electricity north west

Bringing energy to your door

Flexible Services: The Year in Review Report 2023

January 2024

Looking back on our progress throughout 2023 to deliver a smarter, more flexible energy system

www.enwl.co.uk/flexibleservices

INTRODUCTION

Electricity North West Limited (ENWL) sees the use of flexibility services as a key Distribution System Operation (DSO) function and a vehicle for change, as it facilitates the North West's transition to net zero carbon. The rise in low carbon technologies will ultimately result in a lot more demand being placed on our network, and the cost of upgrading the network to meet this increased demand would mean higher bills for customers.

We are therefore trialling smarter, more affordable techniques to use the existing network more efficiently, which will reduce costs for all our electricity customers in the future. Some of the ways in which we can facilitate the extra demand associated with the transition to net zero whilst utilising our existing network is through the procurement of flexibility services and promotion of energy efficiency measures.

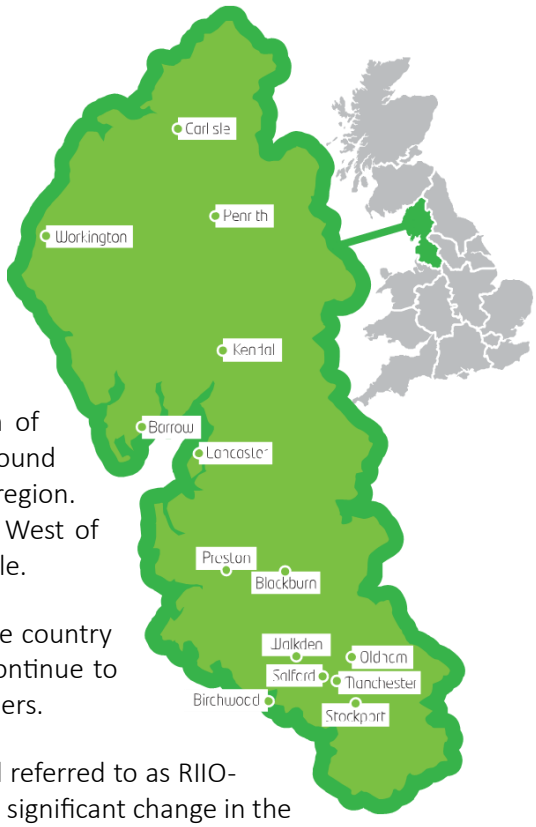
In our RIIO-ED2 business plan, we used Cost Benefit Analysis (CBA) to present how the use of flexibility services can be cost efficient for our customers. Using flexibility, we plan to deliver over £3.5 million of cost savings per year from 2023 to 2028 by avoiding or deferring conventional reinforcement. Over the course of 2023 we began delivering the exciting challenges we committed to in our Business Plan for RIIO-ED2. Details of our commitments can be found here, or for items relating specifically to our approach to distribution flexibility services, in Annex 02 – DSO transition.

Throughout ED2 we will continue to support our region's commitment to reaching net zero carbon in the North West, and firmly believe that both flexibility services and energy efficiency play a huge part in reaching this goal. They are complementary and their combined impact will be beneficial to the network and save money for our customers. We are proud to have opened our flexibility service tender process to energy efficiency schemes, facilitating this change and helping to finance our net zero goals.

We recently issued our 13th tender for flexible services and our annual Year in Review report reflects our commitment to standardisation, accessibility, and transparency in this fast-developing new sector.

This year's report is divided into four sections: 1) Data, Digitalisation and Systems, 2) Engagement and Signposting, 3) Procurement and 4) Industry Collaboration. Incorporating the commitments set out in the 2021 Smart Systems & Flexibility Plan published by BEIS and Ofgem, this document outlines our progress throughout 2023 and our contribution to building a smart and flexible energy system that can deliver significant benefits for consumers, the system, and the wider economy whilst lowering carbon emissions.

ABOUT ELECTRICITY NORTH WEST



Electricity North West is one of 14 Distribution Network Operators (DNOs) in the UK regulated by Ofgem. We operate the local electricity network and distribute electricity, mainly from the National Grid, to 2.4 million homes and businesses in the North West.

We are responsible for maintaining and upgrading 13,000 km of overhead power lines, more than 44,000 km of underground electricity cables and nearly 500 major substations across the region. We supply electricity to the diverse communities in the North West of England which extends from Macclesfield all the way up to Carlisle.

Our network in the North West is one of the most reliable in the country and we are investing £1.7bn between 2023-28 to ensure we continue to deliver an excellent, safe and affordable service to all our customers.

On 1 April 2023, all UK DNOs entered a new price control period referred to as RIIO-ED2, which will run from 2023-28. During this period, we will see significant change in the way electricity is generated, consumed and stored, driving innovation across the whole energy system both now and into the future.

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DATA, DIGITILISATION & SYSTEMS

Open and accessible data is a central theme across our commitments under our ED2 Business Plan, the Open Networks Project and the Smart Systems and Flexibility Plan. Stakeholder engagement has been key to this, and we continue to consult our stakeholders at every opportunity on the usefulness of information and whether anything further can be provided.

Operational Data Sharing

We are committed to making our requirements as transparent as possible, so in 2023 we published our flexible services data on Electricity North West's new Open Data Portal, which launched in November 2022.

Users of the Portal were already able to access the Embedded Capacity Register and the Network Capacity Headroom Data, in a multitude of different data formats. In addition, Flexible Services data hosted on the portal can be downloaded in a range of common industry standard formats including: API, KML, CSV, JSON, Shapefile, and XLSX. This allows users to incorporate the data into their own modelling and mapping systems and overlay other data sets they may already have including their own asset maps.

In September 2023, we were also proud to be the first DNO to publish our Ofgem Distribution Flexibility Procurement Report data on the open data portal, including our previously tendered and contracted services. We will continue to update this data every six months in line with the close of our bi-annual tender rounds.

Whole System Collaboration

The team are actively engaged in a number of industry wide working groups looking to increase the volume, granularity, accuracy, and frequency of data sharing activities with different stakeholder groups to unlock greater network benefits. Key benefits of enhanced data sharing relate to the co-ordination and stacking of flexibility services contracts to enable a *flexibility first* approach to network development. In particular, we are focusing on the data transfers between DNOs and the ESO to help increase the ability for service stacking, avoid service conflicts, and co-ordinated procurement of flexible services to maximise revenue opportunities for Flexible Services Providers (FSPs). Throughout the year the team have provided ongoing dedicated support to the following working groups within the Energy Networks Association's (ENA) Open Network Project (ONP) looking at data sharing:

ENA ONP – Operational Data Sharing Technical Working Group

ENA ONP – Primacy Technical Working Group

ESO – DER Visibility Working Group

Website updates

Our network is changing to meet the evolving needs of our customers, accommodate the shift towards decentralised energy generation, and support decarbonisation. Throughout 2023 we remained committed to digitalising our business to remain efficient, drive innovation and increase transparency. Take a look at our data portal and digitisation strategy.

To reflect this transition to a smart and efficient energy system, we have updated the 'net zero' section of the website to 'Future Energy'. In this section you can find information on:

- Data and Digitalisation
- Facilitating Net Zero
- Distribution System Operation (DSO)
- Flexibility Services
- Community and Local Energy
- Innovation

Our Flexible Services portal is now called the 'Flexibility Hub': The pages that sit in this section have not changed but please keep in mind that some older links to content on these pages may no longer work due to the change to the URLs in this section.

In 2023 we developed and published two new documents on our website to assist stakeholders when taking part in our tenders:

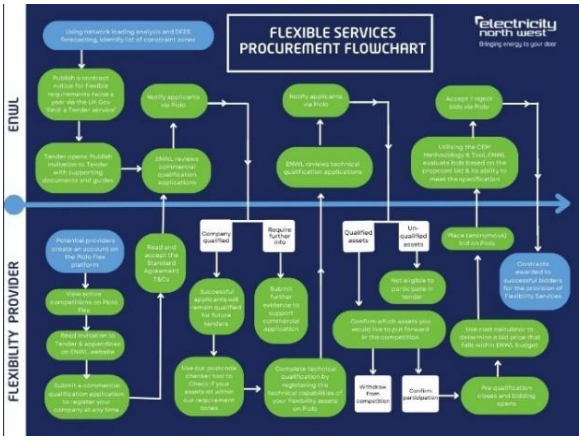
- **Commercial Qualification Criteria document**

We carry out commercial checks as part of the pre-qualification process to verify that participants of the flexible services tender are genuine and reputable businesses who will have the required financial and technical capabilities to deliver on contracts if awarded. This document sets out our commercial requirements for businesses who submit a commercial qualification application to participate in our flexibility tenders, along with example answers using a fictitious company, and the pass/fail criteria that these questions will be marked against.

- **Procurement Process Flow Chart**

This new flowchart provides a clear overview of the entire process of procuring flexibility services and the steps involved for both Flexibility Service Providers and Electricity North West from forecasting requirements to signing contracts and everything in between.

These documents can be found in the Helpful Guides section of our document library and on the latest tender page.



Energy Efficiency FAQs

Last year we set out to raise awareness of the benefits of participating in flexibility markets via the installation of energy efficiency measures. This service allows system users to earn revenue from carrying out long term energy efficiency activities whilst assuring Electricity North West that the site demand will decrease, deferring the need for reinforcement work within the area since average consumption is reduced and/or shifted away from the peak demand creating network capacity.

This year we wanted to continue this momentum, and engagement activities with Flexibility Service Providers throughout 2023 revealed an increased interest in this service, so we developed a

dedicated section of frequently asked questions on our new FAQs page to assist potential providers with any queries relating to the provision of flexibility services to the network via the installation of energy efficiency measures. Other FAQ sections featured on this new page include our most frequently asked technical and general questions relating to flexibility services.

ENGAGEMENT & SIGNPOSTING

In-person events

Flex Forum: Reducing Barriers in Distribution Flexibility Markets

Following the success of our first collaborative event with Piclo in Manchester in 2022, we held another cross-industry event alongside Piclo, UKPN, SPEN and Northern Powergrid in London on 24 May 2023. *Flex Forum: Reducing barriers in distribution flexibility markets* event was a fully booked event comprised of a series of workshops, panel discussions and Q&A sessions with guest speakers from Ofgem, Energy UK, the Association for Decentralised Energy (ADE), as well as market leading flexibility providers.

This is an annual workshop that focuses on engaging with Flexibility Service Providers from across the country to better understand their needs and obstacles they face when submitting a tender response. These in-person workshops are free to attend, and are invaluable for gathering feedback which we will continue to use to simplify our processes.

This year's open forum stimulated some really insightful conversations around the future of the UK flexibility market and how we can all work together to continue opening up this space to allow flexibility providers to access all markets, all of the time. A summary of the event can be found on Piclo's website.

Future Energy: System Operation in the North event

In October, colleagues from our Distribution System Operation (DSO) team hosted an event in Manchester to support the company's DSO activities. This all-day event was designed to gather feedback from stakeholders and demonstrate the company's commitment to providing our customers a reliable and sustainable energy supply at the lowest cost. The event was well-received, scoring 4.25 out of 5 for usefulness. Stakeholders had the option to attend in person or join online- a total of 31 external stakeholders attended in-person and 22 joined online. Stakeholders appreciated the opportunity to engage with the company and share their ideas. The event focused on five core themes:

- Responding to your needs
- Engaging our local stakeholders
- Powering your future
- Investing where you need it

The event also showcased Electricity North West's dedication to its flexibility-first approach, world-class forecasting techniques and whole system outcomes. Based on feedback, we will provide more networking opportunities and focus on topics suggested by our stakeholders at our future DSO events.

Online engagement

Webinars

We held two *'DSO Functions: DFES, Data and Flexible Services'* webinars in 2023. These webinars were held in April and November, in line with the launch of our bi-annual tenders. These free events are

aimed at professionals in the energy industry who are looking to hear the latest from Electricity North West on the data we publish and how it can be used to help inform potential connections, operations and trades on the network.

Covering topics such as Distribution Future Electricity Scenarios (DFES), Network Development Plan (NDP), our new Open Data Portal, and our latest Flexible Services requirements, these webinars explored each area in detail and gave stakeholders the opportunity to ask our experts their questions.

April webinar: Held on 20 April. We had our biggest turnout for a DSO webinar so far with 64 external stakeholders joining on the day. Engagement was high throughout the event with lots of questions being posed to the team via chat. 64% found the session 'very useful', 31% found it 'somewhat useful' and 2% were impartial.

November webinar: Held on 8 November. 62 attendees. 92% found it very useful

> "ENWL's webinar on Wednesday was an excellent user guide for DSO function, availability of data and how stakeholders can make use of these data sets."

Following each event including webinars and in-person workshops, we ensure that recordings, slides, event summaries and feedback are saved on our engagement page as a resource for potential future providers. These materials act as useful guides for our stakeholders, with easy-to-follow slides containing links to more resources and contact information. We endeavour to make our events as easy as possible for our customers to access at a time that is convenient for them.

Local authority bilaterals

In September 2023, our team presented at bi-lateral meetings with eleven out of the thirty-five local authorities from across the North West. The purpose of these meetings was to provide an overview of forecasting and network planning data available within DFES and NDP to support LAEP and local plans with an introduction to flexibility services provided in the second half. With local authorities owning a large portion of assets located in our requirement zones, we saw this as an ideal opportunity to promote this market and explain the steps involved to participate. The flexibility presentations were positively received with particular interest shown in Energy Efficiency Measures. We followed up with all local authorities in October to help build relationships with key stakeholders within their organisations and provide a point of contact for them should they wish to participate in future tenders.

Online forums

To ensure we are delivering enhanced DSO functionality which is at the heart of a smart and flexible distribution network able to evolve to the changing ways customers produce and consume energy, this year we introduced DSO Discussions: Bi-monthly forums where topics relating to market development, and network operation are discussed and evaluated in a more informal and equal atmosphere to stimulate conversations and feedback from industry stakeholders. Each session focuses on a different topic relating to DSO, all of which are available to book via our events page. Unlike our bi-annual DSO Functions webinars, these online sessions are not recorded to provide a safe space for stakeholders to share their views and feedback with our team and fellow forum stakeholders. Topics covered in 2023 include: Flexible Services, Digitalisation & data, DFES, Active Network Management (ANM) and Flexible Connections.

One to One discussions

We hosted a total of 12 complimentary one-to-one online discussions throughout 2023 to assist potential providers with the process of providing flexibility to the Electricity North West network. Providers were given the opportunity to pose specific questions to the team and gather the information required to successfully participate. These sessions are available to book on our website and via the link in our newsletters.

In 2023 we recognised the value of one-to-one conversations to gather feedback so as part of this year's consultation, we held six feedback sessions with participating providers to hear about their experience of taking part in our tenders to understand their pain points throughout the process and ensure we continue opening up more opportunities for both local and national players to participate in these growing markets. These sessions were not only an effective and efficient method of incorporating our stakeholder's views into our approach to procuring flexibility, but provided an opportunity for participants to pose questions to our team and receive on the spot answers which they said was very helpful.

Industry events

Our flexible services team continued to attend regular collaborative industry forums and challenge groups throughout the year with Ofgem, Greater Manchester Combined Authority, Energy Networks Association, National Grid ESO, WSP, Flex Assure and Piclo. We were also delighted to have the opportunity to attend, exhibit and present at a number of large industry events held across the country including: The Distributed Energy Show in Telford, Energy Xtra in Chester, GMCA Green Summit in Salford and the Energy Innovation Summit in Liverpool. More information including a full list of all industry events attended in 2023 will be available within our 2024 Distribution Flexibility Procurement Report due for publication in March.

Consultation

We're always looking at ways to develop efficient and effective flexibility processes; from signposting our requirements to dispatching flexible services and everything in between. We launched our Summer 2023 Flexibility Services Consultation in July for a period of two months to engage with our stakeholders to collaboratively shape our priorities and approach to procuring flexibility services. The aim of this consultation was to ensure we continue demonstrating accessibility and simplicity throughout our flexibility processes, with a key focus on data sharing, engagement, technical requirements and contracting.

As we begin our journey through RIIO-ED2, we wanted to hear our stakeholder's views of how we can best support the flexibility services market in Great Britain; from how we share our data and engage with stakeholders, to how we can best facilitate the transition to a framework agreement. summarises the feedback we received and highlights the initial steps we plan to take in response to that feedback.

We received 19 responses from providers with an even representation from aggregators, generator developers, suppliers, consultants and community energy groups. Responses were collected via our consultation webinar, online form, email and 1-2-1 discussions.

Key stakeholder feedback received

- Request for further industry standardisation of: Products, API interfaces, platforms, availability hours
- Too many variations of processes, technical requirements, contracting across all the DNOs
- Lowering minimum thresholds to allow smaller players to participate
- Common contract: ability to adjust details for longer term requirements if circumstances change and mix of both short and long term contracts is preferable
- More information on Energy Efficiency Measures and having it as a separate product
- Barriers to entry: Minute by minute metering, penalties, location of requirements and lack of revenue certainty

Our initial commitments

- Lower minimum threshold for participation from 50kW to 10kW
- Remove annual commercial qualification (DPS) requirement on Piclo
- We will now also accept alternative metering granularity as part of our tenders such as half hourly metering granularity where minute by minute is not possible
- Adopt new Energy Efficiency product by Spring 2024 in line with the rest of the industry instead of procuring this service via the other flexibility products. This will improve clarity of technical requirements such as baselining and payment mechanisms. We will also produce helpful guides to introduce the new selection of streamlined products as defined by the Open Networks Project
- Adopt new common framework agreement V3 next year for longer term requirements by allowing providers to update their capacity/bid price annually if/when circumstances change
- Continue working with the rest of the industry to design a common API interface

Direct engagement

We have incorporated direct engagement with businesses located in our requirement zones as part of our Business as Usual (BAU) activities. We are always looking at ways to improve our engagement in more rural areas of our region to ensure that all eligible participants have equal opportunity to get involved in the flexibility market. This engagement is carried out in line with the launch of our tenders to promote the benefits and revenue potential to asset owners located in our constraint management zones. We will continue this engagement activity as and when requirement zones change to encourage participation from both local and national players.

Reporting

We are committed to being open and transparent when deciding how and why flexibility services have been procured to meet network needs. Our reports detail our decision-making criteria to explain how we choose the most cost-effective solution for consumers, while meeting the needs of all customers, the system and the networks.

Within our 2023 procurement exercises we continued to utilise the CEM tool to calculate a ceiling price, which we published alongside the site requirements within our flexible services tenders. This provides participants the opportunity to see the maximum value which we are prepared to offer per annum for provision of the required services and provides consistency as this same data will be used to evaluate Providers' bids. Above this ceiling price the CEM tool has calculated that an alternative to the flexible service would be more economical or efficient to implement.

In addition to publishing the CEM Tool on our website, we also publish a full set of the CEM Losses Tool used to evaluate bids for each tender alongside a report detailing the results of each tender to provide clarity on the bids which were accepted and rejected, as well as showing the contract lengths and the bid price accepted. This information delivers transparency in the procurement process as well as giving future market participants an insight into the potential values of revenue they could expect to achieve by participating. Both documents are available to view on our previous requirements page.

Throughout the year we identified some confusion amongst flexibility providers regarding the distribution of ceiling prices across each requirement zone. To further facilitate understanding of this and the difference in cost of traditional reinforcement compared to flexibility services options, this year we started including the reinforcement cost within our tender communications activities. We hope this helps potential providers to understand the logic behind the CEM Tool and how budgets vary across different areas of our region:

'Flexibility services are procured as an alternative to traditional network reinforcements. This latest tender could save bill payers over £28m by deferring costly reinforcement work.'

We published our third annual Ofgem Distribution Flexibility Procurement Statement in March 2023 and our second Procurement Report in April 2023. The statement outlines Electricity North West's plans for procuring Flexible Services for the upcoming regulatory year and reflects our approach for supporting the Flexibility market in Great Britain as we cooperate with other Distribution Network Operators (DNOs) to deliver simplicity, accessibility and transparency throughout our processes in this fast-developing new sector. This statement follows a consistent format across DNO's providing a useful guide detailing how we procure, engage, evaluate flexible services. The Report details the outcomes of the services procured and dispatched in the previous regulatory year. As part of our commitment to provide as much data as possible in an open and accessible manner, this year we were proud to be the first DNO to publish the data from this report on our new Open Data Portal, allowing stakeholders to view the report in a range of formats with the ability to filter and analyse the data via a wide selection of chart types or API.

Signposting

In addition to signposting our requirements on our website and on the Piclo Flex platform, we communicated our requirements via the following channels to highlight where and when opportunities exist for flexibility services to play a role in ensuring a safe and reliable supply of energy for customers.

- To all 336 members of our flexibility mailing list via email. Sign up here
- ENWL Open Data Portal
- On the ENA flexibility in Great Britain webpage
- Press releases
- ENWL Flexibility Services and wider DSO webinars. Register for future events here
- Electricity North West social media platforms: LinkedIn (24k followers) and Facebook (26k followers)
- Included in our ENWL Stakeholder and Community Energy newsletters and events
- Directly to customers in requirement zones
- In-person events: ENWL hosted DSO events, hosting cross-industry collaborative events, exhibiting and presenting at industry events
- Bilateral meetings with Local Authorities
- Promotion via partner organisations such as: Cumbria Tourism, and Piclo
- ENWL Network Development Plan: A useful tool for flexibility providers as it shows where on the network there is insufficient capacity (for new connections and general load growth) and where flexibility services may be required in the short, medium and long term. It also provides information on how we intend to create capacity over the next ten years covering the ED2 and ED3 periods. Feedback from webinars revealed that 78% of stakeholders said the NDP gives them confidence on our commitment to flexibility for the future, especially when considering planned assets for flexibility provision.

PROCUREMENT

Changes to procurement processes and technical requirements

Following stakeholder feedback gathered throughout the year at our one-to-one discussions, events, webinars and consultation, we made a number of changes to our procurement processes and technical requirements to simplify the process and increase market opportunities for providers.

- We have removed the annual Commercial Qualification registration requirement on Piclo. Company qualification is now only required once and any providers already approved on Piclo will not be required to submit a new application for future tenders. Instead, we will just require updated insurance documents to ensure the correct level of insurance is still in place.

- Until this year, flexibility providers were required to provide minute by minute metering to accurately calculate the level of performance and settlement. However, the majority of feedback we received from providers throughout the year was in favour of half hourly metering and said they were unable to provide minute-by-minute metering. We have therefore made the decision to now accept alternative types of metering granularity such as half hourly metering in addition to minute-by-minute metering.

  Where an alternative to minute-by-minute granularity is provided, the data may be disaggregated. For example, if half hourly metering is provided, the kilowatt hour (kWh) for that period will be divided by thirty to produce a minute-by-minute energy usage figure. Alongside this change we have advised providers that this will decrease the accuracy of billing so there is a risk that the asset will show as an under delivery of capacity during a period of change in flexible services requirements.

We anticipate that this decision will deliver huge benefits for all participants and open up more opportunities for providers looking to submit a tender response.

- Based on stakeholder feedback from our latest consultation, we have reduced our minimum flexible capacity requirement for directly contracted resources participating in our tenders from 50kW to 10kW to allow more players to get involved in our tenders. We recognised that this was a key barrier to participation particularly for aggregators who struggled to offer a minimum of 50kW per requirement zone, despite there being no restrictions on the size of sub sites of the portfolio. We hope this change will be a huge step in opening up the provision of flexibility for all.
- During 2022 and 2023, members of our team contributed to Procurement Processes Technical Working Group (TWG) which set out to standardise procurement processes for market entry into flexibility. This includes both Commercial and Technical criteria and will ultimately provide a standard pre-qualification data template for providers which can be used by all DNOs for adoption across their flex procurement processes; whether they are facilitated through manual or system/platform procedures. The majority of these new streamlined set of questions have now been implemented into the Piclo Flex platform so providers should have a more positive onboarding experience.
- In line with the ENA Settlement technical Working groups recommendation's, following stakeholder feedback, we have adopted the BSC -COP 11 accuracy, calibration test certification, limits of error, and sealing requirements for where asset metering is being utilised.
- To boost market confidence and facilitate participation in flexibility markets, we utilise the Standard Flexibility Agreement and will continue to adopt updated versions, created in collaboration with all Great Britain DNOs, National Grid Electricity System Operator (ESO) and stakeholders. This consistent approach simplifies the standard contract, reduces jargon and ensures clear and consistent terminology. A copy of the latest version of the agreement is available to view year round within our document library and is included as part of our Invitation to Tender (ITT) documentation.

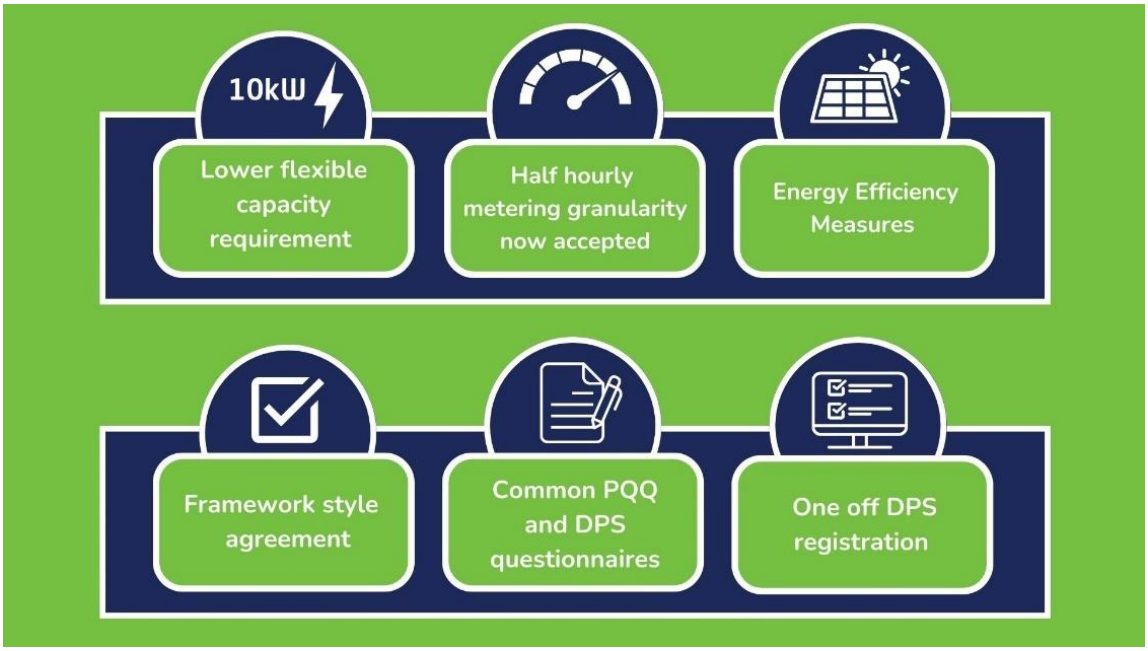
  We adopted V2.1 for our Autumn tender this year and intend to adopt V3 next year in line with the industry move towards a framework style agreement to facilitate shorter term procurement in the near future. To prepare for the implementation of a framework agreement, we sought feedback from stakeholders through our engagement activities in 2023 including our consultation to ensure that our stakeholders experience a smooth transition to this new process and implement it in a way that works best for them.

  The current process requires providers to submit a bid in advance of entering into contract with Electricity North West. The new framework approach would see the contract move from the final stage of the procurement process to being included as part of the commercial qualification step on the Piclo platform with both parties agreeing the terms and conditions of the tender in advance of the bidding window. We have been working with Piclo on how best to integrate this new agreement onto the PicloFlex platform and how the agreement could be adopted for both short and long term requirements.

  We recognise a framework approach is best suited to short term procurement and energised assets where there is more certainty of asset availability and service delivery. We're looking to move to shorter term procurement in the next year or two as we enhance our network monitoring and modelling processes. In the meantime, we want to remain consistent with the industry standard to ensure transparency and reduce barriers to participation. We will therefore look to adapt the new framework agreement for our longer-term requirements by

offering an annual update period for providers to refresh their flexible capacity and bid price should circumstances change e.g. If a customer decides to sell their asset.

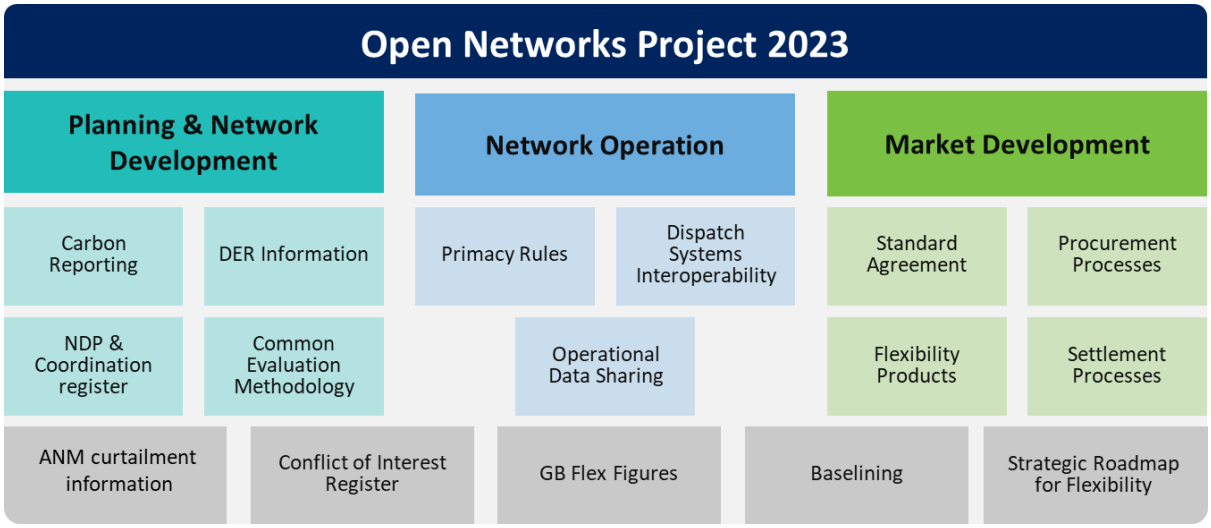
- To facilitate the transition towards the new set of industry standardised products next year, we adopted the new product parameters for our Autumn tender to allow providers to familiarise themselves with the new streamlined parameters so they can easily map the old products to the new ones next year. We will provide overviews of the new products at our events, in our newsletters and on our website.



INDUSTRY COLLABORATION

As an active participant of the Energy Networks Association's (ENA) Open Networks Project, we co-ordinated with the other UK DNOs and IDNOs, the Electricity System Operator (ESO), the Department for Business, Energy and Industrial Strategy (BEIS), the energy regulator Ofgem and the Transmission Operators (TOs) throughout 2023, adopting consistent approaches informed by stakeholders across the entire flexibility process as we work together to facilitate decarbonisation across Great Britain.

This year a key objective was to improve the standardisation of flexibility product definitions to enable flexibility providers to more easily identify the services they're best placed to offer, based on a more streamlined selection of products. The aim of this objective is to have at least 80% of flexibility tendered through common products by 2024. In addition to this, we are working alongside other DNOs and the ESO to streamline the Dynamic Purchasing System (DPS) and Pre-Qualification Questionnaire (PQQ) forms on Piclo to create a faster, simplified pre-application process for providers. Full details of the work products and intended deliverables for this year can be found in the 2023 launch document.



We have continued to support the Open Networks project to identify good practice and standardise the process of providing flexibility services to the grid to create a streamlined customer experience, providing a representative to all Flexibility Services Workstream products to ensure our stakeholder's views and interests are supported through the work to standardise the Flexible Services integration into Distribution System Operation. Some key highlights from this year's work include:

Planning and Network Development

Carbon Reporting

Following on from the work that was carried out within the 2022 Open Networks Work programme on Carbon Reporting, 2023 was the first year the methodology that was developed was utilised by DNOs within their SCL31E – Procurement Reports. The Technical working group gathered feedback from stakeholders on the usage of the carbon reporting methodology. The report's original purpose was to provide a common reporting methodology to government departments for all ENA members to utilise when reporting Carbon impacts from the use of flexible services. The 2023 work identified that the methodology and reporting were still fit for purpose for this core user group. The working group also sought feedback from other stakeholder groups. External stakeholder feedback showed that users would like to see greater transparency of the formulae used, as well as a greater level of disaggregated data. The outcome of this feedback is to include both of these items within the 2024 reporting. The increase of granularity of data sharing will facilitate the utilisation of alternative calculation methodologies, and presentation of data in a format more accessible to different audiences. Additionally, the list of technology types will be expanded to increase the granularity of reporting. The technical working group have been working with the SLC31E procurement reporting working group to modify the reporting templates for 2024 to incorporate these proposed changes.

Distributed Energy Resource (DER) Information

The Distributed Energy Resource (DER) visibility working group was tasked with harmonising the DER monitoring and control requirements at the connection interface for distributed energy resource (DER) connections across different DNOs.

The technical working group has carried out stakeholder engagement with distributed energy resource developers and operators, to inform whether the data points recommended by the technical working group are generally already available at site level, or if this would require additional infrastructure to be installed within the customer network.

Based on a use cases assessment, qualitative cost benefit analysis and feedback received from developers during the stakeholder engagement sessions, the technical working group has developed a recommendation for a list of monitoring and control data points, which will allow us to unlock significant customer benefits. The outcome of this work has been a recommendation for modifications to the DCode that will now be assessed by the DCode working group.

Network Development Plan (NDP) & Co-ordination register

The technical working group carried out a review of the Network Development Plan (NDP) form of statement and Co-ordination Register and have decided that they currently propose no changes, as they are fit for purpose. Electricity North West (ENWL) continue to publish our NDP statement in line with the ENA recommendations.

ANM Curtailment Information

This year the ANM curtailment information technical working group have been focusing upon delivering the recommendations generated within the 2022 into business as usual. Electricity North West (ENWL) do not currently manage any flexible connections offers utilising an ANM system, and as such it has not been possible to fully implement all recommendations into business as usual. Where the recommendations are not directly linked to ANM, ENWL have already implemented the recommendations and are publishing the curtailment information. We commit that when the ANM system is utilised, that curtailment information will be published following the recommendations from this technical working group.

Network Operation

Primacy Rules

The Primacy rules technical working group in 2023 have successfully delivered two primacy rules into an implementation phase. These rules pertain to the conflict between DNO flexible services and the ESO balancing mechanism market; and ESO Transmission Constraint Management connections. A full summary of these rules is available on the ENA website.

Following the publication of these rules the technical working group have shifted its focus toward enabling a greater level of data sharing which will enable a significantly greater number of potential conflicts to be identified and resolved. Utilising the learning and development from existing network trials of new products being co-developed between the ESO and DNOs, the working group are continuing to identify which data sets will enable the greatest level of value to whole system working reducing the risks of service conflicts.

Dispatch Systems Interoperability

The core aim of this technical working group has been to carry out a holistic assessment of current dispatch approaches utilised in flexible services markets and determine what a future UK standard should include. The technical working group engaged with the PNDC consultancy organisation to carry out this assessment. Through the work PNDC have developed a range of criteria to assess dispatch standards which are already in existence and assessed a number of existing standards that are already in use worldwide. Following stakeholder feedback over a number of years the technical working group are focusing on finding or developing an Applications Programming interface (API) standard. The work in 2023 has found that there is no one existing API standard that meets all of the requirements the ENA project members had defined as Must and Should requirements, on a MoSCoW assessment scale. Focus is on ensuring that any standard which is adopted does not create un-necessary barriers to entry for service providers, whilst ensuring that it is secure and robust enough to be utilised to control UK power flows. It is recognised that the standardisation of dispatch of flexible services is a highly important for stakeholders and as such a number of possible options are currently being evaluated to determine how the 2024 work program will develop and implement a standard as soon as possible.

Operational Data Sharing

From the 2022 work program a number of data sets were identified to be shared by all DNOs on their Open Data Portals. Under this commitment ENWL now publish GSP boundary Flow data and historical outage data. The remaining items that were identified from the 2022 work relate to information which links to the usage of Active Network Management systems (ANM); as ENWL are currently not utilising an ANM system we have committed that we will share this information as and when we begin utilising Active Network management.

The technical working group have focused upon identifying which data items should be shared in future between network operators, system operators, and external stakeholders in order to improve whole system working. This work is due to continue within 2024.

Market Development

Standard Agreement

Throughout 2023 our flexible services team contributed to the development of V2.1 of the Standard Flexibility Agreement as part of the Open Networks Standard Contract Technical Working Group. V2.1 was finalised and adopted in October 2023 in time for the launch of our Autumn 2023 flexibility tender and V3 is due to be finalised and implemented by Spring 2023. V3 remains a key deliverable for FY23 and will see an industry shift to a framework style agreement to facilitate shorter term procurement.

Procurement Processes

During 2022 and 2023, members of our team contributed to Procurement Processes Technical Working Group (TWG) which set out to standardise procurement processes for market entry into flexibility services. This group sought to consolidate and standardise both the Commercial and Technical criteria to improve clarity on the questions beings asked and remove unnecessary barriers to market entry.

This will ultimately provide a standard pre-qualification data template for providers which can be used by all DNOs for adoption across their flex procurement processes; whether they are facilitated through manual or system/platform procedures. Stakeholder feedback sessions were carried out to review and consolidate the standardised template proposal. Taking on board this feedback, the DNOs then set out clear and achievable implementation plans. In addition, the working group has welcomed the

representation of Market Platform Provider, Piclo, to the group since September 2023 who have been supporting with the finalisation of the templates and implementation planning.

Whilst all DNOs have committed to meet the April 2024 implementation target set by Ofgem, Electricity North West, along with several other DNOs, adopted the new templates via Piclo in October 2023 to remove barriers for participation in our Autumn tenders.

Flexibility Products

During the course of the 2023 flexibility products Open Networks technical working groups discussions, it was identified that there had been some significant divergence from the standard four products that had been agreed to be adopted from the 2020-2022 work. These divergences had predominantly evolved from variances in network topologies, stakeholder preferences and technical capabilities on the products, and a variance in interpretations of the product definitions. As there was already significant variance in how these products had been procured and utilised it was decided that instead of continuing to utilise the current four product names, that new product names that had more meaning would be developed. We have played an active role in collaborating with the other DNOs to form a set of common products that will be implemented from April 2024. There are five core products that will be adopted, however within each product there are variants one or more of the products parameters. The variation in the products predominantly reflects the needs of different stakeholders within the process to be able to actively engage in flexibility markets coupled with the needs of the network to make these products most useful.

As an interim step to full business as usual of the new products we have within the Autumn 2023 tender published our tender requirements in the new common format for specifying product parameters. We have however utilised the old standard naming for this tender round due to required changes to the procurement platform we are utilising and to allow for the formal publication of the new standard product parameters, to ensure that we don't deviate from this standard ahead of its formal publication (allowing for any minor changes to the standard prior to publication). Electricity North West are committing to adopt the new standard product names and product parameters within the Spring 2024 tender. We will seek to minimise the number of variants that we tender for as much as possible to minimise stakeholder confusion, however will look to ensure that we maximise the possibilities for different FSPs to participate and ensure we can maintain our commitments to utilising flexibility first.

Settlement Processes

The settlement processes technical working group have worked to align upon standardising a number of elements linked to flexible services settlement.

- Reviewed and expanded the list of parameters that were first developed in 2022 to include a future settlement API and CSV standard. This list has been passed to the Dispatch Interoperability Technical Working Group to envelop into their work.
- Following stakeholder feedback it has been agreed that where asset level metering is being utilised to record flexible services dispatch instead of boundary metering, the BSC -COP 11 accuracy, calibration test certification, limits of error, and sealing requirements are adopted. This requirement has been adopted into our Autumn 2023 flexible services tender documents.
- Agreement was reached that DNOs will accept a range of metering granularities including both minute-by-minute and half hourly granularities. Certain products rely on minute-by-minute metering granularity for accurate performance monitoring and settlement. Where an

alternative to minute-by-minute granularity is provided the data may be disaggregated. This guidance has been adopted into our Autumn 2023 flexible services tender documents.

- Progress towards agreeing standardised formulae for settlement payments has almost been completed, this work is expected to be completed within early 2024.

ENA Open Networks Project summary of updates table- Flexibility Services		
Product	**2023/24 Update**	**24/25 Delivery date**
Carbon reporting	SLC31E Procurement report being modified in 2024 to incorporate stakeholder feedback to provide greater transparency of the formulae used.	Q1
NDP & coordination register	No changes made to NDP report in 2023- We will continue to publish reports in line with ENA recommendations.	N/A
DER information	Following the development of a recommendation for a list of monitoring and control data points which will allow us to unlock significant customer benefits, a recommendation for modifications to the DCode will now be assessed by the DCode working group.	Q2
CEM & Tool	No changes to CEM & Tool in 2023. We will continue to utilise the tool to calculate a ceiling price for each requirement zone in our tenders and evaluate Provider's bids.	N/A
Operational data sharing	Focus is currently on identifying which data items should be shared in future between network operators, system operators, and external stakeholders in order to improve whole system working.	Q4
Dispatch systems interoperability	A number of possible options are currently being evaluated to determine how the 2024 work program will develop and implement an API standard as soon as possible.	Q3
Primacy rules	Following successful delivery of two primacy rules in 2023, the focus in 2024 will shift to identifying which data sets will enable the greatest level of value to whole system working reducing the risks of service conflicts.	Q3
Standard agreement	V2.1 will continue to be utilised by all DNOs until V3 is finalised and implemented as a framework style agreement in 2024.	Q1
Flexibility products	A new set of five core flexibility products were developed in 2023 and Electricity North West are committing to adopt the new standard product names and parameters for the Spring 2024 tender.	Q1
Procurement processes	Commercial and Technical criteria were consolidated and standardised in 2023 to improve clarity on the questions beings asked and remove unnecessary barriers to market entry.	Q1
Settlement process	A number of elements of the settlement process were standardised in 2023 including: metering, payments and parameters.	N/A

LOOKING FORWARD

Our approach to procuring flexibility services continues to evolve as markets develop and confidence builds in the use of these services. This collaborative work will continue in 2024 and throughout ED2 ensuring that we are choosing flexibility first and promoting and purchasing energy efficiency solutions to support a smart and flexible system that delivers capacity to customers at the most efficient price.

In line with the assurances of the Open Networks Project and to deliver on the commitments of the Smart Systems and Flexibility Plan, in 2024 we are committed to achieving consistency and standardisation of flexibility services across Great Britain. This year we will:

New products

Within the Spring 2024 tender we look forward to transitioning to the new flexible service products as developed by the Open Networks project within 2023. The aim of the changes to the products is to make it easier for flexible service providers and other stakeholder groups the key differences between the core parameters of each product; and allow for greater standardisation across the distribution network operators. To highlight our commitment to endorsing this standardisation we have already within the Autumn 2023 tender moved to include the product parameters as defined by the Open Network technical working group mapped against the existing products Restore, Dynamic and Secure.

Standard Agreement

V3 of the Standard Flexibility Agreement remains a key deliverable for FY23 and will see an industry shift to a framework style agreement to facilitate shorter term procurement. In line with the rest of the industry, we will adopt and implement V3 in 2024 once the T&Cs have been agreed and finalised by the Open Networks Standard Contract Technical Working Group. We will ensure to communicate the changes this will bring to the procurement process via our newsletters, website, tender press release, events and LinkedIn channel.

Shorter term procurement

Following stakeholder feedback in 2023 requesting shorter term procurement, we will explore the opportunities to increase the frequency of our tenders towards a closer to real time tender period to enable more accurate monitoring of energy user's behaviours and provide more flexibility and certainty of sufficient revenue for customers.

SLC31E – Procurement report data table development

An ENA co-ordinated collaboration working group have been established to review and develop the reporting data tables to ensure they are delivering maximum value to stakeholder who utilise these report. The working group was established 2023 and is due to deliver its final recommendations to Ofgem within 2024. Ofgem are supportive of this work and welcome the recommendations of the ENA working group to deliver enhancement to the data tables and the processes to create them. The working group have focusing on:

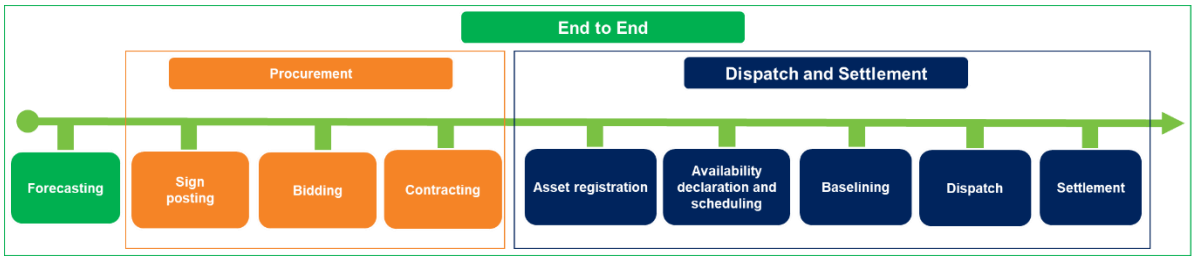
- Ensuring that the report is fulfilling the requirements of the key stakeholder audience
- Reflecting changes required as result of recommendations from the Open Networks Project e.g. changes to standardise product names & parameters, improvements to carbon reporting

- Reflecting within the report where DNOs are carrying out shorter term procurement, and allowing for comparison to longer term procured flexibility
- Improving the efficiency of production of the data tables, including the addition of automated formula based creation of summary tables
- Ensuring continued standardisation of approach utilised by all DNOs in production of the report

The team will continue work to support the work co-ordinated by the ENA to further standardise on SLC31E procurement reporting**,** as well as developing the reporting templates to make improvements recommended from stakeholder feedback.

Platform tender

Within 2023 ENWL became the first DNO to launch a competitive tender for a flexible services platform that can deliver the end-to-end capabilities to carry out forecasting of requirements, signposting, bidding, contracting, availability declaration, dispatch, settlement, and bilateral trading of obligations.



We received a good level of interest from the market of flexible services platform providers with 12 responses to our initial expression of interest. We subsequently received full tender responses from 6 of these providers. The selection process will complete in early 2024 where the successful bid will be awarded a contract, with a goal to publish the Spring 2024 tender via the selected platform in April 2024. This tender for services follows our commitment to tender for flexibility platform services throughout ED2 to promote market competition and ensure we are delivering best value for money and experience for our stakeholders.

Active Network Management (ANM)

The team are continuing to drive the development and rollout of the company's active network management system (ANM). The system has been going through rigorous testing and enhancement during the last year to ensure that when it is rolled out to business as usual it is fit for purpose and is industry leading. The ANM system will be utilised to optimise the existing network capacity utilisation Flexible assets, Services, and connections to manage the network within asset limits. The ANM system will be a key element in the expansion of the use of flexible services for an increasing number of network use cases; allowing for real time dispatch capabilities to resolve network constraints.

Strategic Connections – 'Part 4'

The team have been working in collaboration with colleagues from our strategic planning and connections teams to provide technical and commercial solutions to help speed up connections that are held in transmission network reinforcement queues. This work has been initiated on a national scale under the ESO Connections Reform, with each DNO expected to provide technical solutions to help speed up the connections of generation projects. The facilitation of these schemes will help to speed up the decarbonisation of the wholesale electricity market adding increased levels of renewable generation and storage capacity. It is also anticipated that the delivery of these projects may create

additional resources that can participate in local and national flexibility markets. The acceleration of these schemes will require:

- Modifications to our network management systems;
- New commercial agreements;
- Increased needs for data sharing between distributed energy resources (DERs), DNOs and the ESO.
- Increased levels of whole system network co-ordination

Within 2024 the team will continue to support the acceleration of these projects.

Ongoing Innovation Projects

The team have provided support to the innovation team on a number of projects which they have underway. Innovation projects support the transition to net zero, provide greater market liquidity and opportunities for providers, increase transparency, and support market standardisations. Some of the projects we have been involved in this year include:

Innovation projects	
BiTraDER	BiTraDER is a NIC project that will investigate, design, build and trial – live on the network – options for the introduction of a bilateral trading market through which large connected customers can trade their position in the merit order stack, which determines the order in which they are asked to curtail their output at times of high demand on the network. The team's involvement within this project is to provide subject matter expert support and help transition project learning into new business systems and processes. Within 2023 the team have been working to develop the technical specifications for the development of the trading platform and interfaces to the ENW systems. Commercial trading rules have been developed that will be trialled during the planned simulated and live network trials; and the team have also been carrying out recruitment of stakeholders to participate within these trials.
OVERARCHING CONTROL SYSTEM QUEST	Building upon learning and outputs from previous projects, QUEST will identify and trial novel methods to deliver a business-ready solution which will integrate and optimise the techniques in use across the whole distribution system. Proven technology will be combined with innovative software in our Network Management System (NMS) to co-ordinate a number of discrete techniques already deployed on our network such as Smart Street, and future systems such as Active Network Management (ANM). Due to impacts on the electricity industry from increasing cyber security demand, trials will now commence in 2024. The team's involvement within this project is to provide commercial support to the project and ensure that DNO procured flexible services are prioritised correctly when optimising different automation systems.
RetroMeter	With electricity demand from homes set to double by 2050, DNOs are faced with a significant capacity problem, leaving networks either to reinforce the network in constrained areas or procure flexible services. Energy efficiency measures are key

	source of flexibility for the network, permanently reducing the end user's energy demands on the network and releasing this spare capacity back to the networks avoiding the need for reinforcement. Energy efficiency is considerably more attractive for consumers with home retrofit measures providing health and comfort benefits in addition to reductions in volatile energy bills. Currently there is a lack of tried and tested methodologies for measuring the energy savings generated from the retrofit of energy efficiency measures. RetroMeter proposes the first Metered Energy Savings demonstrator project in the UK, piloting baselining methods and verifying savings in a live retrofit scheme in Manchester focusing of heating energy efficiency savings. The aim of the project is to demonstrate the financial and social benefits of retrofitting of energy efficiency measures; including providing a methodology for calculating a baseline that can be used when procuring flexible services provided from properties that are installing energy efficiency measures.
Pre-Sense	This programme is now being rolled our as business as usual, installing high accuracy LV monitoring across the LV network. The monitoring provides information on asset quality and can detect asset deterioration before it is significant enough to cause a fault. The system also generates significant LV load data. The team's involvement within this programme is to develop new systems and processes to utilise this new LV data to improve future network modelling and asset reinforcement programmes.
Net Zero Terrace	The community-led 'Net Zero Terrace' project will be the first to explore utilising a DNO network to decarbonise terraced communities through an integrated, optimised community virtual power plant, taking a smart integrated systems approach to low carbon heat. The benefits include enabling communities to decarbonise whilst reducing costs by avoiding the expensive counterfactual of direct electric heating and deferring network reinforcement. The shared heating system will comprise shared ambient loops, home thermal storage, home energy management and community storage, with the potential to provide flexible services to the DNO. The project will require a local energy market to operate in the form of a ledger platform (digital platform, aggregates generation and allows Power Purchase Agreement (PPA) transactions) to manage PPA contracts between the shared assets and individual homeowners.
Project Commander	ENWL have been assisting WSP and the ESO with their "Coordinated Operational Methodology for Managing and Accessing Network Distributed Energy Resources" (Commander) project. The objectives of the project are to: • Identify and define alternative ESO/DNO coordination schemes for accessing and managing DERs with respect to their qualification, procurement, dispatch and settlement. In particular, the roles and responsibilities of the key actors involved, their interfaces across different timescales and information exchanges as well as key market arrangements to facilitate the process • Quantify and assess the techno-economic feasibility of alternative ESO/DNO coordination schemes for accessing and managing DERs for service provision at operational timescales • Develop an engineering-based roadmap and recommendations for the practical implementation of the preferred ESO/DNO coordination scheme.

USEFUL LINKS

Link name	URL
Electricity North West Flexibility Hub	Flexible Services (enwl.co.uk)
Piclo Flex platform	https://picloflex.com/
Energy Networks Association website	https://www.energynetworks.org/
Ofgem	Welcome to Ofgem | Ofgem
Sign up to receive our flexibility newsletters and event invites	Register for updates (enwl.co.uk)
Request a one-to-one discussion with a member of our team	Request a one-to-one discussion (enwl.co.uk)