



electricity  
north west

Bringing energy to your door



Invitation to submit an  
Expression of Interest to provide Flexible  
Services in RIIO-ED2 (2023 to 2028)

20 November 2020

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# 1 INTRODUCTION

This expression of interest seeks to gauge the level of interest of customers, flexibility providers, distributed energy resources, aggregators and any other interested party in providing flexible services to Electricity North West to operate its distribution network in the next regulatory period of RIIO-ED2, starting in 2023 and ending in 2028. In addition, we aim to learn about the current level of flexibility available on the network and obtain information into how much flexibility could potentially be available in the future to help inform our RIIO-ED2 business plan.

By understanding the current level of interest in our flexibility markets, we can ensure that our approach is tailored to meet the needs of our stakeholders as we demonstrate our commitment to reducing barriers to entry into the North West flexibility market.

## 1.1 About us

Electricity North West is one of 14 distribution network operators 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 and more than 45,000 km of underground electricity cables, as well as 34,000 substations and 85,000 items of switchgear.

Our network in the North West is one of the most reliable in the country and by the end of our current regulatory period, we will have invested £1.9bn in our network to ensure we continue to deliver an excellent, safe and affordable service to all our customers.

## 1.2 Planning for the future

We're currently preparing our plans for the next price control period and part of this process includes identifying areas within our network where demand is likely to exceed network capacity in the future.

The UK's transition to net zero and 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 will 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.

One 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 Flexible Services.

Flexible Services are the provision of a change in consumption and/or generation when instructed. The provision of a flexible service may be achieved by demand, generation or storage turn up, turn down or turn off. By providing Electricity North West with Flexible Services, a customer will receive payment in return.

This expression of interest highlights 21 locations on our grid and primary network (from 132kV down to 6.6kV) where we think we'll require flexible services in the future, due to network constraints.

Over the next three years we will begin to roll out further monitoring onto our low voltage networks. Coupled with aggregated smart meter data this new visibility on the utilisation of our low voltage networks will facilitate the development of low voltage flexibility markets. We therefore encourage customers connected to our low voltage networks to complete this Expression of Interest, as this will also provide valuable insight into our secondary network planning, although specific sites are not yet known at this stage.

We are continuously revising our approach to procuring flexibility in line with best practice as identified by the industry and through stakeholder engagement. By responding to this Expression of Interest we can incorporate your valuable feedback into our approach for the future.

### 1.3 How we will use your feedback

By providing us this useful information now , we hope to reinforce our commitment to flexibility in the longer term, recognising the benefits it can bring in terms of income generation and/or cost savings to customers, network resilience and helping our region reach its zero carbon targets.

To help us with this information gathering , we are asking you to complete the online survey which features several key questions which will inform our assumptions for the future.

## 2 NETWORK REQUIREMENTS

### 2.1 Grid & Primary requirements

Please note that these areas are not guaranteed and will be subject to future capacity reviews, however by understanding the potential for procuring flexibility in these areas we'll be able to make better informed decisions of how to invest in our network over the next eight years.

The maps below in Figures 2.1 to 2.3 show the grid and primary network locations with a potential need for flexible services. These are substation feeding areas, across locations within Electricity North West's licensed area. Note, the local city and town names are shown in green, whilst the substation names are identified alongside an icon indicating the type of flexible service required. Maybe insert a table with the icons showing the service type?

Figure 2.1: Map of locations with a potential need for flexibility in Cumbria

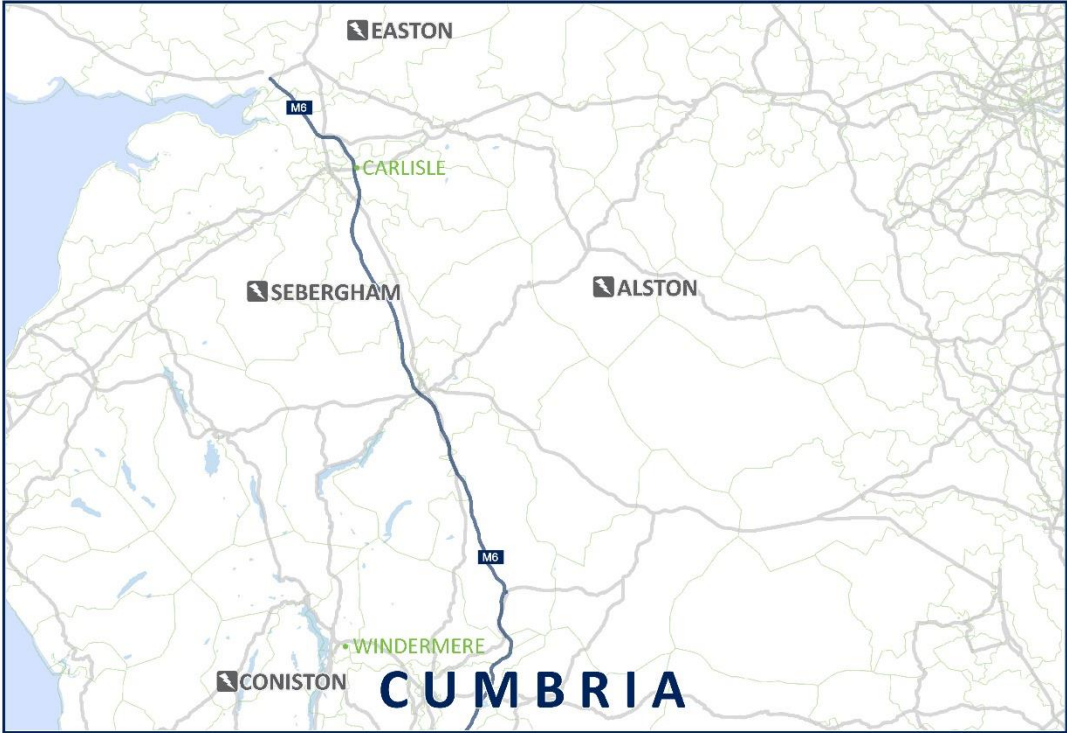


Figure 2.2: Map of locations with a potential need for flexibility in Lancashire



Figure 2.3: Map of locations with a potential need for flexibility in Greater Manchester



Figure 2.4: Summary of indicative requirements by location for the RIIO-ED2 period

Location	Starting from	Max Flex requirement, MVA	Postcode sectors
Agecroft	FY25	11.9	M21 1; M25 0-9; M27 0-9; M28 2; M30 9; M45 0-8; M5 2-5; M6 5-8; M7 0-9; M8 0-9
Alston	FY27	0.1	CA9 3
Ardwick	FY24	11.2	M1 2,3&7; M12 0; M12 4-6; M13 0&1; M13 9; M14 4,5&7; M15 6; M18 7&8; M60 1; M60 6&7
Baguley	FY27	0.9	M22 1&3; M22 6,7&9; M23 0-4; M23 8&9; M33 3; WA15 6&7
Blackfriars	FY24	1.3	M3 1; M3 4; M3 5; M3 6; M3 7; M60 7; M60 9; M7 0-2; M7 4&9; M8 8&9
Bolton By Bowland	FY28	0.1	BB7 3&4; BD23 3&4
Central Manchester	FY27	16.8	M1 1-4; M1 6&7; M13 9; M2 3; M60 1&4; M60 6,7&9; M99 1
Chorley South	FY27	1.2	PR6 0&9; PR7 1-5
Cloughton	FY20	0.4	LA2 8&9
Coniston	FY20	0.8	LA12 8; LA20 6; LA21 8; LA22 0
Easton	FY25	0.2	CA6 5&6
Frederick Road	FY24	13.6	M17 1&8; M2 4; M3 1,3-7&9; M30 0&3; M30 7-9; M5 0; M5 2-5; M50 1-3&9; M6 5-8; M60 1,7&9; M7 0-4&9; M7 9; M8 8&9
Hattersley	FY27	0.7	SK13 0,5,6&9; SK14 2,3&6; SK15 2&3
Moss Lane	FY25	1.9	BL9 8&9; M24 4, M25 2&3; M25 5-7; M26 0&4; M45 6-9, OL10 2
Little Hulton	FY25	7.8	BL5 1, M28 0&1; M28 3- 6; M29 7&8; M38 0,1&9
Moss Side	FY25	7.9	M14 4&7; M15 4-6; M16 0&1; M16 6-9
Queens Park	FY25	22.5	M10 6-9; M40 0-9; M7 1-4; M8 0-2; M8 4-9; M9 1,3&4; M9 5&8;
Sebergham	FY28	0.1	CA4 0; CA5 1,6&7; CA7 1&8;

Location	Starting from	Max Flex requirement, MVA	Postcode sectors
South Lancashire Region	FY28	0.1	PR25 1-5; PR25 9; PR26 6-9; PR5 1-3; PR5 5,6&8; PR6 0; PR6 6-9; PR7 1-7
Victoria Park	FY25	6.9	M1 7; M13 0&9; M14 5&6; M15 6
Wigan	FY27	3.4	WN1 1-3&9; WN2 1-5; WN3 4-6; WN4 0,8&9; WN5 0,7-9; WN6 0,7&9

## 2.2 Future high and low voltage network requirements

Over the next three years, Electricity North West is investing in monitoring our Low Voltage (LV) network. This data coupled with aggregated smart meter data will allow us to expand our opportunities for flexible services to these lower voltage levels, made possible by increased visibility of our distribution network.

We have approximately 34,000 distribution substations located across the North West, which presents a huge opportunity for highly locational flexibility markets. Our previous tenders have been limited to the number of grid and primary locations available to flexibility providers.

It is estimated that we will have up to 200 opportunities available each year, and so we are looking to gauge the level of interest in these lower level requirements, specifically we are interested in:

- The number of interested parties willing to participate
- The technologies proposed to be used to provide this flexibility from both domestic and small commercial premises e.g demand side response, EV chargers, heat pumps, batteries etc.
- Their geographical location, to identify potential clusters
- Preferred contract lengths
- Preferred payment structures, and
- Preferred service types (ie Sustain, Secure, Dyanmic, Restore).

## 3 RESPONDING TO THIS EXPRESSION OF INTEREST

### 3.1 Conditions precedent to delivering flexibility

In order to provide flexible services to Electricity North West, the provider will need to meet the following conditions:

- The flexible resource will need to be connected to Electricity North West Limited's distribution network and have a valid connection agreement in place prior to delivery of flexible services in the RIIO-ED2 period. There are no restrictions on the size of flexible assets for this Expression of interest as we recognise that customers at all voltage levels should have the opportunity to engage in flexibility in the future.



- The provider will need to be able to deliver and manage, upon Electricity North West's request, a net reduction in the load or an increase in the export, as seen by the distribution network.
- The flexible resource should have the ability to act (provide a response) reliably and consistently, in both magnitude and duration, throughout the contracted windows.
- We are open to all technology types that can meet our requirements. Flexible service providers may represent any existing or new industry sectors and any type of response mechanisms, such as demand reduction, demand offset, generation export, or electrical storage discharge.

### 3.2 Submitting a response

Please complete the [survey](#) with as much detail as you can provide at this stage.

This information will help us gain valuable insight into what flexible resources are already active in our region, and those that would be willing to participate.

Your responses will be used to help shape our approach to flexibility in the future as we pose key questions regarding preferred payment structures, contract lengths and service types.

We ask that surveys are completed 1<sup>st</sup> February 2021, and any additional feedback can be emailed to us directly at [flexible.contracts@enwl.co.uk](mailto:flexible.contracts@enwl.co.uk).

*To participate in any current tenders for flexibility, providers must register their assets on the [Piclo Flex](#) platform. Please note that submissions via this Expression of Interest will not be considered as part of Electricity North West's Autumn 2020 tender.*

### 3.3 Assessing responses

Electricity North West will use your information to inform our planning process over the next year, taking into consideration stakeholder preferences which will further inform our approach to flexibility procurement.

Formal tenders for these requirements will be issued over the coming years for these sites. Both the sites and the forecasted capacity requirements should be treated as indicative and do not constitute a guarantee of ENWL's flexibility requirements.

### 3.4 Opportunity for feedback

We also invite all responders and stakeholders to provide their views on our current approach to flexibility and how we can improve this in RIIO-ED2. Some key areas of focus for Electricity North West within RIIO-ED1 have been:

- Reducing barriers to participation
- Facilitating development of markets, and
- Improving visibility and transparency of information relating to flexibility.

If you have any views on how we can continue to improve in these areas, and any additional areas that we should focus on in the future, please include these in addition to your response and send directly to [flexible.contracts@enwl.co.uk](mailto:flexible.contracts@enwl.co.uk).

If you would prefer a one-to-one discussion then please contact us directly, and we would be happy to arrange a session with you.



## 4 GLOSSARY

Abbreviation	Definition
Distributed Energy Resource (DER)	Resources like generators, consumers, and electricity storage connected to the distribution network
Distributed generation (DG)	A generator connected to the distribution network
Distribution network operator (DNO)	The owner and operator of a distribution network licensed by the Gas and Electricity Markets Authority
Expression of Interest (Eoi)	This document which is publicising that Electricity North West is seeking flexible services from existing and potential customers connected to its distribution network
Flexible services	The provision of a change in import and/or export when instructed. This is also sometimes referred to as demand side response
Feeding area	The geographic area that is supplied electricity by the cables and/or overhead lines connected to the local substation
High voltage (HV)	The voltages of 6.6kV or 11kV in Electricity North West's distribution network
Low voltage (LV)	The voltages of 400V / 230V in Electricity North West's distribution network