

# Business Plan Commitments

Delivering on our promises to  
the communities we serve

To 31 March 2019

Electricity North West Limited  
Registered number 02366949

An aerial night photograph of a town, likely Bowness-on-Windermere, with its lights reflecting on the water of Windermere. The town is densely packed with buildings, and the lights create a warm glow against the dark night. The lake is in the middle ground, and the mountains are visible in the background under a twilight sky.

**electricity**  
**north west**  
Bringing energy to your door



# Welcome

## Our performance against our commitments to you

We are pleased to report that we have continued to make progress in our operational performance, including significantly improving our customer satisfaction whilst maintaining and improving one of the most reliable networks in the country. The continued focus on our safety culture has resulted in a further reduction in total recordable injury rates and our low number of lost time injuries has been sustained.

### Our performance

Performance against our Business Plan Commitments is positive. There are eight commitments where our performance is significantly better than target and only two that are falling short of the challenging promises we made. For these two commitments there are plans in place to improve performance levels to where we want them to be. All other commitments are on track.

Our 'Purpose and Principles', launched in 2018, sets out what we do and how we do it. These are now well understood and embedded within the business and are helping us to create a culture of continuous improvement across all areas. Our Purpose promises that 'Together we have the energy to transform our communities'.

Reflecting on operational performance during 2018/19, we have delivered significant improvements in:

**Customer service levels** - significant progress has been made in 2018/19 to improve our performance to 86.5% compared to 84.7% in 2017/18. The total number of complaints received has reduced by 19% compared to the prior year. We continue to focus on our Priority Service Register (PSR) customers, providing targeted services to customers who may need additional support from us, and developing links with other utilities in our region to support and engage with those customers.

**Connections** - we continue to provide an efficient Connections service and have made additional investment to implement an online connections portal; recognising the importance of this facility to our customers. There has also been a focus on our Guaranteed Standards of Performance, an area where we have made significant progress over the last four years, delivering our best ever performance in 2018/19.

**Network reliability** - we are delivering some of the lowest levels of Customer Interruptions (CIs) across the industry. This performance reflects the level of investment made in network automation in recent years. Reliability remains a priority for our stakeholders and we will continue to invest in improving performance through our Quality of Supply programme during ED1, and by improving field practices and risk management.

**Resilience** - we have continued to invest in flood defences at key sites, notably Lancaster and Rochdale, and targeted tree cutting programmes. We have seen the benefit of this in storm conditions, for example, in March 2019 Storm Gareth caused no significant damage to our network despite winds in excess of 70 miles per hour.

**Affordability** - we remain conscious of the impact of our costs on customer bills and are committed to delivering our service efficiently, with a particular focus on innovation to lower costs to customers. This is essential in our region with high levels of fuel poverty and where the nature of such poverty is varied. Last year the typical domestic customer in our region paid £80 from their total electricity bill for the services we provided, compared to a UK average of £87.

**Sustainability** - we continue to outperform targets set for carbon emission reductions at the beginning of the current price control (2015-2023). In collaboration with regional and national stakeholders, we are also making significant progress on strategic projects to deliver the low carbon agenda as discussed within this document.

**Safety performance** - the total recordable injury rate for 2018/19 (0.13 per 100,000 hours worked) is a new record for the company, and our lost time injury frequency rate remains low, demonstrating that we have delivered a step change in our safety culture and sustained it for a two-year period. We have sustained our lost time injury rate (0.047 per 100,000 hours worked) with rigorous reporting under the OSHA standard. We continue to work with our contractors to improve our overall safety culture.

You can read our progress against all of our commitments from page six in this report.



“Driven by clear and strong stakeholder views stating their priorities, we are continuing to drive improvements in customer service, delivering new connections, providing enhanced reliability and making significant progress on strategic projects to deliver the low carbon agenda”

### Transitioning to a low carbon economy

The move to a low carbon economy continues to gather momentum, with wide social and political support. The UK is on a transformative journey to decarbonise its energy system which is central to achieving the UK's target of being carbon neutral by 2050. Greater Manchester has set a target of being carbon neutral by 2038 and this is a fundamental element of the Company's strategic plans as we recognise our critical role as the North West's network operator in this journey. Driven by stakeholders and recognising the vital role we play, last year we added three low carbon commitments.

The transition to the low carbon economy and the emergence of the Distribution System Operator ('DSO') function will change our industry significantly and is central to our thinking and innovation activities. We continue to be focussed on leading industry debates and investing in innovation to move the industry forward in these critical areas. The implementation of our new Network Management System (NMS) and Active Network Management (ANM) will enable flexible solutions to support customers in the low carbon transition. Our Board has committed to, and embarked on, a significant investment in commercialising an innovative project called CLASS. CLASS will create network capacity, reducing the need for traditional reinforcement and will reduce UK carbon emissions by reducing the need for additional fossil fuelled generation at times of peak demand. At present we are the only network business in the UK to provide this service.

Our operating environment is changing rapidly and as a Distribution Network Operator, we recognise our fundamental role in supporting our communities as the UK transitions to a low carbon economy.

### Ensuring our business plan commitments continue to reflect stakeholder needs

Our Business Plan Commitments were agreed in 2014. Since then our business has evolved at pace and continues to do so; from regulation and legislative changes to new technologies and the influence of the drive to the low carbon economy. To ensure our Business Plan Commitments remain aligned with the company's future challenges, reflecting the result of stakeholder engagement in 2018, we have introduced a new 'low carbon' section, made up of three commitments; an additional public safety commitment and enhanced targets for two of our existing reliability commitments. We also updated four other commitments.

Further detail about all of the changes we have made to our original Business Plan Commitments is included on pages three and four of this report. We welcome your feedback on the changes we have made and contact details can be found at the back of the report.



**Peter Emery**  
Chief Executive Officer

# Ensuring our Business Plan Commitments continue to reflect stakeholders' needs

There are 42 commitments to report on for 2018/19

- We made 40 commitments when we agreed our Business Plan for RIIIO-ED1 (2015-2023)
- We agreed five new outputs with our stakeholders in 2017 and 2018
- The new commitments were offset by the completion of three others delivered by March 2018:



#1

Site security



#8

Responsible organisation



#9

Resilient supplies to vulnerable locations

The changes that we have made to our Business Plan Commitments have been a way of ensuring that we are accountable in our performance through:

- Demonstrating public commitment of our critical role in enabling a low carbon economy
- Demonstrating public commitment for investment targeted at high-profile public safety concerns
- Enhancing targets for commitments where additional investment has been made (the outcome of prior stakeholder engagement)
- Updating existing commitments to reflect industry evolution (licence obligation, regulation or legislation) and the resultant changes in company strategy
- Updating existing commitments to reflect the underlying investment programme being more developed (the related outcome being unchanged)



## In July 2017, at our strategic stakeholder advisory panel we:

- Talked through progress against our Business Plan Commitments
- Collected feedback and agreed an additional public safety commitment and updates to seven other commitments

These changes were reported on for the first time in 2017/18.



## In July 2018, at our strategic stakeholder advisory panel we:

- Talked through progress against our Business Plan Commitments
- Received feedback on our approach to keeping our commitments relevant
- Collected feedback and agreed four new commitments, enhanced targets for two commitments and updates to four commitments
- For one of these updates we also sought feedback at the subsequent vulnerable customer advisory panel

These changes are being reported on for the first time in this report.

## The commitments which are new outputs, have enhanced targets or have been changed are in the table below

July 2017		July 2018
<b>New outputs</b>		
New 'low carbon' section		#43) Driving transition to DSO #44) Facilitating expansion of electric vehicles #45) Enabling our communities to take part in the low carbon energy transition
Additional public safety commitments	#41) Management of the risk of link box failures	#42) Rising and lateral mains
<b>Enhanced targets</b>		
Enhanced targets for reliability commitments		#46) Improve overall reliability (original: #11) #47) Improve overall availability (original: #12)
<b>Other changes</b>		
Updated commitments	#3) Asbestos management #13) Complete flood protection to all major sites #16) Strategic site security #17) Ensure all substations have appropriate backup battery capacity #21) Ensure that the loading risk of the network is appropriately managed – larger transformers #24) Complaints – one day #25) Complaints – average days to close	#4) Enhanced Priority Service Register service #14) Network health – overall risk index #24) Complaints – one day #25) Complaints – average days to close



# Performance snapshot

## Our network



Number of customers **2.4m**



Overhead lines  
**12,592km**



Underground cables  
**44,733km**



Submarine cables  
**24km**

Total network length **57,349km**



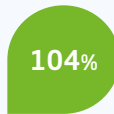
**TOTEX**



Total expenditure\*



RIIO-ED1 allowance\*



of allowance  
(before adjustment for  
expenditure profile)

**£69** Our part of a typical household bill\*

\*The price base for all values is 2012/13

Electricity North West received on average £80 from each home in 2018/19, around 14% of the typical electricity bill. This is equivalent to the £69 above which has been adjusted for the impact of inflation, per Ofgem Business Plan Reporting Guidance.

## How we're performing

### Reliability



Customer interruptions  
(Including exceptional events)



Customer minutes lost  
(Including exceptional events)



Customer interruptions  
(Excluding exceptional events)



Customer minutes lost  
(Excluding exceptional events)

Subject to agreement with Ofgem for the exceptional events

### Connections

Time to quote



Days

Time to connect



Days



## Our customer commitments

Customer satisfaction



**86.5%**

Social obligations



Stakeholder

**Scored  
4.54  
Pass**

Incentive on connections engagement (ICE)

Penalties incurred under the ICE scheme



**NONE**

## Operating responsibilities

### Safety

Licensee safety performance and compliance with Health and Safety Executive (HSE) legislation

Lost time injuries



Lost time injury frequency rate



\*Number of lost time injuries per 100,000 hours worked

Carbon emissions



**20,417  
tCO<sub>2</sub>e**

Undergrounding for visual amenity



**7.3km**

[www.enwl.co.uk/innovation](http://www.enwl.co.uk/innovation)

# Our performance in 2018/19

★ Performance significantly better than target    ✓ Met target    ● On track    ● Behind schedule    ✗ Missed target

Safety	#2. Safe climbing	●	P11
	#3. Asbestos management	●	P11
	#41. Management of the risk of link box failures	●	P12
	#42. Rising and lateral mains <b>New for 2018/19</b>	●	P12
Social	#4. Enhanced Priority Service Register service <b>Updated for 2018/19</b>	●	P13
	#5. Improve services for vulnerable and Priority Service Register customers – services	●	P13
	#6. Improve services for vulnerable and Priority Service Register customers – staff training	●	P14
	#7. Improve services for vulnerable and Priority Service Register customers – support	●	P14
Reliability	#10. Mitigate fuel poverty	●	P15
	#13. Complete flood protection programme to all major sites	●	P17
	#14. Network health – overall risk index <b>Updated for 2018/19</b>	★	P17
	#15. Network health – fault rate	★	P18
	#16. Strategic site security	●	P18
	#17. Ensure all major substations have appropriate backup battery capacity	●	P19
	#18. Reconfigure the network, where appropriate, to ensure redundancy in event of major incident	✓	P19
	#19. Improve performance for worst-served customers (WSC)	●	P20
	#20. Ensure that the loading risk of the network is appropriately managed – overloaded substations	★	P20
	#21. Ensure that the loading risk of the network is appropriately managed – larger transformers	●	P21
	#22. Ensure that network constraints to the connection of distributed generation are removed	●	P21
	#46. Improve overall reliability <b>Enhanced for 2018/19</b>	●	P22
Customer	#47. Improve overall availability <b>Enhanced for 2018/19</b>	●	P22
	#23. Customer survey – composite score	✓	P23
	#24. Complaints – one day <b>Updated for 2018/19</b>	✓	P24
	#25. Complaints – average days to close <b>Updated for 2018/19</b>	✓	P24
	#26. Stakeholder engagement	✓	P25
	#27. Guaranteed Standards	✓	P25
Connections	#28. Storms	✓	P26
	#29. Connection quotation – single domestic connections	★	P27
	#30. Connection quotation – up to four domestic connections	★	P27
	#31. Connection quotation – all other connections	★	P28
	#32. Connection completion – single domestic connections	✗	P28
	#33. Connection completion – up to four domestic connections	★	P29
	#34. Connection completion – all other connections below Extra High Voltage	✓	P29
	#35. Engagement – Incentive on connections engagement	✓	P30
Environment	#36. Guaranteed Standards of performance	✓	P30
	#37. Reduce carbon footprint	★	P31
	#38. Reduce losses	●	P31
	#39. Reduce oil lost from cables	●	P32
Low carbon	#40. Undergrounding overhead lines	●	P32
	#43. Driving transition to DSO <b>New for 2018/19</b>	●	P33
	#44. Facilitating expansion of electric vehicles <b>New for 2018/19</b>	●	P33
	#45. Enabling our communities to take part in the low carbon energy transition <b>New for 2018/19</b>	●	P34

The three commitments that were delivered in 2017/18 and the two original reliability commitments (enhanced targets for 2018/19) have been excluded from the above and the rest of this report.

# Leading the transition to a low carbon economy

Our regional stakeholders are setting **ambitious carbon targets** and communicating their desire to us to support them in achieving them. To support this we have created our '**Leading the North West to Zero Carbon**' plan articulating how we will lead and encourage businesses, our customers and our colleagues on the decarbonisation journey.

The plan can be found on our website in the dedicated section:

[www.enwl.co.uk/zerocarbon](http://www.enwl.co.uk/zerocarbon)

Greater Manchester's Mayor, Andy Burnham, has publicly stated that **the region will be a pioneer and accelerate efforts to become carbon neutral by 2038.**

Electricity North West is committed to becoming one of the leading organisations helping Greater Manchester, and the North West as a whole, to achieve this goal.

The business is well advanced in its transition to the future of electricity distribution.

Our new **Network Management System (NMS)** is in its final stages of implementation, and due to go live in early 2020. Work on scoping out the **Active Network Management (ANM)** system is well underway. ANM will enhance the flexible solutions we offer to support customers in the low carbon transition.

We are utilising our innovative **Customer Load Active System Services (CLASS)** system and are successfully bidding into National Grid's balancing services markets. CLASS will create network capacity, reducing the need for traditional reinforcement and will reduce UK carbon emissions by reducing the need for additional fossil fuelled generation at times of peak demand. At present we are the only network business in the UK to provide this service.

Our ongoing development of **Distribution System Operator (DSO) capability and services** is an essential part of this transition.

We continue to take an active role in the **Open Networks project**, which is the national coordination of the electricity networks' DSO transition, and have developed and offered flexibility services and capacity trading services to customers.

We have published our first 'Distribution Future Energy Scenarios and Regional Insights' document and have committed to invest in strategic infrastructure to support Manchester's low carbon growth.

The document and associated webinar can be found on our website in the dedicated section:

[www.enwl.co.uk/dfes](http://www.enwl.co.uk/dfes)

**Community energy** has emerged in the last few years as a rapidly developing trend in continental Europe and latterly the UK.

Community energy is the collaboration of customers to collectively generate, purchase, store, sell and consume their own energy.

We have started to engage with leading community energy groups, developing potential strategies to address both customer issues of fuel poverty and energy efficiency and to help manage capacity challenges in the network as demand increases.

Our Community and Local Energy Strategy, published in May 2019 and our 2019 Annual Report can be found on our website in the dedicated section:

[www.enwl.co.uk/communityandlocalenergy](http://www.enwl.co.uk/communityandlocalenergy)



# Upgrading our high rise, multi-occupancy buildings

Talking to our customers is helping pave the way for essential work to high rise, multi-occupancy buildings which are cabled by a network of rising and lateral mains (RLM).

Electricity travels up the building in 'rising' mains cables and splits off through 'lateral' service cables to provide individual flats with electricity. Mains cables that are normally buried in the ground for houses are instead buried in the fabric of the building for high rise flats.

A lot of these buildings were built in the sixties so we've been carrying out maintenance and refurbishment work to bring the RLM cables up-to-date if needed.

Before the work can take place we need to liaise with residents and landlords to get their consent and understanding. A full replacement of the electrical network in a block of flats takes about 12 weeks and is potentially very disruptive. In some cases residents aren't keen to allow us access into their property, as they don't understand why we need to carry out the work.

We have focussed on our stakeholder engagement to achieve better understanding through arranging dedicated customer events and being available on site for residents to talk to.

For example, for one building in Collyhurst in Manchester, we took over a vacant flat and installed a service cable so that residents could drop in and see for themselves what the flat looked like once the work was completed. The new cables are surface-mounted and boxed in so are much easier to access if needed, whereas the old cables were buried in the wall.

We also use the opportunity to promote our Priority Service Register, and the Local Energy Advice Partnership (LEAP) which advises residents on how to reduce their energy use and save money on their fuel bills.

## Project facts and figures

- 270 blocks of flats inspected
- Over half a million pounds spent on replacement or refurbishment of 26 buildings
- Service improved to 1,220 flats
- 469 cut-outs changed
- 56 master distribution boards fitted
- Innovative protection and monitoring equipment installed in 49 blocks
- £1m spend planned for 30 buildings in 2019/2020



To find out more about the RLM project and watch the project video, visit [www.enwl.co.uk/rlm](http://www.enwl.co.uk/rlm)

We agreed a new output with our stakeholders in 2018 to install newly developed electrical monitoring equipment at the highest risk premises (further detail in relation to this commitment (#42) can be found on page 12).

There are 53 high rise blocks that are more than 15 stories high, with older cables in our area. As inspection and repair works take time we have installed electrical monitoring equipment at over half of these, to ensure their safe operation. The programme is planned to deliver in 2019/20.



# Our performance in 2018/19





## #2. Safe climbing

We'll improve operational safety for climbing and working at height on our steel towers (pylons)

### Background

Steel towers support our 132kV overhead lines and stand around 27m tall – the equivalent of six double decker buses stacked one on top of the other. Our employees work on these towers all year round in all weather conditions.

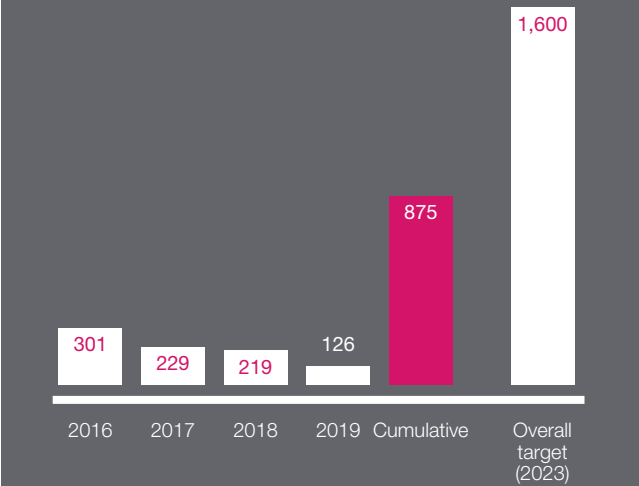
We are installing 'latchway' systems on all of our steel towers. These are permanently fixed to the structure and enable safer climbing through the provision of additional fall arrest protection.

Measurement	Target	Completion date
Number of towers with latchway installed	1,600	2023

### Performance ●

In 2018/19 we installed 126 latchway systems, taking the total current price control period (2015-23) progress to 875.

The programme is 55% complete after four years of the eight-year period and is ahead of the run rate required to meet the target.



## #3. Asbestos management

We'll make sure asbestos in our substations is safely managed

### Background

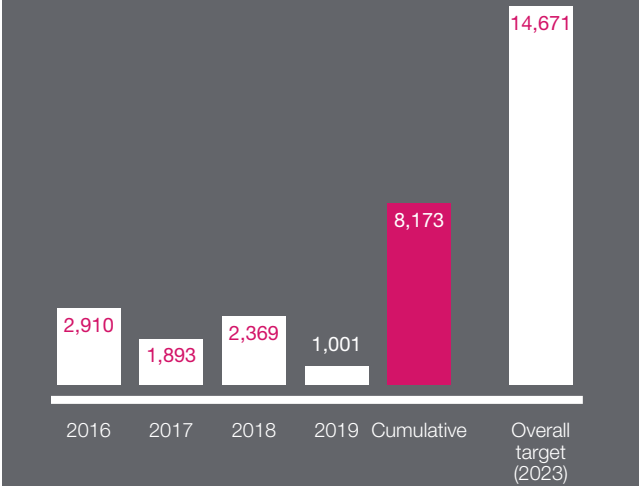
The majority of our network assets were installed in the 1950s and 1960s. At that time, the dangers of asbestos were not understood and this material was used widely in construction and insulation, including use in our substations.

Measurement	Target	Completion date
Inspect & remediate, to make safe all of our substations	14,671 inspections & sites made safe where required	2023

### Performance ●

In 2018/19 we completed 1,001 inspections. This takes the total current price control period (2015-23) progress to 8,173 inspections. The total number of remediations is 1,035.

The programme is 56% complete after four years of the eight-year period and is ahead of the run rate required to meet the target.





## #41. Management of the risk of link box failures

We'll put in place additional measures to mitigate the potential risk of link box failures

### Background

Disruptive failures of underground link boxes, which are where we connect underground cables, are rare, but their location in public areas could pose a public safety risk if not appropriately managed.

Measurement	Target	Completion date
Inspect & intervene, to make safe all our link boxes	Over 18,000 inspections & interventions where required	2023

### Performance ●

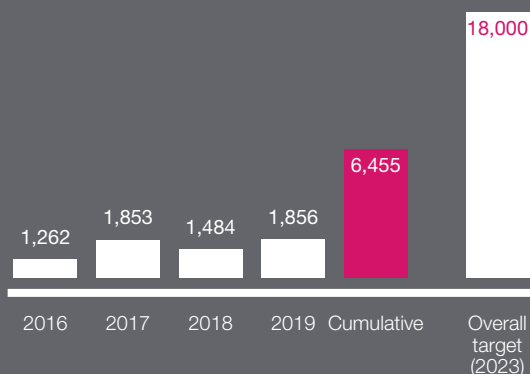
In 2018/19 we completed 1,856 inspections. This takes the total current price control period (2015-23) progress to 6,455 inspections. The total number of interventions is 3,604.

Inspections assess the risk. Depending on the risk, an intervention may be required; either blast mitigation protection, replacement or removal of the link box.

The type of intervention depends on the magnitude of the risk.

In 2018/19 the blast mitigation protection used was a new innovation of a blast bag rather than the traditional fire blanket. This has been designed to provide increased blast mitigation protection at lower cost to customers.

The programme is 36% complete after four years of the eight-year period and we expect to complete the remaining work by 2023. The speed of roll out will increase over the coming years now the blast bag has been designed and tested.



## #42. Rising and Lateral Mains (RLM)

We'll fit innovative vacuum circuit breakers (Weezaps) at our higher risk sites to reduce the safety risks

### Background

Rising and lateral mains (RLM) refers to the electrical system in multi-occupancy properties which, if not properly maintained, could present a public safety risk. Electricity North West has a proactive programme of replacing the highest risk RLM installations, in conjunction with the building owners; however this is likely to take many years to complete.

To reduce the risk, we are installing newly developed electrical monitoring equipment, Weezaps, at the highest risk premises. This allows us to monitor network performance and identify abnormalities. Weezaps have the capability to detect early stage electrical faults and allow an operator to remotely shutdown the electrical supply to minimise the likelihood of fire.

Measurement	Target	Completion date
Deployment of Weezap protection	All sites deemed to have a high risk due to age, height or condition	2023

### Performance ●

The highest risk sites are those that are more than 15 stories high, contain more than 50 meter points and where the RLM are more than 20 years old.

There are 53 high rise blocks that are more than 15 stories high, with older cables in our area. In 2018/19 we fitted Weezaps at 28 of these sites.

The programme is planned to deliver in 2019/20.

#### #4. Enhanced Priority Service Register (PSR) service (UPDATED)

We'll keep an up-to-date and accurate PSR

##### Background

We maintain a PSR to identify those customers who are most dependent on our services. We contact customers on our register to ensure the details we are holding are correct. This helps us to develop tailored support to assist customers, for example those who are medically dependent on electricity, to ensure we are offering the right level of support at the right time.

Measurement	Target	Completion date
Up-to-date and accurate information	To contact 100% of our high priority PSR customers every year and contact one third of medium/low priority PSR customers every two years	On-going

##### Performance

We started the year with 603,000 Priority Services Register customers and on the 31 March 2019, we have increased this number by 241,000 which means we now have 844,000 people registered on our PSR, 193,000 of which are high priority customers and the remaining 651,000 are medium / low priority customers.

In 2018/19 we contacted 214,930 high priority customers, equating to 100% of the total number as at the end of March 2019. We also contacted 98,070 medium/low priority customers, 15% of the total as at the end of March 2019.

Contact is made through customers' preferred channels and managed by targeted campaigns.

We continue to evolve our industry leading data sharing partnership with United Utilities. By sharing data we reduce customer effort and increase the support given to customers through a single registration. This process is leading edge and being used as best practice model as the water industry develops its approach to the single PSR with all energy distributors and suppliers.

We have invested in several external reviews of our service to establish our improvement program going forward. This includes investment in a social data mapping tool to generate a more informed awareness of our customers and community needs by geography or social need in the region.

Systems improvements, training and awareness programs have raised the capability of the customer contact centre agents. This, along with updating data entry processes and codes, help to ensure our database is meaningful.

Further investment has been made in Virtual Workers, who will be deployed to cleanse our PSR records and reduce duplication of data further ensuring our database is meaningful.

#### #5. Improve services for vulnerable and Priority Service Register customers – services provided

We'll improve our services to provide better support to PSR customers

##### Background

The services we can provide are only as good as the data we hold. Our data analysis allows us to determine how many PSR customers we have, what their circumstances are and where they reside. We combine this with feedback from stakeholders to ensure that what we do reflects genuine need.

Measurement	Target	Completion date
Better targeted services using data that will become available over the course of RII0-ED1	Enhancements identified by stakeholder engagement	On-going

##### Performance

We have reviewed our customer needs and refreshed our partnerships to meet these needs. The focus has been to develop support for hard to reach communities, isolated customers and digital education.

**Energy Saving Trust** continue to deliver a fuel efficiency referral network, providing customers with advice on how to save energy, switch suppliers and access further support.

**Cosy Homes in Lancashire (CHiL)** help alleviate fuel poverty and increase fuel efficiency in association with Lancashire County Council. Initiatives include advice and support for energy saving and debt management plus grants to improve living conditions.

**Kashmir Youth Project (KYP)** provide support within the Kashmir Community of Rochdale to ensure that residents have access to information about ENWL's PSR. Energy Awareness Events raise our company profile, and translation services are provided by KYP to ensure that language is not a barrier to advice.

**Burnley Boys and Girls Club** have created Eco Warriors to raise awareness of energy efficiency in their community and increasing the PSR registration to provide to the support we can offer.

**Advocacy Focus and Homelife Carlisle** offer a befriending scheme that reduces social isolation, raises awareness of the benefits and support available to customers and encourages digital learning. Homelife Carlisle is affiliated to Carlisle County Council and Advocacy Focus is based in East Lancashire.



## #6. Improve services for vulnerable and Priority Service Register customers – staff training

We'll improve our colleagues' capabilities to provide better support to PSR customers

### Background

Our customer-facing colleagues are our primary means of contact with our priority service customers. It is important that they are fully trained to both recognise potential PSR customers and, where this is the case, provide a proactive registration and service.

Measurement	Target	Completion date
Enhanced training for all customer-facing frontline colleagues	Improved identification of and advice to vulnerable customers	On-going

### Performance

Our colleagues come into contact with customers in a number of different ways; they are well placed to deliver support.

Our welfare team are being specifically trained to recognise and confidently identify signs of vulnerability, utilising specific skills to identify triggers, such as a word in a conversation or a hint about loss of job or earnings.

We are continually enhancing the skills and experience of our welfare team, and engaging with external vulnerable customer experts to improve and enhance our offering.

**Energy Efficiency training:** Rolled out to all contact centre staff.

**Dementia Friends training:** We continue to provide Dementia training to frontline staff and have rolled out a new e-learning module to allow all of our employees the opportunity to become a dementia friend.

**National Autistic Society:** Our contact centre team are developing a greater understanding of Autism. In Autumn 2019 we will be identifying and training champions across the business to promote understanding. This training will also be provided to key frontline operational staff to ensure a company standard is embedded. It's essential that colleagues understand autism and are comfortable discussing this condition with customers as the need arises.

We operate a continuous improvement culture towards the development of the wider teams. In Summer 2019 we commenced vulnerable customer training to operational staff, to be followed by an enhanced version of this training to key frontline operational staff who work closely with customers across the region.

Our website and PSR pages have been reviewed by experts and recommendations are being implemented.

## #7. Improve services for vulnerable and Priority Service Register customers – support provided

We'll improve our support services during interruptions for PSR customers

### Background

Some of our customers are more dependent on electricity than others and are therefore more severely affected by planned or unplanned interruptions. These customers receive enhanced support during power cuts whether planned or unplanned.

Measurement	Target	Completion date
Welfare package support and temporary power supplies	Deliver services during planned or unplanned power interruptions	On-going

### Performance

In the event of a severe weather warning, we endeavour to contact all our PSR customers through their preferred channel. We also contact customers proactively to advise them of planned work, arranging additional support as required.

When providing frontline support for priority service customers, it is important that the specific needs of the customers are understood and addressed, so where possible, we tailor our solutions to our customer needs.

Examples include:

**Highly trained welfare support staff:** All our customer-facing colleagues are welfare trained and our customers' safety and wellbeing is paramount when we are considering their needs. If required, we will deploy our welfare team to the site. Working side-by-side with our operational teams, we support the customers by offering face-to-face support and advice which we know makes a real difference to our customers at times of need.

**Planned supply interruptions (PSIs):** Our PSR dashboard now allows us to build PSR considerations into our plans and gives our colleagues the ability to tailor onsite support to customers' needs. We work to ensure that welfare advisors are available to support on site. This has been especially important in 2019 as we carry out the Rising Lateral Mains refurbishment programme; welfare staff have been on site to support PSR customers and to sign up customers who are currently not on the register.

**Food and Drink Provision:** We have additional partnerships with hot food providers, provide Just Eat food vouchers and have arrangements to supply hot food and drink at local eating establishments throughout the region. These changes will provide more accessible and cost-effective food and drink provision.

#10. Mitigate fuel poverty

We'll reduce our prices

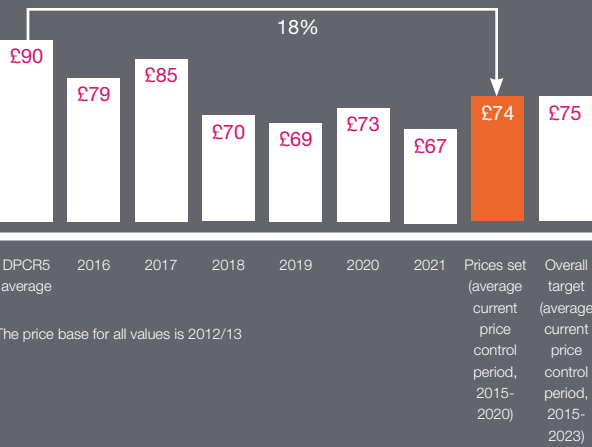
Background

Fuel poverty is affecting an increasing percentage of the population. We aim to keep current price control period (2015-23) prices lower than those of the previous price review (2010-2015) to help work against this growing issue. The RIIO incentive mechanisms ensure our customers share the benefits of our improved performance. The cost efficiencies that we generate result in lower prices in the current price control period.

Measurement	Target	Completion date
Reduced average RIIO-ED1 prices Compared to DPCR5	16%	2015-2023

Performance ●

For a standard domestic customer, our average current price control period charges will be 18% lower than those of the previous price control period. We expect to deliver this commitment through the prices we will set for the remainder of the current price control period (2021/22 to 2022/23). Our prices for 2020/21 will be 26% lower than the previous price control average (our prices are set two years in advance).



Electricity North West received on average £80 from each home in 2018/19, around 14% of the typical electricity bill. This is equivalent to the £69 above which has been adjusted for the impact of inflation, per Ofgem Business Plan Reporting Guidance.







#13. Complete flood protection programme to all major sites

We'll reduce the risk of our major sites to flooding

Background

Our programme aims to protect those of our major substations identified as being at risk against a once in 100-year flooding risk.

To protect our customers and our network, we are spending money on flood defences in excess of the original business plan. In some cases this will improve the level of resilience to a one in 1000-year forecast flood levels. Extensive works are being completed at Lancaster, Carlisle and Rochdale.

Measurement	Target	Completion date
Number of higher voltage substations protected against 1/100 year flooding	46	2020

Performance ●

The programme currently stands at 46 sites, down from 47 following detailed assessment. Three sites (Peel BSP, Edgeley BR and Clifton Marsh) have been removed from the programme whilst two primary sites (Hindley and Westgate) supplying more than 10,000 customers each have been added following changes to industry standards requiring these to be protected to 1/1000 flood risk instead of 1/100.

In 2018/19, flood mitigation works were completed at 11 sites bringing the total of completed sites to 30 for the current price control period (2015-23).

The programme is 65% complete after four years of the five-year target with work underway at all the remaining sites with the exception of two (Avenham and Stanah) where flood mitigation works have to be aligned to required asset replacement work. These two sites, together with an additional five (Maryport, Blackburn (2) and Rochdale Central (2)) will be completed after the original 2020 target date due to their complexity, scale and alignment to other construction works.

Year	Number of sites protected
2016	0
2017	4
2018	15
2019	11
Cumulative	30
Overall target (2020)	46

#14. Network health - overall risk index (UPDATED)

We'll deliver a reduction in the condition-related risk of our network through a targeted programme of replacement and refurbishment

Background

It is our responsibility to our customers to ensure that we both refurbish and replace our existing assets, to ensure the overall health of the network does not significantly deteriorate.

Our approach is to inspect, on an asset by asset basis, the condition of the asset to estimate the probability of it failing and to assess the consequence should that asset fail, for example, how easy it is to supply from other sites. We are then able to prioritise our investment based on the assets that are more likely to fail and those that will have the greater impact on customers.

Measurement	Target	Completion date
Risk points	11.5m	2023

Performance ★

In 2018/19 we have delivered 1.5 million risk points, taking the total current price control period (2015-23) progress to 7.1 million.

This means that we have now delivered 62% of the 11.5 million risk points after four years of the eight-year target and the programme is ahead of the run rate required to meet the target.

Year	Risk points (million)
2016	2.3
2017	1.5
2018	1.8
2019	1.5
Cumulative	7.1
Overall target (2023)	11.5

## #15. Network health - fault rate

We'll ensure the overall fault rate of the network doesn't deteriorate significantly from the 2011 – 2013 average

### Background

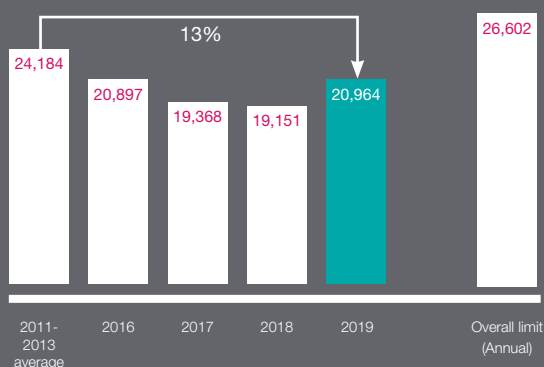
For some of our equipment, particularly buried assets such as cables, it is difficult to measure their condition accurately. For these assets, we are using the rate of faults to measure our network health. We calculate this fault rate as the number of faults we experience each year divided by the amount of equipment we have.

The fault rate method we use allocates weightings to different types of faults to allow us to create an overall picture of how we have performed.

Measurement	Target	Completion date
Fault rate	Less than 110% of 2013 average	On-going

### Performance ★

In 2018/19, the annual fault rate (excluding exceptional events) was 13% lower than the 2011 – 2013 average.



## #16. Strategic site security

We'll comply with security guidelines for Critical National Infrastructure (CNI)

### Background

Critical National Infrastructure is the element of national infrastructure where loss or compromise would result in a major detrimental impact on essential services, with severe consequences. The Centre for the Protection of National Infrastructure (CPNI) provides guidance to us in relation to which parts of our infrastructure fall into this category.

Measurement	Target	Completion date
Number of sites with protection to approved CPNI standard	1	2020

### Performance ●

The security enhancements are in progress and are expected to be completed in 2019/20.



## #17. Ensure all major substations have appropriate backup battery capacity

We'll ensure our network has 72 hour resilience to restart should the electricity system fail

### Background

Black Start is the procedure to restart all or part of the electricity system in the event of a complete shutdown. National Grid controls this and, if required, would sequentially restart generators and parts of the transmission and distribution networks until the whole system was live once again.

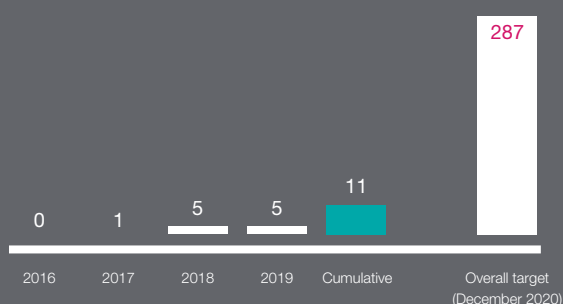
Our role in this is to ensure our network has sufficient battery backup so that the network's communications systems will work in the event of a complete mains power failure.

Measurement	Target	Completion date
Number of substations with 72 hour backup capability	287	December 2020

### Performance ○

The solution is made up of a combination of two elements. In addition to the installation of 72 hour batteries, we are fitting additional equipment to existing batteries to increase their capacity. So far we have commissioned 11 substations.

The programme is planned for delivery over the 2018-2020 period. We expect to complete all required work by the December 2020 deadline.



## #18. Reconfigure the network, where appropriate, to ensure operational redundancy in event of major incident

We'll modify the network where appropriate, to ensure it isn't overly dependent on a single physical structure

### Background

There are a small number of locations where strategically important electricity cables are vulnerable to malicious or accidental damage because they are installed in or on a single cable bridge and where we cannot backfeed customers from other sites.

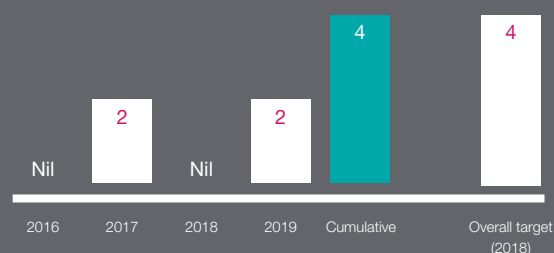
Measurement	Target	Completion date
Number of sites completed	4	2018

### Performance ✓

This commitment is now complete.

In 2018/19 work has been completed at Hawk Green and Stalybridge. This takes the total current price control period (2015-23) progress to four sites.

After conducting loading studies on the remaining sites, there is now sufficient backfeed capacity in these areas to maintain supplies in the event of a fault, therefore no work is required at these sites.



## #19. Improve performance for worst-served customers (WSC)

We'll work to ensure none of our customers are classified as 'worst-served'

### Background

A WSC is defined by Ofgem as a customer who has experienced 12 or more high voltage interruptions in the last three years, with a minimum of three interruptions per year.

Analysis of WSCs has helped to shape our investment programme. The solutions considered for improving performance are varied and include application of additional remote control and implementation of network automation among other solutions.

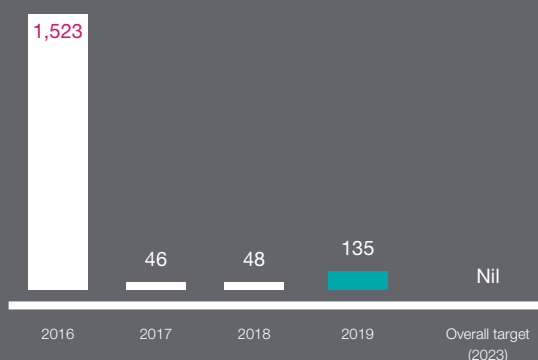
Measurement	Target	Completion date
Reduce the number of customers qualifying as worst-served	No WSC	2023

### Performance ●

The number of customers classified as worst-served at the end of 2018/19 was 135.

Once a year, based on our analysis of the previous three years' performance, we identify what additional investments are needed to improve the reliability of networks supplying customers newly classified as WSC. Where customers have been classified in previous years, we will already have projects underway and we will validate that these projects remain suitable.

We have made significant progress already, having removed hundreds of customers from this classification, and are working hard to deliver improved service to the remaining customers, with the aim of having zero worst-served customers at the end of the current price control (2023).



## #20. Ensure that the loading risk of the network is appropriately managed - overloaded substations

We'll manage the loading risk of our network

### Background

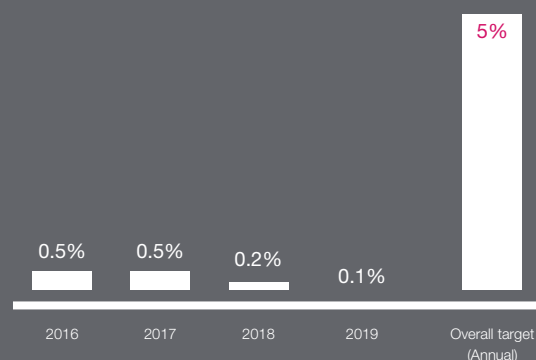
If demand exceeds capacity for an extended period of time, there is an increased safety risk and a greater vulnerability to faults or an extended loss of supply for customers supplied by such equipment.

We measure asset loading using a load index on our higher voltage substations. This compares the maximum demand on a substation to its capacity. We balance utilisation with an appropriate amount of spare capacity to accommodate short-term increases in demand.

Measurement	Target	Completion date
Proportion of customers connected via overloaded substations	<5%	On-going

### Performance ★

At the end of 2018/19 two substations were running above their firm capacity. The two substations feed 2,337 customers out of our total customer base of 2.4 million (0.1%).





#21. Ensure that the loading risk of the network is appropriately managed – larger transformers

We'll manage the loading risk of our network

### Background

Where new connections are added to the network, we may need to reinforce the network so that it can cope with the additional demand. Furthermore, we need to reinforce the network where the load from existing connections increases to the extent that assets become overloaded.

New substations, larger transformers and additional interconnection are standard traditional reinforcement interventions to address current and forecast capacity shortfalls.

Measurement	Target	Completion date
Install larger capacity transformers and/or additional interconnection at our major substations	Where required, in line with policy	2023

### Performance

We have three new connections driven schemes in progress and one completed, which will result in the installation of seven primary transformers in the Manchester city centre area. In these instances a customer has requested a supply which requires the installation of new transformers as the existing transformers are unable to provide the required capacity.

The following strategic reinforcement schemes, driven by the level of demand from existing connections in Manchester, will result in the installation of grid and primary transformers.

- Detailed design work is complete for the installation of a third grid transformer at Stuart Street Bulk Supply Point in Manchester city centre. Work will start on site in April 2020.
- Detailed design work is in progress for a new primary substation with two transformers in the South Manchester Enterprise Zone area.
- Preliminary design work has started on the installation of two additional primary transformers at existing primary substations in Manchester city centre.

Several Requests for Proposal were published during 2018/19 to gauge availability and pricing for Flexible Services as an alternative to conventional reinforcement. No viable flexible services alternatives were identified in the responses.

#22. Ensure that network constraints to the connection of distributed generation are removed

We'll remove network constraints that prevent the connection of distributed generation

### Background

The equipment that forms the electricity distribution network has to be able to cope with the large amounts of electrical energy that flow when faults occur. The amount of energy that would flow in a particular part of the network under worst case conditions is known as the fault level. We have designed our network to limit the fault energy to be as low as possible in order to maintain safety margins, but this can constrain our ability to connect new sources of electrical energy such as distributed generation, as well as the widespread adoption of low carbon technologies, in a particular area.

Measurement	Target	Completion date
Replace switchgear at locations where its current rating is likely to prevent the extensive connection of distributed generation	295	2023

### Performance

The programme delivery for this commitment commenced in 2018/19, starting with the rollout of the conventional reinforcement method (replacing older switchgear with higher-rated equivalents) which is expected to cover 236 distribution substations. So far we have completed 27 switchgear replacements.

The second part of this programme involves an innovative reinforcement technique to modify existing switchgear (where possible). The roll out will start in the coming year and will deliver the remainder of the volume.

Year	Replacements
2016	7
2017	4
2018	0
2019	16
Cumulative	27
Overall target (2023)	295

## #46. Improve overall reliability (ENHANCED)

We'll reduce the number of interruptions our customers experience

### Background

Our customers have told us that reliability is one of their top priorities and we work to reduce the amount of times our customers lose supply. We measure our performance against this using Ofgem's standard customer interruptions (CI) metric.

Measurement	Target	Completion date
Customer interruptions per 100 customers	29.8	2023

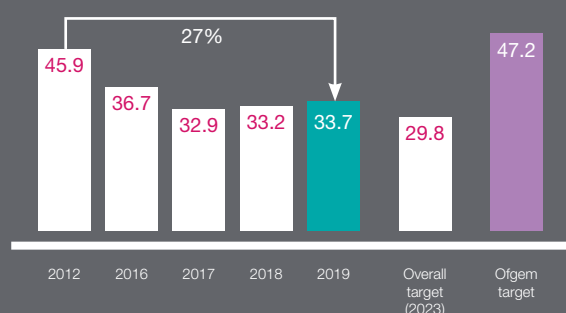
### Performance ●

This is a enhanced commitment to improve reliability by 35% (compared to 2012 levels) by 2023. Our original commitment to improve reliability by 20% has already been met.

In 2018/19, the number of interruptions our customers experienced was 27% lower than 2012. This is a slight drop in performance against 2017/18.

Despite increased fault volumes in the year the reliability of the network has remained steady due to the improved application of network automation. Equipment can either be ground-mounted or installed on our overhead network.

This provides the capability to complete switching operations and power restoration without a site visit being required and to automatically reconfigure the network to switch to alternative supplies without the intervention of a control engineer.



Our Ofgem target has been included to show the target set by the regulator for context.

Customer interruptions represent the number of interruptions our customers experience, measured through interruptions per 100 customers. It is calculated by taking the total number of customer interruptions, divided by the total number of customers connected to the network, multiplied by 100. It is adjusted to exclude exceptional events.

## #47. Improve overall availability (ENHANCED)

We'll reduce the time our customers are without power in the event of an interruption

### Background

During a fault it is important that we restore power as soon as possible. To track our performance against this we use Ofgem's standard customer minutes lost (CML) metric.

Measurement	Target	Completion date
Customer minutes lost per customer	31.1	2023

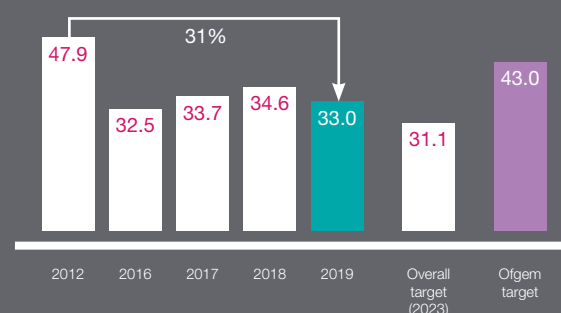
### Performance ●

This is a enhanced commitment to improve availability by 35% (compared to 2012 levels) by 2023. Our original commitment to improve availability by 20% has already been met.

In 2018/19, the length of time our customers were without power in the event of an interruption was 32% lower than 2012, improving on 2017/18 performance despite an increase in the volume of faults for the year.

Innovative fault detection equipment has been installed on our network. This helps our engineers to narrow down the location of a fault, resulting in improved restoration performance.

We have also focussed on embedding the localised dispatch teams that were created in in 2017/18 to optimise resource management.



Customer minutes lost represent the average time customers are without power per year, in the event of an interruption, measured as customer minutes lost per connected customers. It is calculated by taking the sum of the customer minutes lost for all restoration stages of all incidents, excluding exceptional events, and dividing by the number of connected customers as at 30 September each year.

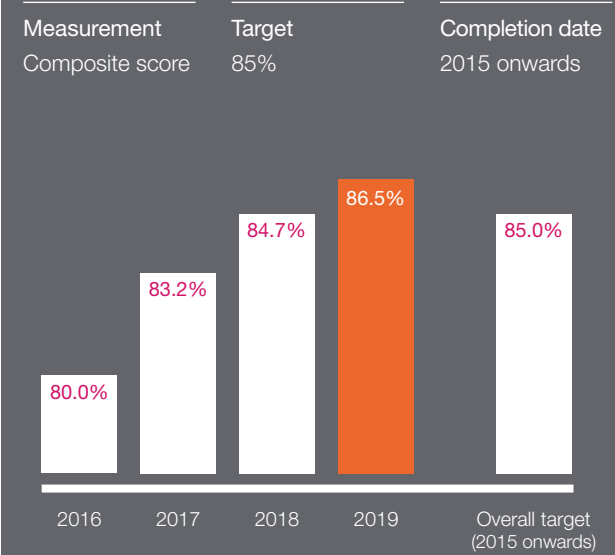


#23. Customer satisfaction – composite score

We'll improve our customer service performance

Background

Our composite score incorporates levels of customer satisfaction for interruptions, connections and general enquiries.



Performance

Customer satisfaction (CSAT) levels have improved during the year, achieving an overall score of 86.5% in 2018/19 compared to 84.7% in 2017/18. Performance during the last three years has increased by 6.5% through continuous improvement of processes and our customer culture.

We continue to drive improvements through clear actions focussing around simplification, compliance with our process that provides a positive customer journey when interacting with us, improvement in IT systems including the implementation of a new telephony platform called STORM to deliver a more tailored customer journey, and resourcing strategies.

Interruptions

This makes up 30% of our CSAT metric, covering planned and unplanned supply interruptions.

For planned supply interruptions (PSI) we provide our customers with PSI cards. These cards provide information about when the power cut will take place along with an explanation about the work that will take place. The continued focus on embedding the PSI Golden Rules (delivery factors which customers have identified as being important to them) underpins performance in this area. During winter months and where the planned outage impacts an area of high vulnerability, generators are used to ensure the electricity supply is maintained.

For unplanned interruptions, all customers who contact us about a loss of electricity either through speaking to an agent or matching to a fault in our messaging system are then updated about our work to restore their power supply. Following a systematic review of the customer journey and compliance against it, the contact centre has enhanced their role to manage every step in the fault journey for communications to customers.

Connections

This makes up 50% of the CSAT metric, covering quotes that we provide to customers and, where progressed, the delivery of this work.

Focus during the year has been on implementing a new structure with clear ownership, an updated pricing structure and working with our contractors to have clearly defined consistent service levels.

General enquiries

This makes up 20% of the overall CSAT metric, covering a broad range of enquiries, for example the tidiness of our substations.

The focus in this area has been on the optimisation of resource management within the contact centre and collaborative working between contact centre and operational staff to improve processes following feedback.

## #24. Complaints – one day (UPDATED)

We'll resolve 80% of our complaints within one day

### Background

In the instance that a customer feels the need to make a complaint, we endeavour to resolve the issue as efficiently as possible. We aim to resolve the majority of complaints within 24 hours.

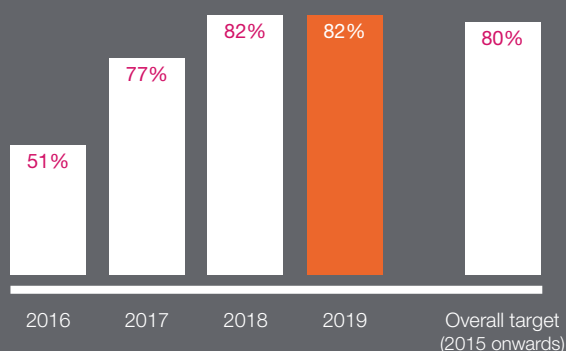
Measurement	Target	Completion date
Number of complaints resolved within one day	80%	2018 onwards

### Performance

In 2018/19 we resolved 82% of complaints within 24 hours, exceeding the target of 80% and remaining consistent with our 2017/18 performance.

Continued internal focus on our underlying processes including the allocation and monitoring of complaints has helped to drive efficient complaint resolution.

Workshops took place throughout the year which focussed on case studies of previously resolved complaints. Learnings from these sessions have been used to help drive improved complaint prevention as well as handling & resolution.



## #25. Complaints – average days to close (UPDATED)

We'll close all of our complaints, on average, within four days

### Background

The majority of our complaints are resolved within the first 24 hours; however some complaints can be more complex than others and take longer to close.

We appreciate the importance and need for continual focus on each and every one of our complaints and we therefore aim for an average resolution time for all complaints of less than four days.

Measurement	Target	Completion date
Average days to close	Average < four days	2018 onwards

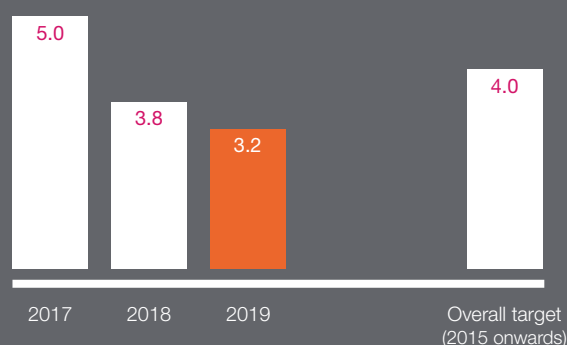
### Performance

On average, complaints were closed within 3.2 days in 2018/19, hitting the target of four days and improving on the 2017/18 performance of 3.8 days.

During the year, the key driver for performance was the impact of our dedicated team who focus on complaints over 31 days old. During 2018/19 the team worked to a point of focusing on complaints over five days old, ensuring continual focus on the resolution of these cases.

Through root cause analysis workshops between contact centre and field staff we have improved our understanding of complaints, our underlying processes and provide better management information.

This has helped to reduce the timeframe to resolve complaints. The number of complaints which took longer than five days to resolve has reduced to 1,089 in 2018/19 from 1,412 in 2017/18.



## #26. Stakeholder engagement

We'll continuously improve our stakeholder engagement

### Background

Stakeholder engagement is a cornerstone of our business and we will continue to make sure we respond to our stakeholders' changing needs.

To measure how we are progressing, we use Ofgem's evaluation of our annual stakeholder engagement submission.

Measurement	Target	Completion date
Ofgem's Evaluation of annual stakeholder engagement submission	Pass part one submission	2015 onwards

### Performance

We achieved a score of 4.54 for Ofgem's 2018/19 assessment which represented a pass.

In the feedback, Ofgem recognised that we had reviewed our strategies and that we were in the process of implementing improvements to our approach. In line with our commitment to continuous improvement, we had engaged the Money Advice Trust, KPMG and the Centre for Sustainable Energy to undertake a review and we continue to implement their recommendations.

Highlights of our activity in the year included the following:

- Participation in more than 900 engagement events with national, regional and local stakeholders in a mixture of advisory panels, workshops and face to face meetings.
- As part of our support for customers in vulnerable circumstances we have introduced a regional mapping tool and are now using this to inform our partnership strategy and engagement activity.
- In response to stakeholder feedback we have restructured our formal director-led engagement and introduced a Chief Executive Panel and independent chairs for our sustainability and consumer vulnerability panels. We have also extended our annual strategic advisory panel into regional workshops enabling us engage with and understand more localised issues.

We remain committed to improving our performance in this area and are focussing on embedding the improvements we have identified, adopting best practice from sector leaders and enhancing our approach in line with the feedback we have received.

## #27. Guaranteed Standards

We'll pay out the required Guaranteed Standard payments

### Background

Guaranteed Standard payments compensate customers where our performance doesn't adhere to regulatory standards.

Measurement	Target	Completion date
Due compensation	100%	2015 onwards

### Performance

In 2018/19 we paid out 3,671 Guaranteed Standard payments, totalling £251,560.

We will continue to proactively contact any customers who may be eligible for compensation and automatically make payments to customers who are on the Priority Services Register.



## #28. Storms

We'll pay out Guaranteed Standards even in storm conditions, retaining discretion for extreme events to balance the impact on customer bills

### Background

Following the devastating winter storms of December 2013 and February 2014 we consulted with stakeholders on the regulatory approach to making Guaranteed Standard payments to customers affected by power outages in exceptional weather events. Stakeholders told us it was appropriate to make such payments even in storm conditions. This is beyond the regulatory requirements.

Stakeholders also recognised the need to balance Guaranteed Standard payments against the costs incurred by other customers to fund this commitment. We therefore agreed that the company would retain discretion with regard to the application of this commitment to ensure that all customers are protected from the impact of significant payments in the event of an extreme event.

Measurement	Target	Completion date
Pay out guaranteed standards even in storm conditions	100%	2014-15 onwards

### Performance

In 2018/19 we had one confirmed incident with one customer entitled to a payment as they were off supply beyond the time frame set by the regulator. We have made the relevant payment.



#29. Connection quotation – single domestic connections

We'll provide a quotation after receipt of the customer's initial application on average within six working days

Background

Connecting customers efficiently and economically is an important part of our business and a crucial service for our customers. It is a service that facilitates economic growth and allows us to support delivery of our stakeholder priorities.

To allow efficient connection timescales, it is important that we provide customers with quotations in a timely manner following their initial application.

Measurement	Target	Completion date
Single domestic connections	Six working days	2015 onwards

Performance ★

We continue to outperform this commitment – our average performance in 2018/19 was four days.

During the year we produced 2,390 quotes for this group of customers.

Year	Average quotation time (days)
2016	4
2017	3
2018	4
2019	4
Overall target (2015 onwards)	6

#30. Connection quotation – up to four domestic connections

We'll provide a quotation after receipt of the customer's initial application on average within 10 working days

Background

Connecting customers efficiently and economically is an important part of our business and a crucial service for our customers. It is a service that facilitates economic growth and allows us to support delivery of our stakeholder priorities.

To allow efficient connection timescales, it is important that we provide customers with quotations in a timely manner following their initial application.

Measurement	Target	Completion date
Up to four domestic connections	10 working days	2015 onwards

Performance ★

We continue to outperform this commitment – our average performance in 2018/19 was seven days.

During the year we produced 2,335 quotes for this group of customers.

Year	Average quotation time (days)
2016	7
2017	8
2018	8
2019	7
Overall target (2015 onwards)	10

## #31. Connection quotation – all other connections

We'll provide a quotation after receipt of the customer's initial application on average within 25 working days

### Background

Connecting customers efficiently and economically is an important part of our business and a crucial service for our customers. It is a service that facilitates economic growth and allows us to support delivery of our stakeholder priorities.

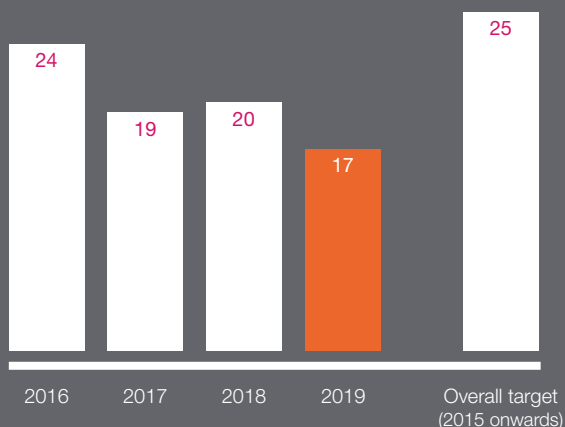
To allow efficient connection timescales, it is important that we provide customers with quotations in a timely manner following their initial application.

Measurement	Target	Completion date
All other connections	25 working days	2015 onwards

### Performance ★

We continue to outperform this commitment – our average performance in 2018/19 was 17 days.

During the year we produced 8,537 quotes for this group of customers.



## #32. Connection completion – single domestic connections

We'll complete the connection after agreeing terms with the customer on average within 30 working days

### Background

Connecting customers efficiently and economically is an important part of our business and a crucial service for our customers. It is a service that facilitates economic growth and allows us to support delivery of our stakeholder priorities.

After agreeing terms with a customer, it is important that we provide a completed connection as efficiently as possible.

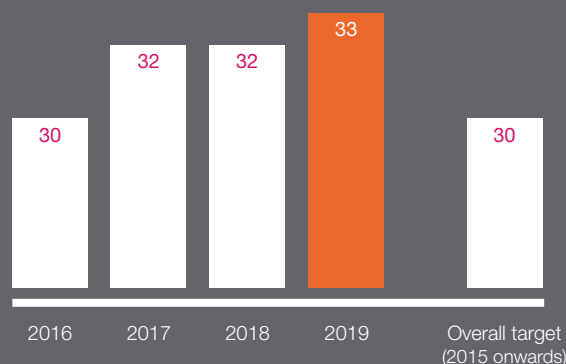
Measurement	Target	Completion date
Single domestic connections	30 working days	2015 onwards

### Performance ✖

Our average performance in 2018/19 was 33 days – whilst performance remains ahead of the Ofgem target we haven't quite managed to meet our stretching commitment target.

During the year we completed 677 connections for this group of customers.

We will continue to identify actions to reduce the time it takes to complete connections.





### #33. Connection completion – up to four domestic connections

We'll complete the connection after agreeing terms with the customer on average within 40 working days

#### Background

Connecting customers efficiently and economically is an important part of our business and a crucial service for our customers. It is a service that facilitates economic growth and allows us to support delivery of our stakeholder priorities.

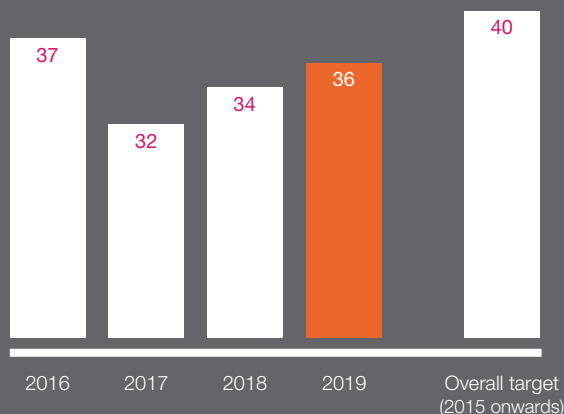
After agreeing terms with a customer, it is important that we provide a completed connection as efficiently as possible.

Measurement	Target	Completion date
Up to four domestic connections	40 working days	2015 onwards

#### Performance ★

We continue to outperform this commitment – our average performance in 2018/19 was 36 days.

During the year we completed 627 connections for this group of customers.



### #34. Connection completion – all other connections below extra high voltage

We'll complete the connection after agreeing terms with the customer on average within 50 working days (from when the customer is ready)

#### Background

Connecting customers efficiently and economically is an important part of our business and a crucial service for our customers. It is a service that facilitates economic growth and allows us to support delivery of our stakeholder priorities.

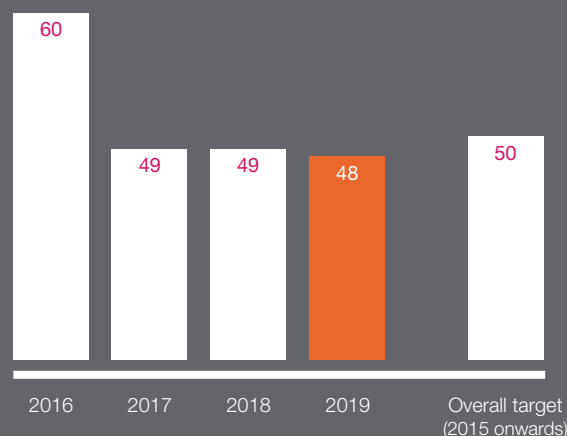
After agreeing terms with a customer, it is important that we provide a completed connection as efficiently as possible.

Measurement	Target	Completion date
All other connections below extra high voltage	50 working days (from when the customer is ready)	2015 onwards

#### Performance ✓

We continue to outperform this commitment – our average performance in 2018/19 was 48 days.

During the year we completed 316 connections for this group of customers.



## #35. Engagement – Incentive on connections engagement

We'll continuously improve our stakeholder engagement for connections customers

### Background

The Incentive on Connections Engagement is a penalty-only incentive that requires us to engage with our stakeholders and make commitments to address their issues and deliver against those commitments. It is assessed annually by Ofgem.

Measurement	Target	Completion date
Incentive on Connections Engagement	No penalty	2015 onwards

### Performance

Overall, we have worked hard to deliver this commitment and we are pleased to report that Ofgem's assessment for 2018/19 was again positive.

Engagement this year has been successful with 100% of stakeholders rating our events as "useful" or "very useful".

We have completed all actions against our 2018/19 workplans. Workplans, reports and updates can be found on our website in the dedicated section:

[www.enwl.co.uk/ice](http://www.enwl.co.uk/ice)

## #36. Guaranteed Standards of performance

We'll meet the regulatory standards of performance

### Background

There are a number of Guaranteed Standards of Performance that cover our provision of quotes, contacting customers, commencing and completing work on site. If we fail to meet these standards we make a payment to the customer affected.

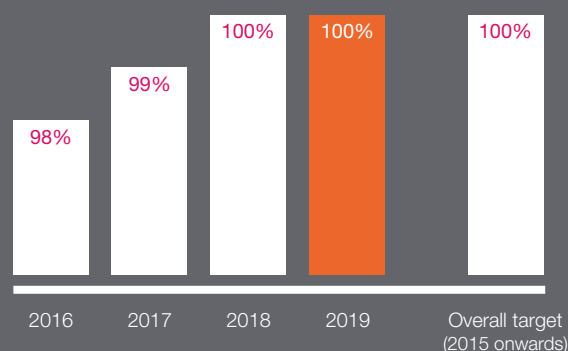
Measurement	Target	Completion date
Guaranteed Standards of performance	100%	2015 onwards

### Performance

Guaranteed Standards of Performance continue to be an important focus and we are pleased to report our best ever performance in this area.

We have reduced the number of failures in each year of the current price control (2015-2023), improving on the 338 failures in 2015/16 to 22 in 2018/19.

The 22 failures compared to the 20,857 services delivered forms the basis of our performance rating.



## #37. Reduce carbon footprint

We'll reduce our carbon footprint

### Background

Carbon footprint measures the impact of our business operations on the environment. This is calculated excluding electrical losses; the difference between energy entering the network (generation) and energy exiting the network (demand).

Measurement	Target	Completion date
Tonnes of carbon dioxide equivalent (tCO <sub>2</sub> e)	10% reduction on 2015	2020

### Performance ★

In 2018/19 our carbon footprint was 20,417 tCO<sub>2</sub>e against the target of 21,974 tCO<sub>2</sub>e. This outperforms the 2015 level by 16%.

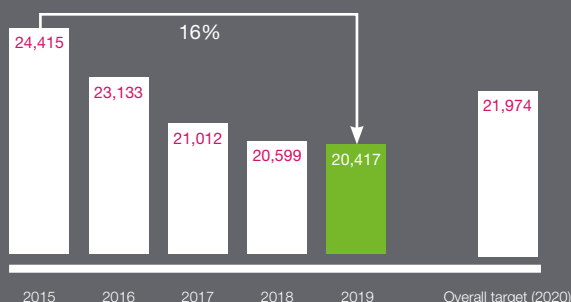
Our regional stakeholders are setting ambitious carbon targets. To support this we have created our 'Leading the North West to Zero Carbon' plan articulating how we will lead and encourage businesses, our customers and our colleagues on the decarbonisation journey. This includes our plan to further reduce our carbon emissions, with targets tougher than the original commitment made in 2014.

The plan can be found on our website in the dedicated section:

[www.enwl.co.uk/zerocarbon](http://www.enwl.co.uk/zerocarbon)

Reduced buildings' energy has driven our improved performance, along with energy reduction behaviour from colleagues and improved vehicle efficiencies. Further investment in our offices and depots has increased fuel efficiency, including replacement of inefficient lighting with LED lighting, introduction of energy efficient heaters and time limited light switches, and installation of passive infrared sensors.

Portable generators are sometimes used to maintain supplies when customers go off supply, either due to a fault, or a planned supply interruption. The fuel used by these generators contributes to the business carbon footprint. To minimise customer disruption and to better support those who are vulnerable, our policy on the provision of generation has been updated to increase their usage. This will put upward pressure on our carbon footprint and we will do everything we can to offset this increase.



## #38. Reduce losses

We'll reduce electrical losses resulting from the operation of our network

### Background

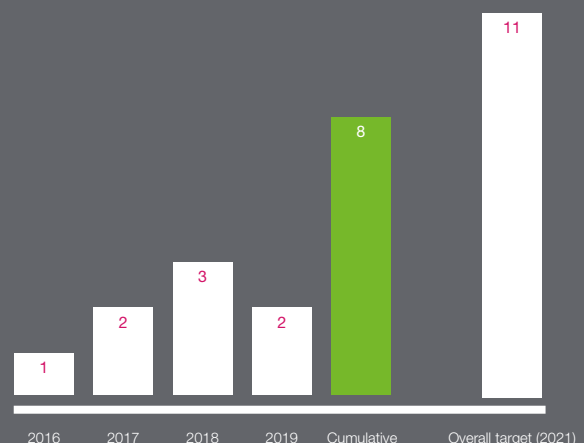
We lose some of the electricity we distribute as it flows through our network. Whilst we can't eliminate these electrical losses entirely, we can take steps to reduce them. This is achieved by installing more efficient equipment on our network to replace older, less efficient equivalents. This commitment is based on a programme that will replace some of our transformers with lower loss models.

Measurement	Target	Completion date
Annual gigawatt hours (GWh) saved	11	2021

### Performance ●

In 2018/19 147 transformers were replaced with lower loss models, taking the total progress to 467, which will create an annual saving of 8.4GWh from 2019/20.

The programme is expected to complete in 2019/20 to deliver an annual saving of 11GWh from 2020/21.





## #39. Reduce oil lost from cables

We'll reduce the amount of fluid lost from cables

### Background

Fluid filled cables have been used since the 1960s. The fluid acts as an electrical insulator. Leaks from fluid filled cables can occur and, whilst only a small percentage develop leaks, the fluid can present an environmental risk particularly if it is adjacent to a water course. The use of modern replacement fluid mitigates this risk.

We currently have approximately 410km of legacy fluid filled cable on our network. We're addressing fluid leakage from fluid filled cables by replacing them with alternative modern oil-free cabling. Where we do have leaks, we replace the fluid with biodegradable fluid.

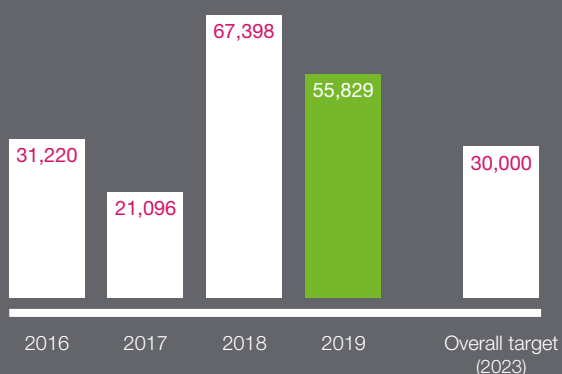
Measurement	Target	Completion date
Litres lost	<30,000 litres/ annum	2023

### Performance ●

In 2018/19 our cable fluid leakage was 55,829 litres against the target of reaching leakage of below 30,000 litres per annum by 2023.

The highest leaking circuit of 2018/19 was Burrowbeck - Spring Garden St T11 in Lancaster which leaked 9,220 litres, equating to 16.5% of our total annual leakage. The leak has now been repaired and we plan to replace this circuit before the end of the current price control period (2015-23).

An issue on our Lancaster grid supply point - Broadway circuit resulted in 5,420 litres of leakage in the year, equating to 9.7% of total annual leakage. This circuit needed to remain operational in order to retain the required network resilience due to ongoing flood defence work following the storms in 2015, which prevented the leakage being stopped earlier. This cable has now been replaced.



## #40. Undergrounding overhead lines

We'll remove overhead lines in National Parks and Areas of Outstanding Natural Beauty

### Background

There are three National Parks and four Areas of Outstanding Natural Beauty in our region and the overhead lines that run through them can be visually intrusive.

We are working with the relevant authorities and other stakeholders who identify and prioritise potential undergrounding schemes.

Measurement	Target	Completion date
km removed	80km*	2023

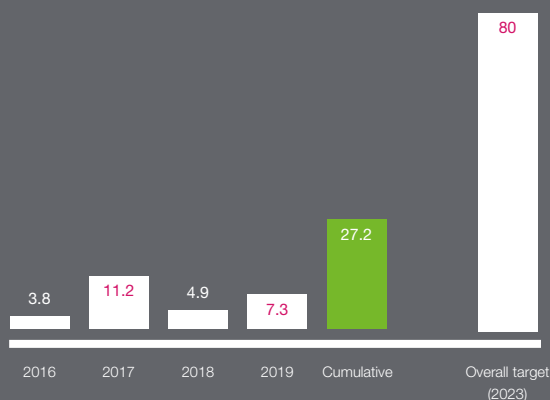
### Performance ●

In 2018/19 we have undergrounded 7.3km of overhead lines, taking the total progress to 27.2km. The total progress equates to 34% of the 80km target.

We have continued our work with the National Parks and Areas of Outstanding Natural Beauty throughout the year and have removed overhead lines from areas within the Forest of Bowland, the Peak District and the Lake District.

We continue to identify additional schemes with our partners and deliver the workbank we have developed. We still intend to spend the full entitlement for this activity included in the RIIO-ED1 settlement.

The selection of sites is driven by our stakeholder partners and is ultimately driven by improvement in visual impacts rather than length. Therefore we aim to prioritise the beneficial impact rather than mere lengths.



### #43. Driving transition to DSO (NEW)

We'll deploy Active Network Management (ANM) across all of our high voltage network

#### Background

Traditionally, distribution networks were designed to meet worst case demand and generation scenarios in order to remain stable under any load or generation condition.

The drive towards a low carbon economy relies on connecting much more renewable generation and low carbon technology to the network quickly and without the need for expensive and disruptive network reinforcement.

By placing additional load measurement sensors at strategic points in the network and deploying software algorithms in our Network Management System (NMS), in conjunction with new types of flexible connection contracts, it is possible to manage flows on the network in real time by turning generation and demand up or down to match available capacity at any given time. This is typically known as Active Network Management (ANM).

Measurement	Target	Completion date
Deployment of ANM	Available across all of our HV network	2023

#### Performance

During the last year we have introduced a number of new types of flexible connection contracts which allow customer import and export capacity to be varied to match network conditions at any given time.

In addition we have designed ANM software algorithms with our NMS supplier. These software algorithms will be developed and tested over the coming months and deployed in our Network Management System.

Once implemented, the ANM algorithms will monitor the available network capacity and vary customer demand and generation in real time through flexible connection contracts in order to prevent network limits being exceeded.

In essence ANM will automatically manage available network capacity dynamically, smoothing out peaks and troughs. This will facilitate the connection of more renewable and low carbon technology without the need for network reinforcement by using all the available capacity inherent in the existing network infrastructure.

### #44. Facilitating expansion of electric vehicles (NEW)

We'll help domestic properties to connect low carbon technologies to the network

#### Background

Economic growth coupled with decarbonisation is driving an increased demand for electricity as an energy source. The public is relying more and more on electricity for all elements of their lives, from smart technology in homes, to electric vehicles (EVs). It is therefore vital that we are supporting our customers to transition to a zero carbon economy by connecting low carbon technologies such as renewable energy, heat pumps and electric vehicles to the grid.

As a key part of our responsibility to lead the North West to Zero Carbon we need to help our customers with their move to electric vehicles. By 2040 the government will ban the sale of vehicles with internal combustion engines.

Measurement	Target	Completion date
Connection of low carbon technologies	Swiftly facilitate all connections	2023

#### Performance

We are undertaking a programme of investment with domestic properties in readiness for adoption of low carbon technologies at scale.

Where properties have looped services (where homes are connected to one another rather than individually to the network) we will intervene to ensure that all properties have the ability to install multiple low carbon technologies swiftly.

We are also supporting our customers by developing a range of guides which will demystify such technologies and give them a step-by-step approach to getting low carbon technologies connected.

## #45. Enabling our communities to take part in the low carbon energy transition (NEW)

We'll support the development and delivery of community and local energy in our region

### Background

Community energy is the collaboration of customers to collectively generate, purchase, store, sell and consume their own energy.

Electricity North West has a dedicated stakeholder engagement programme aimed at community and local energy groups and as a result we have developed our understanding of the main issues facing the sector.

Measurement	Target	Completion date
Identification of location on our network where community and local energy can be deployed	Reporting back on viability of approach and identification of viable sites	2019

### Performance ●

In response to our conversations with stakeholders we have developed a community and local energy strategy and developed our powering our communities fund which supports projects that put community and local energy at the heart of their communities.

The Powering our Communities Fund is supporting projects that target vulnerable customers and community groups investigating new business models for energy efficiency and low carbon technology deployment.

Work is ongoing to look at the viability of using community and local energy to help with reliability.

Our Community and Local Energy Strategy, published in May 2019 and our 2019 Annual Report can be found on our website in the dedicated section:

[www.enwl.co.uk/communityandlocalenergy](http://www.enwl.co.uk/communityandlocalenergy)

We have also published our Distribution Future Electricity Scenarios (DFES) document to help with the identification of areas on the network that either need or are likely to need flexibility in the future and where community and local energy can be deployed.

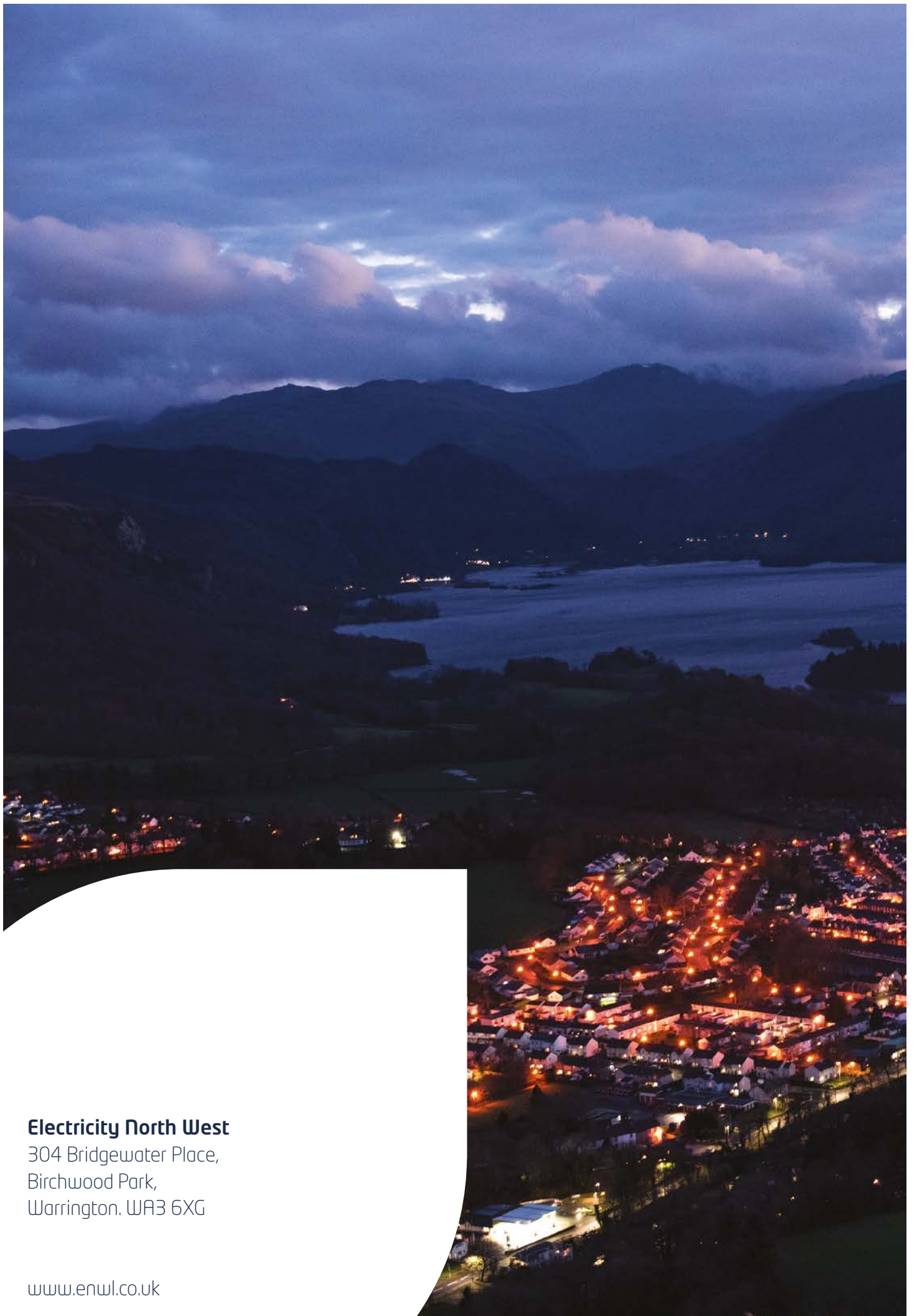
The document and associated webinar can be found on our website in the dedicated section:

[www.enwl.co.uk/dfes](http://www.enwl.co.uk/dfes)

We have also promoted calls for flexible services to community and local energy groups.







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