads to substantive improvements for customers and enables them to hold us to account for our performance.

To deliver this we must have an engagement programme, which is comprehensive, extensive and tailored to be inclusive of a broad range of stakeholders.

To ensure that we accommodate all our connections customers' needs, we engage with stakeholders by various means, including connection workshops, connection surgeries and regular expert panel meetings.

Our preferred approach is firstly to engage face-to-face wherever possible, providing scope for in-depth discussion on complex issues and high priority issues.

Although, engagement during the last few years has changed but with the help of various virtual platforms, and using the hybrid approach – in-person and online, we have managed to keep in touch and obtain the important feedback from you that helps us to ensure we remain on-track.



Who is a stakeholder?

Any individual, group of individuals or organisation that affects, or could be affected, by NGED activities, services or associated performance.

Our Customer Connections Steering Group (CCSG) meets regularly which has proven to be an excellent source to challenge us throughout the ICE process, and has been instrumental in the design of our plan. CCSG members have encouraged us to be ambitious and industry leading in our approach.

Our third Connections Workshop held in November 2022, as a further enhanced hybrid meeting was considered a success, as it helped us understand our stakeholder's needs and priorities. We have now committed to hold this event annually.

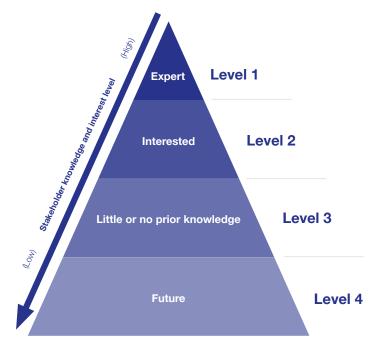
Because our stakeholders have, a broad range of knowledge and interest we understand that a one-size-fits-all approach does not always deliver long-term meaningful engagement and so we use a variety of methods to ensure we reach as many stakeholders as possible. We do consult on larger industry issues in order to obtain feedback and inform our decision making process.

Consultation encourages a more in-depth discussion and allows stakeholders to describe in detail their aspirations and concerns. Through feedback we are able to reach a 'minded to' position that can be discussed further and refined as necessary before becoming part of our strategy, policy or process.

The table below shows how we identify stakeholders by their knowledge and interest to tailor the methods of engagement delivery.

Stakeholder Level	Engagement metl	hods:
Level 1: Expert Stakeholders we work closely with to build their knowledge to an 'expert' level, or those who already have an in-depth knowledge of connections activities.	Customer Connection Steering Group Stakeholder workshops. Consultations.	 Bilateral meetings. Industry working group. External industry events.
Level 2: Interested Stakeholders who interact regularly with NGED for connections activities and have a sizable knowledge and interest in this area.	Stakeholder workshops. Consultations. Bilateral meetings. DG survey.	Connection surgeries.Community energy events.
Level 3: Little or no prior knowledge Stakeholders who may only interact once or occasionally for connections activities and have little knowledge of NGED or this area.	DG and customer surveys. Connection surgeries Annual stakeholder and ICE reports.	Website.Media awareness campaign.Social media.
Level 4: Future Stakeholders who may want connections in the future and may have no knowledge of NGED or this area.	Connections surgeries. Annual stakeholder and ICE reports. Community energy events and	 Media awareness campaign. Social media. Website.

guide.



Details of our ICE Plan and associated updates can be found on our bespoke stakeholder engagement website:

yourpowerfuture.nationalgrid.co.uk/our-engagement-groups

The use of social media channels helps us to share news, raise awareness and encourage further customer feedback.

Independent assessmentstakeholder engagement strategy

While our approach to co-creation and seeking continual input from stakeholders in our decision making gives us confidence we are delivering excellent outcomes, external review and accreditation plays a vital role to ensure we deliver the quality and efficacy we are striving for.

Beyond providing important validation, accreditations such as the Customer Service Excellence (CSE) standard provide comprehensive independent scrutiny and perspective to identify ways to further enhance our positive impact for customers. It gives stakeholders assurance we are credible, responsible and compliant with best practice standards in the UK.

NGED is celebrating 30 years of outstanding customer service having recently achieved its 2022 CSE standard with a record number of top ratings.

The company gained an extra 'compliance plus' rating – indicating best practice across sectors – taking its total to 47 (out of 57 elements assessed).

We have the highest number of compliance plus ratings and are one of the few companies assessed by QIA Services Ltd to hold the standard continuously for 30 years.

We also continue to have zero non-compliance or partial compliance ratings.



47/57 'Compliance Plus' ratings



Top UK performer for 30 years



No non or partial compliance

Excellent customer satisfaction and performance levels continue. Partnership arrangements and wider community activities are outstanding. Schemes for Priority Services Register (PSR) customers provide holistic support for those in fuel poverty.

CSE Assessor 2022/23





We strive to provide the very best levels of customer service and particularly value the CSE standard because it drives improvements for our customers.

It allows our strategies and processes to obtain critical external evaluation and ensures we receive recommendations for further improvement.

This helps us to drive our standards even higher and continuously improve our customer service.





Introduction

In this section we present the results of our engagement and improvement activities for connections stakeholders over the 2022/23 year under the ICE incentive. We set out how our ICE plan has delivered improvements against our stakeholders' feedback which we identified and set out in our ICE 2022/23 plan. We also explain how our stakeholder engagement has ensured that we continue to listen to our stakeholders to understand what they want us to focus on to assess the impact our improvements have had.

Responding to our stakeholders' requirements and to the changes which we face in the transition to RIIO-ED2, over 2022/23 our engagement programme has expanded significantly with new activities and new stakeholder groups engaged.

We have established new stakeholder relationships with the expansion of our DSO (Distribution System Operator) engagement, new engagement such as our developer/builder forum and our Local Investment Workshops is expanding our reach and increasing the guality of the feedback informing our plans.

Quality, frequent and challenging engagement with our stakeholders is crucial to the success of any organisation. It helps us to establish our priorities and key areas of focus; it influences our future and reveals real opportunities for improvement in the ever-changing electricity sector.

Our engagement underpins the improvements we have made in 2022/23, we delivered 14 actions under our ICE Plan.

Building on the work we delivered in the previous plan, we have continued to address our stakeholders' feedback, increasing the amount and quality of information we make available to assist customers with their connections.

We have for example, made substantial enhancements to the information available on the NGED Connected Data Portal, access to our Connected Data Portal which has been created to enable easy access to all of the existing data that NGED (National Grid Electricity Distribution) currently share with the industry, regulator and customer - National Grid - Digitalisation & Data landing v2 and our generator portal - National Grid Generation Portal - Home, both enabling customers to make more informed plans and decisions.

During 2022/23 we focused on five key areas for delivery;

Within the Plan we have actions relating to;



Policy Guidance



Customer Support



Communication



Process Improvement



Stakeholder Engagement

It is important to us that we deliver what you want and so we will continue to work on these commitments.

In our **Policy Guidance** area we agreed to provide virtual inspections and audits for our Independent Connection Providers (ICPs) We have initiated a trial for Competition in Connections (CiC) inspections, as per our ICE commitment. This has been a valuable step in digitalising the process between the DNO (Distribution Network Operator) and ICP interface. Following on from the initial trial we will now be progressing to start offering virtual inspections. Before we can provide this service we are currently in the process of ensuring we determine which specific inspections are able to be carried out virtually.

Customer Support, one area of focus was the electric heating online web page, we have reviewed the existing guidance and produced a new guide in December 2022 - Low Carbon Heating Strategy and renamed the web page to Low Carbon Heating - Its use of innovative solutions to allow for faster and more efficient heat pump connections will help reach the government's goal of 600,000 heat pump connections a year by 2028. NGED is projecting that it will connect over 628,000 heat pumps across its network during the next price control period in 2023-28.

Communication, we have introduced a Customer Portal. The customer portal looks to begin the transition of all connection's services being provided in a true online experience, where customers can access their account information, view their order/request history, and make updates to their personal information. Also, track the progress of their application(s)

through to delivery and connection via the website.

Process Improvement - improving our process is a key area in making the domestic Low Carbon Technology (LCT) acceptance web-based. Our new domestic EV self serve connections website is now live, making it possible to apply online for an electric vehicle (EV) charge point connection and get an instant response for the first time. From our December launch we have received 1074 applications and all have benefited from the instant approval.

Stakeholder Engagement - our focus has been on Community energy schemes, by encouraging and supporting community groups to come forward with projects, by producing guides with information about funding schemes. 960 stakeholders have taken the opportunity to have some form of engagement, by Community surgeries, workshops or Community dissemination events.



This "Looking Back" section of this report provides more detail on each initiative and an overview of the work completed. We hope that you find it interesting and informative.

Our 2022/23 engagement activity summary

Our connections engagement is comprehensive, wide reaching and real. It has helped us to identify the activities our stakeholders think are most important and to gain their insight in delivering initiatives with positive benefits for our customers.

We have continued to engage intensively and broadly using various methods that include both broad measures and through stakeholder groups focused on specific topics.

We always engage with a purpose and it is vital to us that the expansion of engagement does not diminish the quality and continues to drive our actions. Our customer enduring panels such as CCSG (Customer Connection Steering Group) and DGOO (Distributed Generation Owner Operator) continue to inform our processes and can be relied upon to provide ongoing challenge and detailed feedback.

We welcomed new members to the CCSG in 2022-23, and our director was pleased to be able to host all three sessions with new and existing members who have been invaluable in providing their time, expertise and support so that we can develop our businesses together. The discussions held with this group help us sharpen our focus on our priorities.

This year we have continued to expand the range of engagement methods to ensure that we can access hard-to-reach stakeholders or those with limited availability. Our use of virtual platforms has proved successful. The use of hybrid workshops has also helped us to convey updates and messages.

For example, our annual connections workshop covering the connections strategy, digitalisation of connections and LCTs (Low Carbon Technologies) in the anticipated high volume connections.

Social media outlets, such as LinkedIn posts and the NGED fortnightly website update newsletter sent by email with 984 customers registered and surveys has also allowed us to reach as many stakeholders as possible.

We commissioned an independent market research provider to obtain views from more than 1,745 major customers on quotation and delivered connections services and 384 distributed generation customers to seek their detailed feedback of their experience of working with us. We also presented on ICE topics to 52 attendees at our CCSG throughout the year, to endorse our plans. An increase of 15% attendees from the previous year.

The table below sets out a summary of the engagement activity undertaken by NGED during 2022/23 with our connections stakeholders. For each activity, the table gives a brief description, the number of stakeholders engaged with this activity through the year and the market sector the stakeholders broadly represented.

Surveys 2022/23

Activity	Description	Reach	Market Sector
Major Customer Survey	An NGED commissioned monthly customer satisfaction survey of connections customers covering the market segments under the ICE scope. The style of the survey remains in line with that conducted under the Ofgem Broad Measure Survey. Customer satisfaction score (connections quotation and completed) 8.4/10.	1,745	UMS MD DER IGP
Distributed Generation (DG) Survey	An NGED commissioned customer satisfaction survey of Distributed Generation connections customers. The style of the survey remains in line with that conducted under the Ofgem Broad Measures Survey. The customer satisfaction score for 2022 - 2023 was 8.5/10 .		UMS MD DER ICP

Total



Stakeholder Activities 2022/23

Activity	Description	Reach	Market Sector
CCSG (Customer Connection Steering Group)	Panel of experts across the connections market to inform, influence and feedback on NGED connections plans and activities. The outputs from this group also feed into our overarching customer panel.	52	UMS MD DER ICP
NGED Connection Customer Workshop	NGED Connections Workshop held in November 2022, hosted a 'hybrid' connections stakeholder event, with some people attending in person and others joining remotely.44% increase in stakeholders from the previous year. Customer satisfaction score 7.7/10.	121	UMS MD DER ICP
NGED Distributed Generation Owner Operator (DGOO) Forum	Four meetings are planned throughout 2022/23 The forum enables NGED to gain an understanding of DG owner/operator needs to develop actions to improve the services we provide. Customer satisfaction score 9.0/10.	75	UMS MD DER ICP
Connection Surgeries	Connection surgeries are held to facilitate customers with a virtual/telephone discussion on a one to one with our engineers/ planners about their connection requirements.	3,043	UMS MD DER ICP
Customer Engagement Group (CEG)	NGED's independent CEG providing input and challenge to our proposals for our RIIO-ED2 business plan.	2	UMS MD DER ICP
NGED Customer panel	Quarterly customer panel meetings help to inform NGED's strategy and action plans for a variety of areas. Collaborative decision-making on communications, fuel poverty funding and connections strategy. Independent review of NGED's delivery and engagement provided through a member-written assurance report.	29	UMS MD DER ICP
NGED Customer panel surgeries	Surgeries on Connections and Network Investment, Social Obligations and Community Energy attracted 21 stakeholders and allowed expert engagement and input in to our plans and activities.	21	UMS MD DER ICP
NGED Local Network Investment Surgeries	One-to-one surgeries for 53 delegates at local network investment events.	53	UMS MD DER ICP
Community Energy Surgeries	Community Energy Surgeries so that stakeholders can request bi-lateral meetings. 31 Surgeries with 152 stakeholders held in-person and on-line.	152	UMS MD DER COP
Net zero Surgeries	Stakeholders will be able to request bi-lateral meetings with a local multi-disciplinary team to help facilitate progress towards decarbonisation.	66	UMS MD DER ICP
Senior Manager Contacts	Major customers have been allocated a senior manager point of connection within NGED. This contact may include discussions on issues relating to specific projects and overarching discussions on policies or processes.	86	UMS MD DER ICP
UMS User Groups	Meetings held for broadband infrastructure stakeholders.	2	UMS MD DER ICP
NGED Stakeholder Workshops	6 in-person and hybrid workshops, with round-table discussions helped us to update our view of stakeholder priorities, as well as negotiate and refine RIIO-ED2 delivery plans in light of the changing external landscape including connections, held at various locations across all 4 NGED licenced areas.	198	UMS MD DER ICP
NGED Remote Stakeholder Workshops	Three remote topic-specific workshops sought feedback on our RIIO-ED2 Business Plan, topics including vulnerability, affordability and connections.	203	UMS MD DER ICP



Stakeholder Activities 2022/23

Activity	Description	Reach	Mark	et Sec	tor	
NGED Safety Conferences	Five Safety conferences, 741 members of staff, contractors, ICPs and trainees followed case studies and virtual training to raise the profile of safety, health and the environment.	741	UMS	MD	DER	ICP
NGED Local Strategic Network Investment Event	11 local investment workshops allowed 102 stakeholders to meet our teams (led to eight actions). Improved understanding of our investment plans, low carbon strategies and impacts of specific schemes. Actions included delivery of co-ordinated local development plans and development of a Local Area Energy Plan (LAEP) template to help local authorities Customer satisfaction score 8.8/10.	102	UMS	MD	DER	ICP
Members of parliament engagements	155 political engagements across NGED's Stakeholder Engagement and Consumer Vulnerability (SECV) programme e.g. political meetings, receptions, policy teach-ins, site visits and wider engagement with key policy makers. Providing awareness and advice to MPs, civil servants and businesses about issues such as achieving a decentralised, decarbonised energy system and helping facilitate the take up of LCTs (Low Carbon Technologies).	223	UMS	MD	DER	ICP
Community Energy stakeholder workshops/ dissemination	Community Energy stakeholder workshops with our Community Energy Engineer, 4 events.	80	UMS	MD	DER	ICP
Community Energy discussion events	Community Energy dissemination discussion with our Community Energy Engineer, discussing individual community energy projects, 40 in total with 728 attendees.	728	UMS	MD	DER	ICP
Flexibility Services	Four 'Flexibility Services' webinars and two surgery days attracted over 50 interested flexibility providers.	50	UMS	MD	DER	ICP
NGED - DFES 2022	Pro-actively engage with all local authorities to share our Distribution Future Energy Scenario (DFES) data. Sharing our forecasting data and discussing local plans for low carbon technologies. Four Stakeholder Consultation Webinar Summary Reports published following proactive engagement with all 130 Local Authorities (LAs).	221	UMS	MD	DER	ICP
NGED Access Significant Code review (SCR)	Allowed internal stakeholders to understand NGED's Access SCR strategy and sought feedback on process with webinar video and FAQ on our internal intranet.	930	UMS	MD	DER	ICP
NGED Competition in Connections	Online training for 550 staff members involved in CiC (Competition in Connections) to reflect considerable growth in the market.	550	UMS	MD	DER	ICP
NGED Developer and Housing builders Event	Hold an event in spring 2023 to brief a wide spectrum of developer/builder stakeholders on NGED's connection strategies, ED2 and the net zero future.	20	UMS	MD	DER	ICP
CIRED	International Conference on Electricity Distribution was held September 2022.	1,500	UMS	MD	DER	ICP
CENEX	Low carbon vehicle connected automated mobility event - September 2022.	4,692	UMS	MD	DER	ICP
Utility Week Live	Exhibited at Utility Week Live in May 2022 at Birmingham NEC.	2,200	UMS	MD	DER	ICP
Energy Networks Innovation Conference	The Energy Networks Innovation Conference (ENIC), formerly the Low Carbon Networks & Innovation Conference (LNCI), is managed by the ENA. The conference is on managing, developing or implementing innovations and will pave the way for the future net zero emissions. Held in February 2023.	500	UMS	MD	DER	ICP
	Total	19 760				

Total

18,769







Our ICE 2022/23 plan outcomes

Responding to our stakeholders' requirements and to the changes which we face in the transition into RIIO-ED2 - Revenue = Incentives + Innovation + Outputs (Electricity Distribution 2), our 2022/23 engagement programme has expanded significantly with new activities and new stakeholder groups engaged. New engagement such as our developer forum and our Connections, Community, and net zero surgeries are expanding, with an increase of 76% in Connection surgeries in 2022/23. Our reach and increasing the quality of the discussion on specific topics and projects is a benefit to our customers.

In this section we present the results of our engagement and improvement activities for connections stakeholders over the 2022/23 year under the ICE incentive. We set out how our plan has delivered improvements against our stakeholders' feedback which we identified and set out in our Looking Forward Report in May 2022. We also explain how our stakeholder engagement has ensured that we continue to listen to our stakeholders to understand what they want us to focus on to assess the impact our improvements have had.

Building on the long-term relationships established with our stakeholders such as in our CCSG (Customer Connection Steering Group) or our Distributed Generation (DG) Owner Operator Forum, we continue to evolve our engagement to facilitate more detailed discussion and robust feedback. This quality of engagement is vital to our continued improvement and informing our plans as we move to a smarter more flexible network.

Our engagement underpins the improvements we have made in 2022/23, we delivered 14 actions under our ICE plan.

Building on the work we delivered in the previous plan, we have continued to address our stakeholders' priorities, increasing the amount and quality of information we make available to assist customers with their connections. We have for example, made substantial enhancements to the NGED connections website, with self-serve applications available for budget estimates and domestic electric vehicles, both enabling customers to make more responsive and rapid applications.

The evolution of our plan over the year demonstrates our commitment to constant improvement and continuous engagement - we do not wait for the next plan to start making the improvements our stakeholders ask for.



Policy Guidance

ICP virtual audits

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Better transparency of post acceptance inspections programme - clarity on when an engineer will be appointed, provision of a programme/ works schedule for the ICP installations, in relation to the inspections.	Investigation of adoption of virtual audits/inspections as part of CiC inspection policy. Run a series of trials for virtual audits across NGED's regions, in a phased approach.	To trial a new virtual audit process. Positive stakeholder feedback.	UMS MD DER IOP	Q4 Dec 2022

Outcomes





Following stakeholder feedback for our ICE (Incentive on Connections Engagement) regulatory compliance for RIIO-ED1. The existing Independent Connections Provider (ICP) audit solution is manually time consuming for both the customer and our staff and as we transition into RIIO-ED2, the number of new customers and connections is expected to greatly increase as well as the number of low carbon technology types our customers connect to our network, thus the way we interact with the connections audits needs to adapt.

A manual audit process is not dynamic to accommodate the pace of these changes and so a dedicated interactive video solution is an answer to optimise our connections processes, customer journey and experience.

In 2021–2022, we carried out 3882 ICP (Independent Connections Provider) site audits in compliance under our Competition in Connections for inspecting an ICP and NGED connections business work. The process ensures that the installed assets are accurately recorded when handed over for adoption and have been constructed to satisfactory standards in accordance with NGED's policy and standard techniques.

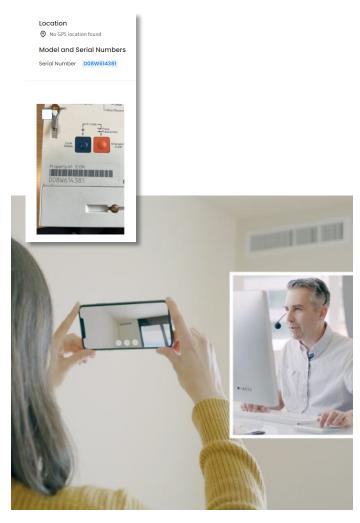
The ICP (Independent Connections Provider) virtual audits will give better transparency to the customer in a timed appointment, providing a faster response and a frictionless experience. At present the audits/inspections can be frustrating for the customer and our staff, and financial inefficiencies for both parties if an abortive audit occurs for any reason.

We have trialled two virtual audit providers and we are currently in the process of procuring a collaborative partner. The virtual audit trial was very well received and we could see from the positive feedback that the customer experience, financial benefits and customer satisfaction would be a firm business decision.

To enhance our customer experience, to meet and exceed the expectations of our customers during all interactions with our company. To enhance the customer satisfaction survey for RIIO-ED2.

I just pointed the phone at the meter serial number and it took a screenshot, nothing comes up on screen initially but when you end the call it is captured...amazing.

Jamie Stevens, NGED Dispatch Team Manager





Policy Guidance

Statement of Works

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Provide guidance relating to how the Statement of Works (SoW) process will develop following codification.	To update external guidance document, information on NGED's website and template letters following the outcome of CMP298, which is designed to formally codify the Appendix G process into Connection and Use of System Code (CUSC). Following the improvements made we will identify and implement any further enhancements to the 'Connections information' pages on the NGED website.	Update document issued to stakeholders. Positive feedback from stakeholders through a questionnaire in relation to the updated document.	UMS MD DER ICP	Q1 Mar 2023

Outcomes

- Updated our website with clearer, concise information and a csv(comma-separated values) download option for all Appendix G information updated monthly - National Grid - Statement of Works.
- 2,500 hits on webpage for Statement of Works.
- 314 view on cancellation charge calculator National Grid Cancellation Charge Information.
- National Grid Appendix G Information.

We have reviewed and updated Statement of Works (SoW) information on our website. We have provided the latest SoW information in a clear and accessible format. Appendix G information page has been revised to allow customers to easily navigate through each GSP in our licence area. We have also created csv (commaseparated values) download option for all Appendix G information, this is a text file that has a specific format which allows data to be saved in a table structured format.

CMP298 is the formal codification of the Appendix G we have been running as a trial for the last 6+ years. Unfortunately for us, there will not be any significant change although we were pioneers of the trial. We continue to campaign for changes to make the process simpler and agreeable for the customer.

What is statement of works

Generators wishing to connect to NGED's distribution system may have an impact on the National Electricity Transmission (NETS). NGED is required (under the Connection and Use of System Code) to make a request for a SoW (Statement of Works) to National Grid Electricity System Operator (NGESO) in relation to the potential impact of generation connections on the NETS.

Due to the cumulative impact of connecting large volumes of new generation to the distribution system and the lengthy SoW process, a new trial SoW (Statement of Works) process is currently in place, known as the 'Appendix G trial'.

NGED has been instrumental in trialling this new process and the first DNO (Distribution Network Operator) to have an Appendix G in place. The introduction of the Appendix G has reduced the time customers have to wait for the outcome of the process from around four months to six weeks.

Unmetered Supply

What is CMP298

CMP298: Updating the Statement of Works process to facilitate aggregated assessment of relevant and collectively relevant embedded generation.

The current Statement of Works process can be inefficient and time-consuming where there are concurrent multiple DG schemes.

Network Operators have, for a number of years, trialled and refined a more efficient aggregated assessment (widely known as the "Appendix G" process) of DG (Distributed Generators) that have or may have an impact on the NETS (National Electricity Transmission System). CMP298 seeks to introduce this process into the Connection and Use of System Code (CUSC), which will sit alongside the current Statement of Works process. Industry codes underpin the electricity and gas wholesale and retail markets.





Distribution Energy Resources

22

Policy Guidance

G99 application advice

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Update through information on how the G99 process is working on the ground, office studies and on-site testing.	Provide improved guidance advice for customers on completing applications when applying for G98 or small G99 installations. Include example application forms and schematic drawings.	Complete guidance for customers. Example scenarios produced on our website.	UMS NID DER ICP	Q4 Dec 2022

Outcomes

- Guide completed National Grid G99 connection procedures.
- G99 Fast Track process National Grid Fast track (G99).

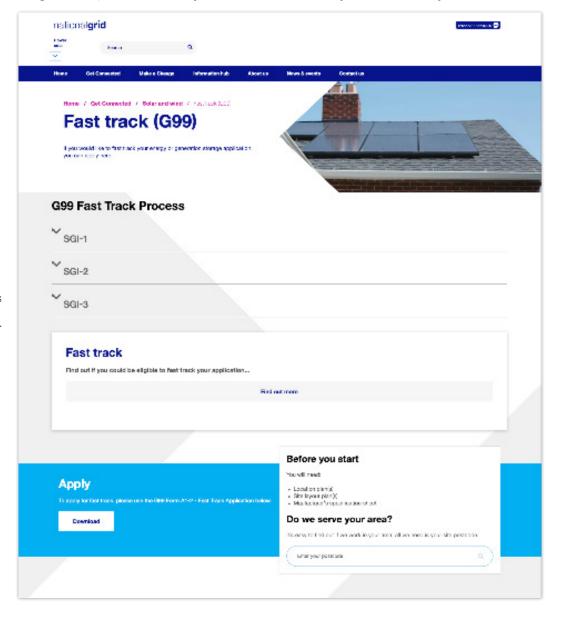
The tasks undertaken to get connected differ dependant on the size of the generating capacity. In general, the bigger the Power Generating Module, the more complex the connection requirements and process.

The guidance document focuses on the information required at each stage of the G99 application process that occur between the Customer, as the developer and NGED (National Grid Electricity Distribution) in relation to Engineering Recommendation G99 'Requirements for the connection of generation equipment in parallel with public distribution networks on or after 27 April 2019' (EREC G99).

The G99 Connection Procedures page of our website gives a clear view of which Energy Networks Association (ENA) forms are required at each stage of the process, this guidance includes the new updated G99 Fast Track SGI1, 2 and 3 processes. It also provides the key actions for the Customer to undertake and complete to connect a Power Generating Module.

During this year we are to progress further with our web developers and the DG community, we are due to provide an improved guidance and service to our customers when applying for a G98 or small G99 installations through a self-serve online application.

This will enable a quicker, more responsive application service with an instant response and approval in many cases, this is in line with our data and digitalisation connection strategy.





Distribution Use of System advice/information

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
In connection offers there's no information on when payment needs to be made or standing charges. It's only when the application is accepted that we are told when it should be paid by. It would be good to have clarity during the application stage.	Pro-actively sign post in the Connection Agreement (CA) to the charging methodology. Simplifying and improve the 'use of system charges' web page to enable our relevant staff to sign post customers to the system charging information.	Update the Connection Agreement by Q3 2022. Completion of implementation of the 'use of system charges' web page.	UMS MD DER ICP	Q4 Dec 2022

Outcomes

Implemented web page December 2022 Ongoing Charges.

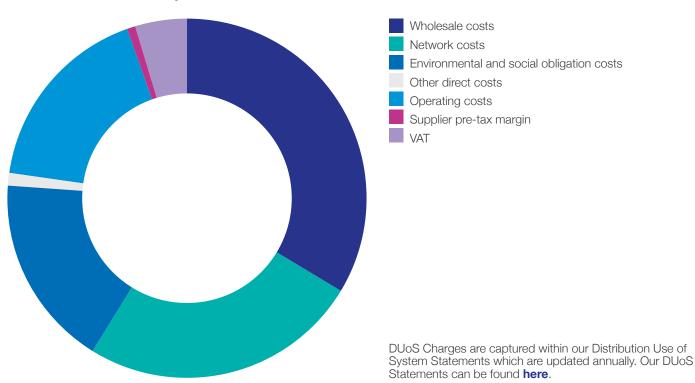
We have updated our CA (Connection Agreement) to include reference to the ongoing costs associated with our Distribution Use of System (DUoS) charges.

A new page; Ongoing Charges, has been incorporated within the information hub of our connections website. The page provides an overview of the Use of System Charges along with a typical breakdown of an electricity bill.

During the lifetime of your connection we will charge you for the cost of operating and investing in our electricity network. These charges are called Distribution Use of System Charges or 'Duos' Charges. The Duos charges are governed under the Common Distribution Charging Methodology (CDCM).

DUoS Charges make up part of your supply bill. Typically DUoS charges make up approximately 17% of a domestic customer's final bill.

Breakdown of an electricity bill



05 Electric Vehicles (EV) charging mobility

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
EV (Electric Vehicles) charging for non-domestic customers i.e. large public charging/airports/distribution/large retail/bus and transportation. Also for disabled car charging facilities.	We will undertake some pilot schemes, in partnership with mobility charities, consumer groups and local authorities. Exploring data and evidence to identify the needs for accessibility for disabled drivers, the analysis will help recommend the most effective intervention. Outline an implementation plan with practical ideas that can be put forward for trial. Define an engagement plan to socialise findings with relevant parties. Support engagement and develop well-rounded views of differing needs.	Updated document issued to stakeholders. Implement stakeholder engagement plan.	UMS MD DER ICP	Q1 Mar 2023

Outcomes

- Updated EV Local authority Guide Guide for Local Authorities around converting their fleet to zero emission or battery electric vehicles and DNO engagement.
- EV Strategy and plans updated 8,335 hits online in one year.
- EV capacity map updated National Grid EV capacity map.
- 3,819 hits on EV capacity map.
- 230 downloads on 2022 Local Authority guide.

Over the past months, we have worked with Sia Partners, to analyse six scenarios from a prioritised list of 24 practical trials.

Each trial was aimed to support disabled drivers through the EV transition. In May and June we undertook in depth research and have now finalised our social return on investment modelling. The recommendation from the six scenarios was that NGED take forward practical trials for:

1. 1-1 EV referral support for disabled drivers

NGED will be happy to discuss your power requirements prior to you making an application, you can request a one-to-one surgery to help facilitate the connection - **National Grid - engage with us.**

2. The development of a data-driven EV infrastructure map

We have updated our EV capacity map. We expect this capacity map to be useful to all customers, but specifically local authority customers who might like to compare and contrast the capacity available in local areas whilst they plan the deployment of public charging infrastructure. 3,819 hits on EV capacity map. **National Grid - EV capacity map.**

Mobility as a Service offerings for EV drivers as part of existing PSR (Priority Services Register) services.

PSR Stakeholders have been clear that we must take a leading role in ensuring the net zero transition is fair and inclusive for customers in vulnerable situations - so no customer is left behind.

As part of our ongoing plan with PSR engagement, we have implemented a Smart Energy Action Plan, combining the insights gained from 'Smart and Fair?' and our longstanding fuel poverty programme, we collaborated with CSE (Customer Service

Excellence) to develop a pilot to offer customers a bespoke 'Smart Energy Action Plan' (SEAP), which could be rolled out at speed and significant scale across our existing partner network and/or new projects.

Focusing on customers who would typically need extra support (e.g. PSR customers referred via Power Up), SEAPs are tailored to individual circumstances and offer support across six key topics;

Personal circumstances of each customer assessed against:

smart meters
 digital skills
 digital technology
 energy literacy
 flexing usage
 renewables

For EV charging for mobility drivers, the plan is to have an in-depth review of the customer's personal situation, priorities and objectives, how this impacts their participation in the smart energy transition, and discussion of all the smart energy offers or products that might be appropriate to them. (e.g. basic smart controls, smart heating, time of use tariffs, electric vehicles, energy storage, options with renewables and optimisation).







Metered Demand

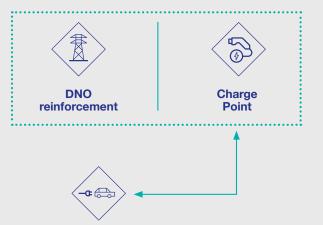


05 EV charging mobility

EV charging infrastructure installation

The DNO (Distribution Network Operator) needs to be properly engaged and consulted to coordinate and facilitate the connection of charge points to the network.

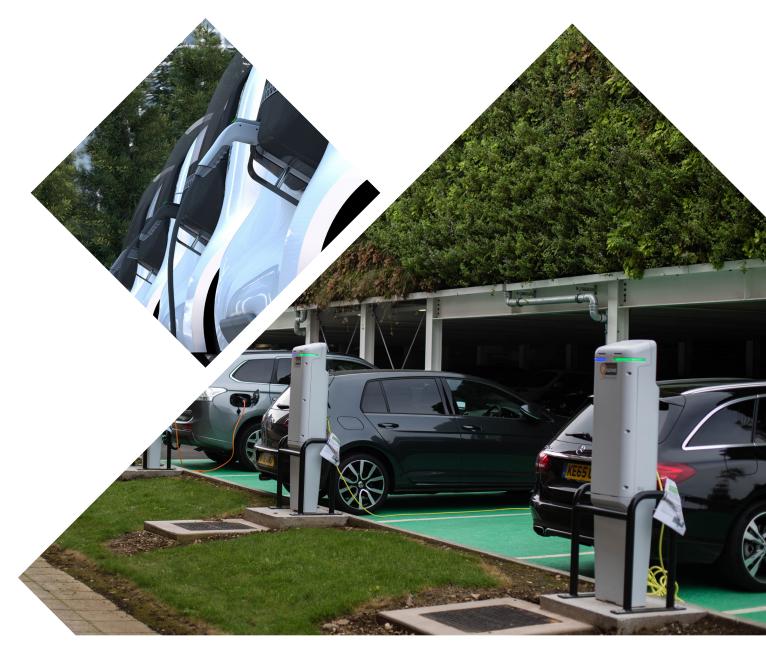
The DNO (Distribution Network Operator) needs to know the size of the required connection characteristics to help ensure the local low voltage and medium voltage network have sufficient capacity and are designed to prevent issues for other local electricity users.



We all need to recognise that people are on different stages on the journey to net zero, so efforts need to be tailored to moving them to the next step along.

It's all about meeting users where they are and helping them as appropriate.

Charity stakeholder customer vulnerability workshop





Electric heating online portal

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
It would be great to have improved visibility of upcoming changes to policies and standards, as it takes time to get equipment manufactured. Access to policy and specification documents needs to be made easier.	Identify and implement any improvements to existing guidance to improve consistency, transparency and fair application of electric heating. We will develop an online knowledge base for our staff, installers and electrical contractors with practical guidance and technical information on a electric heating portal.	Review existing guidance - end July 2022. Implement online knowledge base - end Dec 2022.	UMS MD DER ICP	Q4 Dec 2022

Outcomes

- Low Carbon Heating Strategy updated and published alongside a short form version in December 2022 Our most ambitious to date.
- **National Grid Low Carbon Heating.**
- 759 hits on Low Carbon Heating web page.
- 189 downloads on Low Carbon Heating Strategy.

The Low Carbon Heating Strategy review was completed in July 2022 and the new Low Carbon Heating Strategy was completed in December 2022. It lays the foundations for the decarbonisation of domestic heating by recognising homeowners face a range of heating options, and should not have their choices limited by constraints on the network.

NGED has launched an updated Low Carbon Heating Strategy and it's the most ambitious yet, including technologies that are not yet widely seen in UK homes.

Explaining the Low Carbon Heating Strategy, System Development Manager Paul Jewell says:

"This is our most comprehensive strategy yet and details how NGED will play a formative role in decarbonising the UK's domestic heating by accounting for the various network connections needed for not only heat pumps but district heating networks, thermal storage and hydrogen, to name just a few.

"While insulation measures are crucial for decarbonising the UK's housing stock, the efficiency of Low Carbon Technologies relies on network operators like NGED and our ability to map homeowners' future demand patterns, connect LCT (Low Carbon Technology) in near real-time and reinforce the electricity network. This is how we will pave the way for reducing the carbon footprint of our homes and ultimately reach net zero by 2050."

In line with NGED's RIIO-ED2 Business Plan, the strategy means creating a network that is flexible, resilient and ready ahead of need so customers can connect LCTs (Low Carbon Technologies) quickly and affordably without capacity being a barrier.

The updated document details how NGED will pave the way for the large scale connection of heat pumps by installing larger cable assets on new build substations.

Its use of innovative solutions to allow for faster and more efficient heat pump connections will help reach the government's goal of 600,000 heat pump connections a year by 2028. NGED is projecting that it will connect over 628,000 heat pumps across its network during the next price control period in 2023-28.

The strategy also touches on technologies not yet widely seen in UK homes including thermal storage, combined heat and power, hydrogen and solar district heating plants. NGED foresees that all these technologies will play a role in the future of UK's domestic heating.

By taking these steps, NGED is putting itself at the forefront of LCTs (Low Carbon Technologies) and as an enabler of heat decarbonisation in all its forms by avoiding the need for expensive network reinforcements, down the line.





Communication

07 Customer portal

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Being able to check your application progress is a positive thing, using a portal is a good idea for certain kinds of customer that are more often that not a one off interaction. An ongoing portal of advice and conversation would be great.	To develop a web based customer portal for an end to end scheme progression during the application process, through to delivery and connection. Initially for our smaller customers (1-4/69kVA), to establish a quality service for our customers before releasing to the larger customers. Following the survey, feedback and trial from last years ICE (Incentive on Connections Engagement) action 7- Enquiry Tracker for non-ICPs (Independent Connection Providers). We will enable all major customers to have access to the tracker, and to further monitor feedback.	85% positive feedback from our customers.	UMS MD DER ICP	Q1 Mar 2023

Outcomes

- Went live on the NGED connections website connections.nationalgrid.co.uk/get-connected/new-connection/14-properties
- 848 Internal staff User Application Testing (UAT) 95% positive feedback.
- External customer testing went to 21 customers 13/21 satisfied.

Customer portal - Delivering our Digitalisation Strategy

We have developed the first phase of a web based customer portal for an end to end scheme progression during the application process, through to acceptance and connection. This action was following the survey, feedback and trial from last year's ICÉ action 7- Enquiry Tracker for non-ICPs (Independent Connection Providers). To enable all major customers to have access to the tracker, and to further monitor feedback.

Enquiry Tracker benefits

- Customers can upload relevant documents where required as minimum information on the application to our database.
- Our staff (Planners/Teams) can request additional information for an application directly from our database to the Customers enquiry in the Enquiry Tracker web portal.
- Customers can view the progress of their enquiry and enquiry timeline (this timeline is bespoke and only include "customer relevant" prompts).
- Our database can now load documents, linked to prompts, onto the Enquiry Tracker web portal
- Customers can upload documents, linked to prompts, directly to database Docs for NGED review.

What is the Customer portal?

The customer portal looks to begin the transition of all connection's services being provided in a true online experience, where customers can access their account information, view their order/request history, and make updates to their personal information. Also, track the progress of their application(s) through to delivery and connection via the website. The portal will also provide customers with the ability to place orders and track the status of their orders and directly contact NGED employees.

This first phase will focus on the 1-4 <69kVA application, as there is already a clear user journey to this service, and it will impact the largest number of customers, therefore bringing the most value.

Although these customers are typically 'one time transaction' users, there is a lot of value to be added by allowing them to track the progress of their application online, improving the customer experience.

The portal will build upon the technology used within the Enquiry Tracker, which allows the website to communicate with NGED's internal CROWN system. There will also be an awareness within the development that we are laying the foundations for all connection's services to be delivered in this manner in the future.

Overall the customer facing side looks great and will be good when this can be expanded and Low Carbon Technology (LCT) added. Online portal works really well on a mobile phone which is great.

Internal Testing Planner from Birmingham

This is going to be a great system for our customers - really interactive.

Internal Testing Team Manager, Contact Centre

Good application but provide a consistent experience across all devices so that people using the site on their mobile phone will get the same level of service as those on desktop.

External customer feedback











Communication

Interactive map

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Data is critical to everybody in terms of making decisions. It's really essential that they have a centralised mapping functionality that is interactive for customers. This will save us time and help with our customer experience.	To engage with our stakeholders to understand the digital customer journey cases for which they would require an online mapping tool, and develop a new solution that can empower them to realise those journeys.	Completion of Stakeholder engagement.	UMS MD DER ICP	Q1 Mar 2023

Outcomes



160 stakeholders engaged.

Stakeholder survey completed in July 2022.

The Next Generation Maps project got underway. All customer enquiries relating to our existing mapping solutions have been reviewed, an internal workshops as well as 10 key stakeholder interviews took place, and a wider stakeholder survey was completed on 22nd July. In addition to this, a data structure has been established and work has initiated to create a Proof of Concept (PoC) automated data refresh process.

Software development for phase one was completed in November 2022, and we are currently working on data process automation which will transport data from our asset management and geographic information systems onto a staging platform where it will be accessible by our stakeholders.

Following a successful stakeholder engagement survey regarding interactive mapping, the outcome of which was comprehensive analysis.

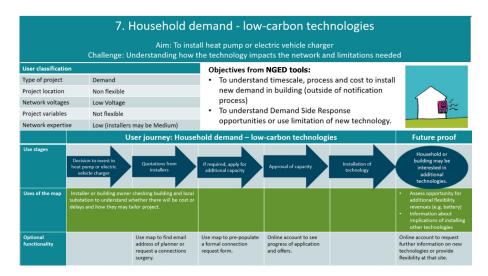
This has in-turn been translated into development tranches for our interactive map. We expect to launch the new mapping tool in May of this year.

"This could include various results such as 'Capacity available'/'Insufficient capacity' and 'no plans to upgrade'/'No but upgrades will change this (with details of planned upgrades & how to get in the queue)'/'Yes but subject to Active Network Management'/'Maybe depending on whether accepted offers get built out..."

Quote from community energy sector

"[I would like to view] authorised supply capacity for specific sites and the maximum this could be increased to based on existing infrastructure and local capacity.

Quote from commercial new demand



"[I use them] to locate NGED assets near subject properties to try and estimate extent of works that may be required for upgrades/new supplies.'

Quotes from commercial new demand

"Knowing the amount of low carbon technologies connected at a particular substation would be helpful. As well as knowing which property is connected to which substation. Colour coordinated or something to show what is linked to what." Quotes from heat pump provider and from heat data consultant

On strategic energy planning:

"We like to use the maps for understanding what works are needed to improve the capacity in the area - Adding NGED's intelligence about what the data means e.g. why is there a constraint. In particular, understanding the scale of works needed to enable x y and z scenario - Layer in new developments, retrofit programmes, net zero to understand current and future capacity. What does headroom means in terms of scenarios? Where do we need to focus our discussions?"

Quote from local authorities

"Downloadable shape files - showing area supplied by each substation - we want to know which homes are supplied from which substation and what the constraints on them are for new demand technology."

Quotes from consultant and researcher











Process improvement

Domestic Low Carbon Technology (LCT) acceptance web-based

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Make it as easy as possible for customers to connect LCTs (Low Carbon Technologies) and reduce times to provide approval to install LCT equipment.	Provide a web-based service for assessing requests for additional load at domestic premises as a result of LCT (Low Carbon Technology) installations, facilitating a same day response to approve connections where predetermined load acceptance criteria are met. Develop a mobile app functionality to automate the provision of LCT application process.	Positive feedback from stakeholders on the improvements completed.	UMS MD DER ICP	Q4 Dec 2022 Extended from ICE 2021/22 Plan action 23

Outcomes

- EV Domestic Self-serve applications went live on our website on 7th December 2022.
- 1,074 customers, in first four months alone, to benefit from connections instant approval.
- Instantly approve 57% of online EV applications since December launch.
- National Grid LCT EV Charge Point Application.
- 4,158 Web page views.

Domestic EV connections

Our new self serve connections website is now live, making it possible to apply online for an EV (Electric Vehicle) charge point connection and get an instant response for the first time.

The automated service is part of our pledge to speed up the connections process and accelerate the UK's journey to decarbonisation.

EV drivers and charge point installers can apply online in just 10 – 15 minutes to request a new EV charge point connection at domestic or commercial premises. In most cases, applications will get instant approval. Any work necessary to enable a new connection will be carried out retrospectively.

Penny Carolan, Connections Strategy Engineer, said:

"This service replaces our previous system where applicants were asked to fill in quite a lengthy form and had to wait 24 hours for a response.

"The new website will speed up the connections process for everyone and means that installers get an instant response to their applications. We've also made the process as user friendly as possible for all customers, with lots of supporting information.'

The form can also be used to notify us where an EV charge-point installation has already taken place.

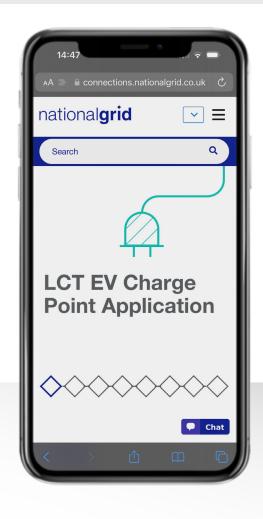
We've pledged that our network will never be a barrier to the connection of low carbon technologies which are key to achieving the UK's net zero targets.

Steps to introduce a similar self serve process to speed up the connection of heat pumps and solar panels are already underway. To enhance the domestic EV self serve, we are due to go live in July with the domestic EV self serve bulk uploads for EV installers.

Domestic connected EV charge points: 1st April 22 – 31st March 23 – 19,719

Domestic EV applications: 1st April 22 - 31st March 23 - 25,455

Online applications have already enabled us to save 153 hours, compared to us manually processing these applications.



Process improvement

Connection Agreement reduction of Authorised Supply Capacity (ASC)

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
It makes our lives a lot easier to not have to pick up the phone.	Develop a process for reduction of Authorised Supply Capacity (ASC) in the Connection agreement process to be available as an online application.	Completion of online application.	UMS MD DER 109	Q4 Dec 2022

Outcomes

- Completion of Online application connections.nationalgrid.co.uk/capacity-reduction-form
- 37 hits from go live in December 2022.

We have developed and released an online application form to provide Customers with a digital option to request a reduction in Authorised Supply Capacity.

The form is available on our website via the 'Make a change' toolbar or via the following link; https://connections.nationalgrid.co.uk/capacity-reduction-form

Metrics indicate Customers are utilising this new function. We will continue to promote its availability.

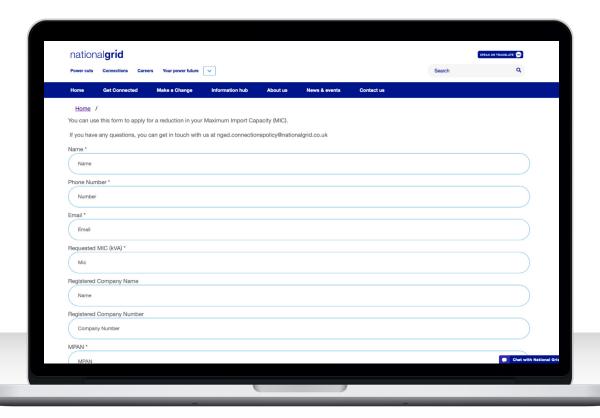
What does reduction in capacity mean?

By applying for a reduction in capacity, you can reduce your Maximum Import Capacity (MIC). This is also known as Available Supply Capacity (ASC) or Maximum Power Requirement (MPR) and measures the maximum amount of power a property can use from our network in kilo-Volt-Amps (kVA) at any one time.

If you use less than this maximum capacity, you can apply for this to be reduced which might save you money.

Maximum Export Capacity (MEC) refers to the maximum capacity you can export to the network. Both the MEC and MIC are agreed at the time of initial connection and may vary after that.

It does not cost to reduce your capacity. This is because reducing your capacity does not require any physical works - it is carried out by a contractual agreement.





Process improvement

Interactive video solutions

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
We are seeing an increase in all applications, and the systems you have in place aren't up to the task for what is coming in the future.	Investigate the development of an interactive video call option to replace some site visits to ensure that the customer experience is faster, safer, easier and more efficient. To enable our staff to give a new customer experience that enables our connections staff to focus on the customer needs and requirements.	Completion of interactive video solution.	UMS MD DER ICP	Q4 Dec 2022

Outcomes

- Over 50 virtual solutions tested the application internally.
- Positive feedback received.
- Completion of interactive solution.

We are seeing an increase in all connection applications, and the systems we have in place need to evolve to help the task for what is coming in the future. We require a full comprehensive digital customer experience to enable the customer journey to be enhanced.

Following stakeholder feedback for our ICE (Incentive on Connections Engagement) regulatory compliance for RIIO-ED1. The smaller connections 1-4 properties are 76% of our overall applications.

To ensure the customer has an enhanced journey we have investigated and internally trialled virtual site visits, this will give better transparency to the customer in a timed appointment, providing a faster response and a frictionless experience. At present the site visits can be frustrating for the customer and our staff, and for both parties if an abortive visits occurs for any reason.

To assist with the customer journey experience, we believe the virtual interactive video will give;

- enhancement
- ease
- speed
- · communication.

We have trialled two virtual audit providers and we are currently in the process of procuring a collaborative partner. The virtual site visit trial was very well received and we could see from the positive feedback that the customer experience, financial benefits and customer satisfaction would be a firm business decision.

To enhance our customer experience, to meet and exceed the expectations of our customers during all interactions with our company. To enhance the customer satisfaction survey for RIIO-ED2.

What a Virtual call can do

Take Photos

Take high-resolution photos embedded with depth and scale information. The virtual tool smart camera scans and collects key details automatically.

Take notes

Take notes and edit photos during a virtual call from the menu. Access the notes after a call on the call details page.

Use a Marker

Draw in the customer's space to outline areas or indicate movements to your customer.

Use a Laser Pointer

Point and gesture by moving the red laser pointer around the customer's space.

Text Recognition

Text Recognition and read to automatically capture the make, model and serial numbers from a product plate.

GPS Location

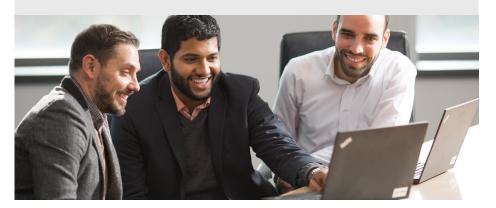
When our customer approves the GPS request, you receive their location and estimated street address.

Review Call Details

Update and edit the call details as needed. Comment and add notes during the call or after it's complete.

Review Video

Virtual call records the entire video call so we can replay, review, and download the details later.

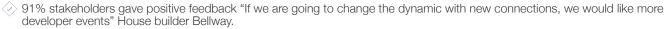




12 Developer engagement event

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
Please keep us informed of progress. We are most grateful to be kept in touch with.	Hold an event in spring 2023 to brief a wide spectrum of developer/builder stakeholders on NGED's connection strategies, ED2 and the net zero future. Encourage round table discussion to generate feedback and potentially develop further initiatives.	85% positive feedback from housing developer/ builder customer event.	IMS MD DER ICP	Q1 Mar 2023

Outcomes



First NGED Developer and house builder event held.

NGED (National Grid Electricity Distribution) hosted a Developer forum virtually to seek feedback from stakeholders on the following topics:

- NGED business update and connections
- Access and forward looking charges significant code review
- Enabling future connections and managing requested capacity
- Open questions and feedback

How, NGED the electricity network can support the growth in housing, infrastructure and commercial developments; and how different sectors can work better together.

Importantly, one of the objectives of the event was to encourage attendees to ask questions and give feedback with each other and with NGED personnel.

In order to do this, stakeholders were given an opportunity following each session to ask questions via the virtual chat and to ask questions verbally.

In addition, there was a plenary session at the end of the presentations, the purpose of which was to identify stakeholder's further requirements and how we can work together more effectively to address some of the challenges facing the electricity network.

Personally, events of this type are really helpful, not just because of the information provided, but also because of the networking opportunities. Newsletters are also really useful, as they contain updates about specific issues that people are experiencing and give a sense of reassurance that things are progressing along.

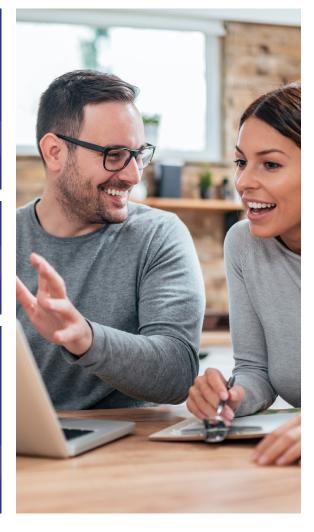
Housing Developer

I agree that the two-way information flow is great, as it paints an even more comprehensive picture about network solutions.

Housing Developer

The information needs are quite different depending on where you are in the application process. During the pre-acceptance phase, you want to know about potential capacity and queues, and post-acceptance, you want to know about statement of works and construction. There are two different worlds of thought at play here.

Housing Developer











13 Customer engagement report

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
I like the idea of each region having a specific contact point. That would provide a consistent approach.	Enhance the provision of named/ nominated lead customer relationship contact points for returning customers across all four NGED licence areas.	The provision of nominated NGED customer relationship leads/point of contact to customers.	UMS MD DER ICP	Q1 Mar 2023
The connections process is very good, but the correct point of contact can be tricky.	To provide nominated NGED customer relationship leads to customers.			

Outcomes



86 NGED Senior Management contacts.

5,747 stakeholders on our engagement database.

Establishing trust and rapport with stakeholders is essential for successful stakeholder management. We have achieve this by communicating regularly and proactively, listening actively and empathetically, delivering on agreements, and showing appreciation and recognition.

Keeping stakeholders informed of project status, progress, risks and issues is important, as is acknowledging their concerns and feedback promptly and effectively. Meeting deadlines and producing outputs that meet and exceed expectations has helped build trust and relationships.

NGED senior management are available for their contacts to answer business questions quickly and effectively, helping customers reach their goals by working closely with them.

Customer engagement is as and when the customer would like to, some customers require a quarterly meeting others as and when they have a requirement for their connection.

NGED instructed EQ Communications, a specialist stakeholder engagement consultancy, to independently facilitate a stakeholder database and to facilitate the type of stakeholder/customer.

We now have 5747 stakeholders on the database. Every effort has been made to faithfully record any feedback and stakeholder engagement requirement. In order to encourage truthfulness and open debate, within the workshops, webinars and forums, they have made the database of the type of organisation each stakeholder represents, to help contacting the right customer to our event schedule.

Several of our senior management stakeholder joined our CCSG (Customer Connections Steering Group) in 2023-24.

We also welcomed new members to the CCSG and Alison Sleightholm, Regulation and Corporate Director was pleased to be able to host all three sessions with new and existing members who have been invaluable in providing their time, expertise and support so that we can develop our businesses together. The discussions held with this group help us sharpen our focus on our priorities.





Community energy schemes

Stakeholder feedback	Our action	Measures of success	Connection areas	Target date
"Support a growth in community energy schemes by facilitating their access to available funding streams." Community energy group Connections workshop 2021	Publicise new case studies as they arise on our website and newsletter. Develop a process for innovation referrals and promote at events and community surgeries. Publish a guide to Network Innovation Allowance (NIA) projects for communities, to encourage community groups to come forward with projects, offering a digital call with network innovation engineers.	The provision of nominated NGED customer relationship leads/point of contact to customers.	UMS MD DER IOP	Q1 Mar 2023

Outcomes

- Community Funding for an installation to a school 19kW Solar panels.
- Community Energy Surgeries 32 Surgeries with 152 participants.
- Four Community Energy events 80 stakeholders.
- 40 Community energy dissemination events, discussing individual community energy projects 728 stakeholders.
- Uploaded on our Community Energy webpage in June 2022, a dedicated page for 'Getting finance for community energy'
 - National Grid News.
- Community Energy Video in February 2023 with 107 views Connect to National Grid YouTube.
- **National Grid Community Energy.**

Community Energy

As a distribution network operator, we are committed to accelerating net zero in communities across our four licence areas.

Finding funding to turn passion and great ideas into reality is one of the fundamental issues that every community energy group will face. We are committed to providing support every step of the way.

In 2021, nearly £12 million was secured for new renewable projects across he UK. More than £7 million was received by groups in England, with the Rural Community Energy Fund and local authorities being the main funders. The Welsh Government Energy Service was the principal source of funding in Wales but significant grants were also supplied by the Big Lottery Fund.

There are many different sources of funding, including:

- Government
- Local authorities
- Community shares/bonds
- Trusts
- Charitable foundations
- Innovation funds
- · Banks and other financial investors

Metered Demand

- Crowdfunding
- · Covid recovery funds

Community Energy England is a not-for-profit organisation representing the sector. Its website has a section dedicated to sources of funding, including a spreadsheet with details of the latest available funding channels.

Find out more here: Funding opportunities - Community Energy England Similarly, Community Energy Wales supports the low carbon transition at a local level in the principality. Discover funding opportunities in Wales here: Finance - Community Energy Wales.



Our engagement and action

We have developed a 'rural living laboratory' working in close partnership with a community in Gloucester to explore how the principles of our Social Contract can be realised at a local level to deliver the greatest benefits.

We created a working group of key regional stakeholders, including a local ecologist, school staff and governors and National Grid colleagues, who collaborated to test a holistic approach to Community sustainability, centred on a local secondary school – Rednock School.

Our Community Energy Engineer provided in-depth connections advice to enable the installation of a 19kW solar panel array, with funding from National Grid. We helped the school submit an application for a further 495kW of solar panels and battery storage, to support their long term sustainability goals.

If you require further information, we have produced with a collaboration with REGEN a 4 minute video to assist with Community Energy.

Connect to National Grid - YouTube









Community energy schemes



"Rednock School is pleased to play a part as a pilot project in National Grid's support for net zero communities.

Not only will we benefit from reduced energy bills and a more sustainable school environment but students are gaining the skills and understanding needed for 21st century living.

As an important part of the local community, the school will be helping to meet net zero challenges."

David Alexander Head Teacher, Rednock School





The plan going forward

2023/24 is the first year of the five year Business Plan period called RIIO-ED2. This stands for:

RIIO-ED2:

Revenue = Incentives + Innovation + Outputs (Electricity Distribution 2)

It is the regulatory framework introduced by Ofgem and is designed to drive clear outcomes and benefits for consumers, and provide companies with strong incentives to step up and meet the challenges of delivering a low carbon, sustainable energy sector.

As part of our overall Business plan, we have 6 individual strategies for RIIO-ED2, for connections we have our Major Connections Strategy it is key to delivering benefits for connections customers. We recognise that many of the benefits will be delivered through improved network information and flexible connection solutions.

Therefore, it is critical that our strategies are aligned and coordinated to meet our wider needs and aspirations, providing a foundation to develop solutions to meet the changing needs of the business and customers.

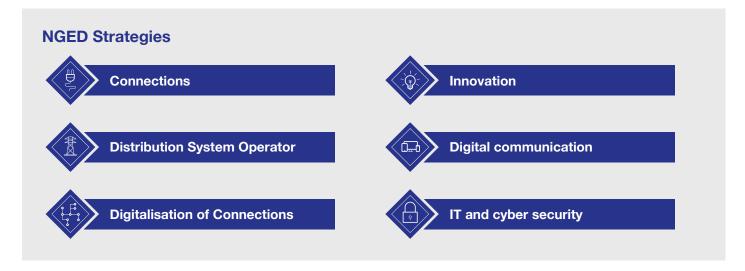
Our data and digitalisation team has a programme to improve the quality of available pre-application information by providing more granularity and combining separate sets of data into a centralised

mapping function. Improved data enables customers to make more informed decisions on where and how to connect to the distribution system.

Our Distribution System Operator Strategy has been developed with our connections customers at the forefront of our decision making process and by working together we will ensure that we widen the range and frequency of flexible alternatives to traditional reinforcement to facilitate quicker connections at a lower cost.

We will also use innovation to understand customer requirements for system access and to develop the solutions that are needed to support all of our customers.

Working with our community energy engineers, we will support community energy groups that have great ideas for innovation projects that can provide benefits to communities. This will also support our Social Contract and vulnerability commitments where we will roll out solutions proven in innovation.



We will continue to strengthen these links to shape and deliver effective connections solutions delivering tangible and measurable benefits for our customers.

The momentum generated in RIIO-ED1 is expected to be sustained thanks to the implementation of the Major Connections Strategy between now and 2028, which will improve our systems and processes in the RIIO-ED2 period. The resulting enhancements in customer service, connections digitalisation, and customer satisfaction will enable NGED to improve performance in line with stakeholders' expectations.



We measure success by getting the job done well first time. We are always striving to develop and achieve goals which are highly ambitious. We welcome opportunities and feedback to improve our connection service for our customers.

Kester Jones, Head of Connections