

**electricity
north west**

Bringing energy to your door



Cumbria Stakeholder Advisory Workshop

25th September 2020

Stay connected...



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Welcome

Paul Bircham

Regulation and Communications Director

Stay connected...

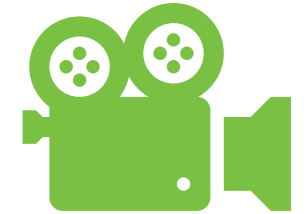


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What we'd like to cover today



					
Welcome & intro	Our network	Our customers	Break	Environment and decarbonisation	Q&A



We will be recording the session

Sessions will include

Current performance and investment

Future priorities and tension areas

Questions and debate via chat

We distribute electricity across the North West



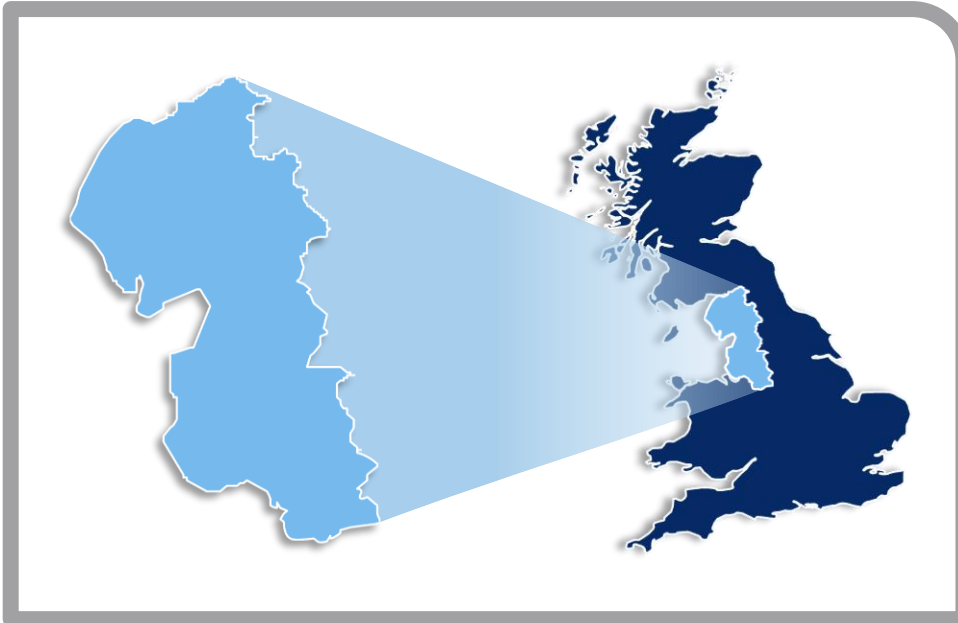
5 million



2.4 million



23 terawatt hours



£12.3 billion assets, including 56,000km of network

We invest £1m in the network every day

19 grid supply points; 96 bulk supply substations;
363 primary substations; and 33,000 transformers

We are a regulated monopoly
Customers cannot choose their network company

**POWER CUT?
CALL 105**





We made **40 promises to our customers** when we agreed our Business Plan for RIIO-ED1 (2015-2023).

Our Business Plan Commitments are based on seven areas that stakeholders told us were important.

There were 41 commitments to report on for 2019/20

- We agreed five new and two amended outputs with our stakeholders in 2018 and 2017
- Offset by the completion of six others delivered by March 2019

Performance against our Business Plan Commitments remains at a high level. Majority are on target.

- Ten commitments where our performance is significantly better than target
- One which is currently behind target with an improvement plan in place.

Business performance in 2019/20 – Ofgem perspective



- ENWL is the **only network operator group in the country to have achieved green ratings from Ofgem in all categories** for the last three consecutive years (to 2018/19).
- Our performance against a wide range of metrics **meets or exceeds Ofgem’s expectations**, and we are delighted that this has been recognised.
- Based on our improved performance in 2019/20, we expect to retain our green rating in all categories for 2019/20.

Reliability & availability	Connections	Social	Customer satisfaction	Environment	Safety
					
Number of interruptions	Time to quote	Stakeholder engagement	Broad measure of customer satisfaction	Business carbon footprint	HSE obligations
Length of interruptions	Time to connect		Complaints	SF ₆ emissions	
	Guaranteed standards of performance			Fluid filled cables	

Key

- Performance on or exceeding target
- Performance uncertain to meet target
- Performance is behind target



- Now we are approaching the end of ED1 our focus has shifted from updating our ED1 commitments to channelling our efforts into understanding and balancing our stakeholder needs for ED2.
- Stakeholders tell us that transition to net zero is amongst their primary concern, if it is affordable, but many are worried that the most vulnerable in society will be unable to take advantage of the change and may face increased costs.
- We continue to undertake a comprehensive programme of customer and stakeholder engagement to inform the ED2 business plan submission.
- Our Customer Engagement Group (established in May 2019) meet monthly and has ensured effective challenge of our approach and execution of developing our ED2 plan.

The Ofgem logo is displayed within a dark blue circular shape at the top of a grey, rounded rectangular box. The logo itself consists of the word 'ofgem' in a white, lowercase, sans-serif font.

ofgem

We are developing our business plan for the **FIVE** years from April 2023 to March 2028

Our role is changing



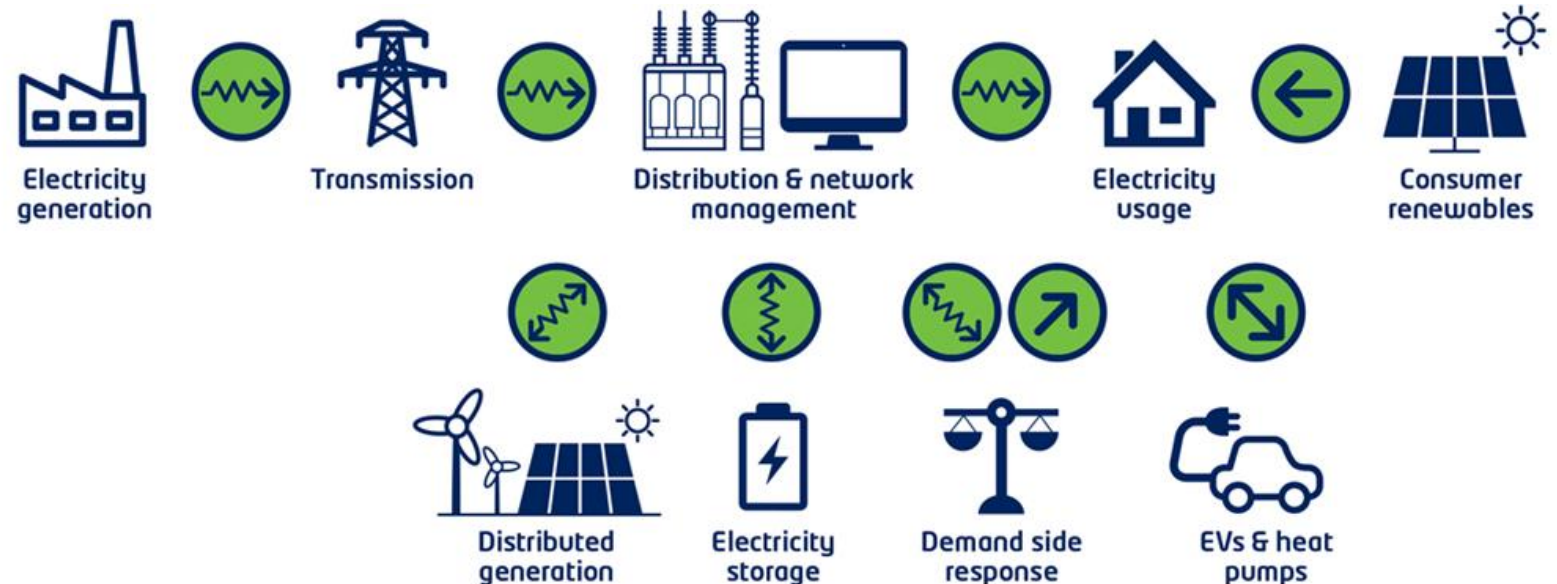
Unprecedented change lies ahead for our business and industry as we transition to Distribution System Operation (DSO)

- brings both opportunities and uncertainty that need to be managed carefully.
- means it is more important than ever that we build on the relationships that we have with our stakeholders so that together we can deliver the ambitious plans of our dynamic region.

What used to be relatively simple...



...is becoming far more complex and multi-directional





We want to hear your views

- We will ask YOU questions either by
 - **polls** - which will automatically appear on screen
 - responses in the **chat** function
- Ask US questions using the **chat function**
- Please use the **chat function** throughout to share your views and questions with us or each other. We encourage you to share your chat messages with all attendees by changing the 'To:' dropdown to 'All panellists and attendees.'
- We will be monitoring all the chat throughout and incorporate as many views as possible. We will review all comments after the session and follow up as necessary.



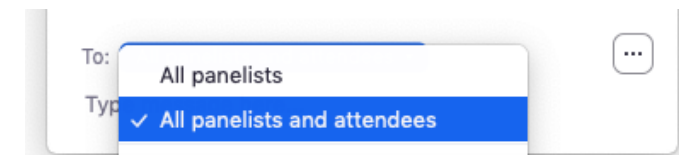
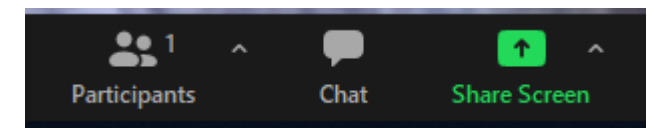
1. Test (Multiple choice)

yes

no

maybe

Submit





What type of stakeholder are you?

- Domestic customer / consumer interest group
- Housing Association or similar
- Business customer (or representative)
- Developer / connections representative
- Environmental charity or representative
- Social charity or community group
- Local Authority / government
- Academic / educational institute
- Utility representative (gas, water, electricity)
- Other

Where are you joining us from today / the area that you represent

- Greater Manchester
- Cumbria
- Lancashire
- Cheshire
- Derbyshire
- Yorkshire
- Other

How often do we engage with you?

- I regularly attend a Stakeholder Advisory Panel or expert panel
- I attend innovation, community energy and connection workshops
- I am in regular contact with ENWL
- I have occasional contact with ENWL
- I try to come along but meetings are inconvenient
- I am new to this – I've have never met or contacted ENWL before

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Our network - Cumbria

Clive Wilkinson
Operations Director

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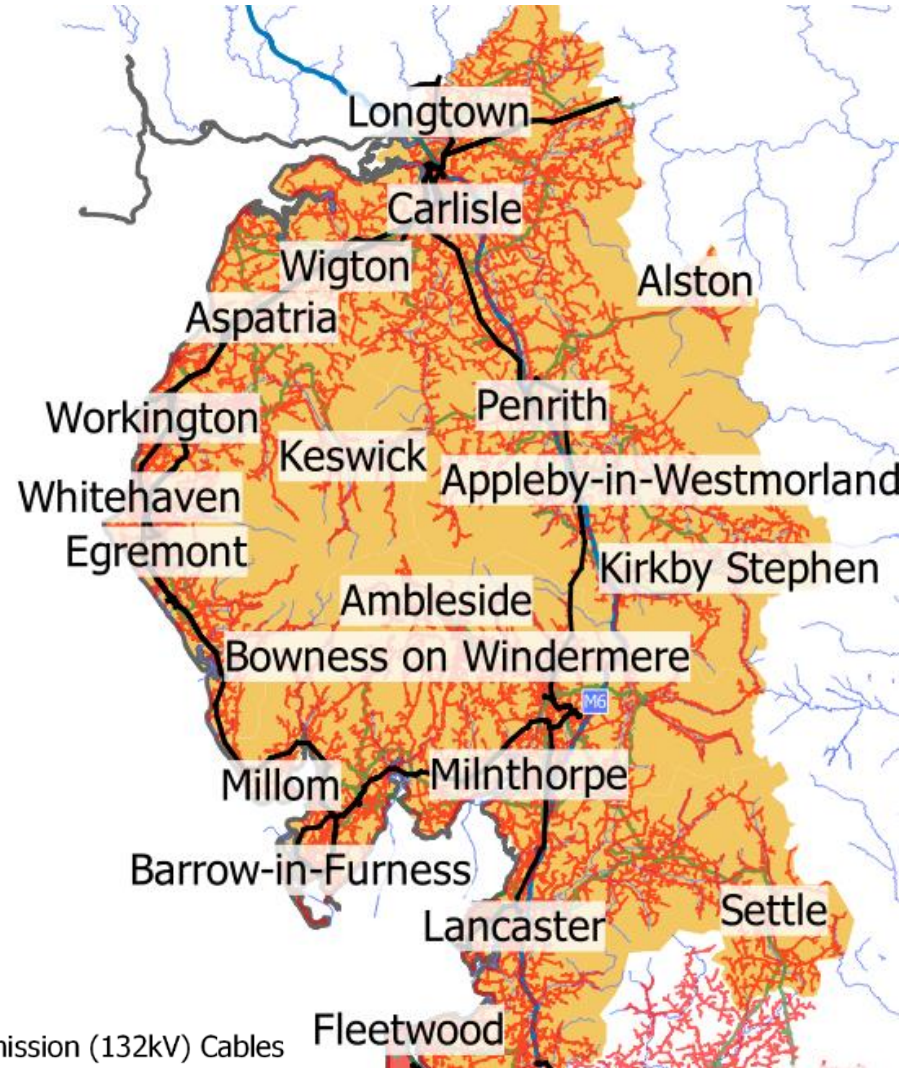


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This is what the Cumbria network looks like...



- Cables (underground and over ground)
- Substations
 - Grid Supply Points
 - Bulk Supply Points
 - Primary Sub-Stations
 - Secondary Sub-Stations
- Towers
- Telecommunications Network
- Control Room
- Other Infrastructure



Legend

- Transmission (132kV) Cables
- High Voltage Cables
- 33kV/25kV Cables
- 11kV/6.6kV Cables

The orange area highlights our operational boundaries for Cumbria

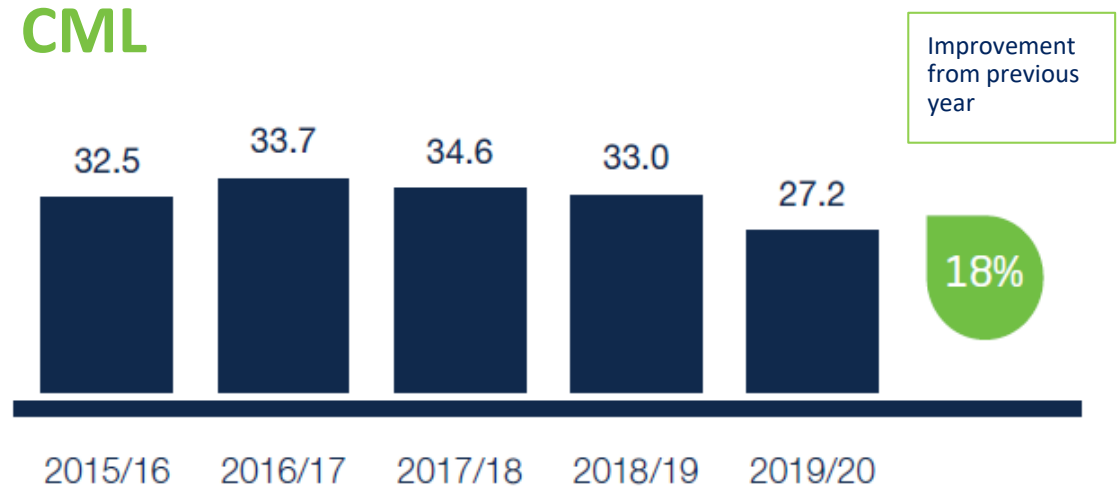
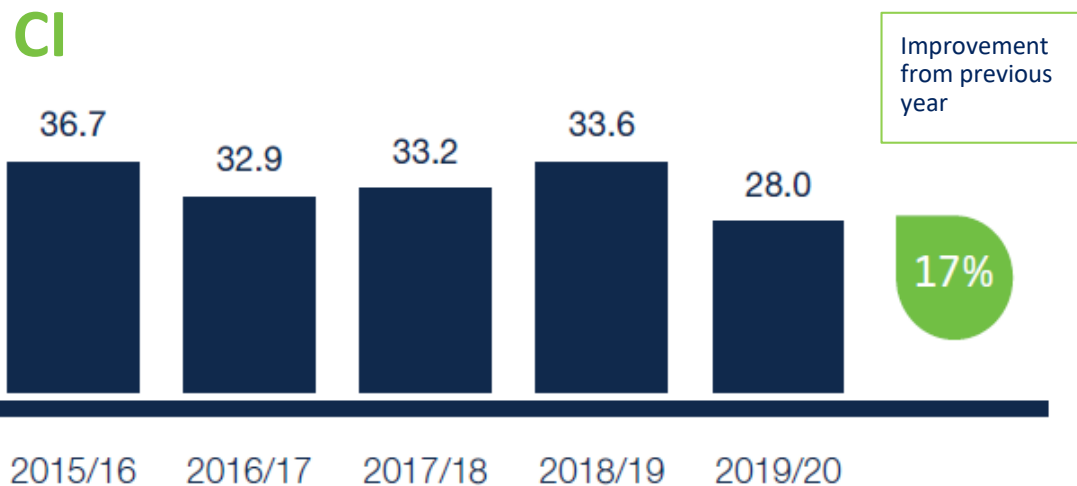
	Length (km)
Transmission	771
33kV	1,144
High Voltage	8,117
Low Voltage	4,658
Total	14,690

Our current network performance



Current business plan commitments contain ambitious plans to improve the reliability of the network, monitored using

- **Customer Interruptions (CI)** – these measure the number of interruptions and are roughly equal to the percentage of customers interrupted each year
- **Customer Minutes Lost (CML)** – measure the amount of time customers are off supply and represent the average number of minutes lost for each customer in a year
- Completion of £18m investment over the past three years - we have seen a step change in performance in CML
- In 2019/20 we delivered our best ever CI and CML performance
- We are now delivering some of the lowest levels of CI and CML across the industry.

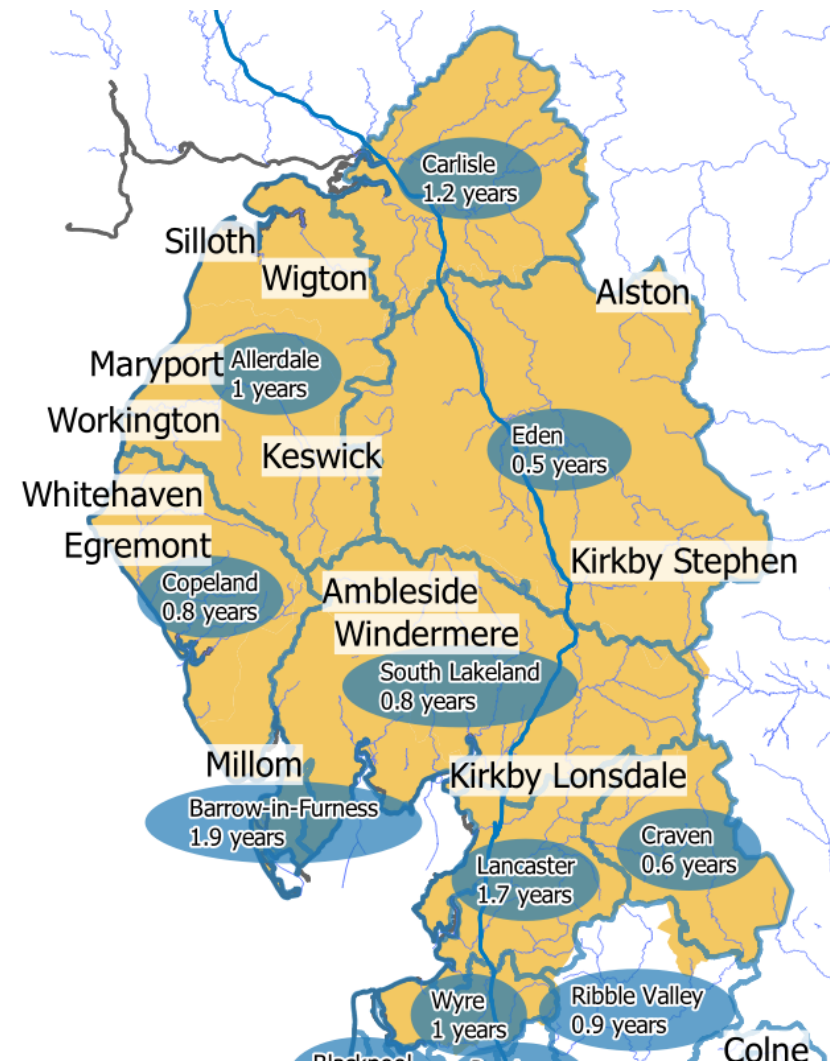


Network Performance – Reliability (Average Time Between Faults)



One measure of reliability is the average duration between power cuts which indicates the frequency of faults in each area.

In Cumbria as a whole, the average time you can expect to go between experiencing a power cut is 1 year

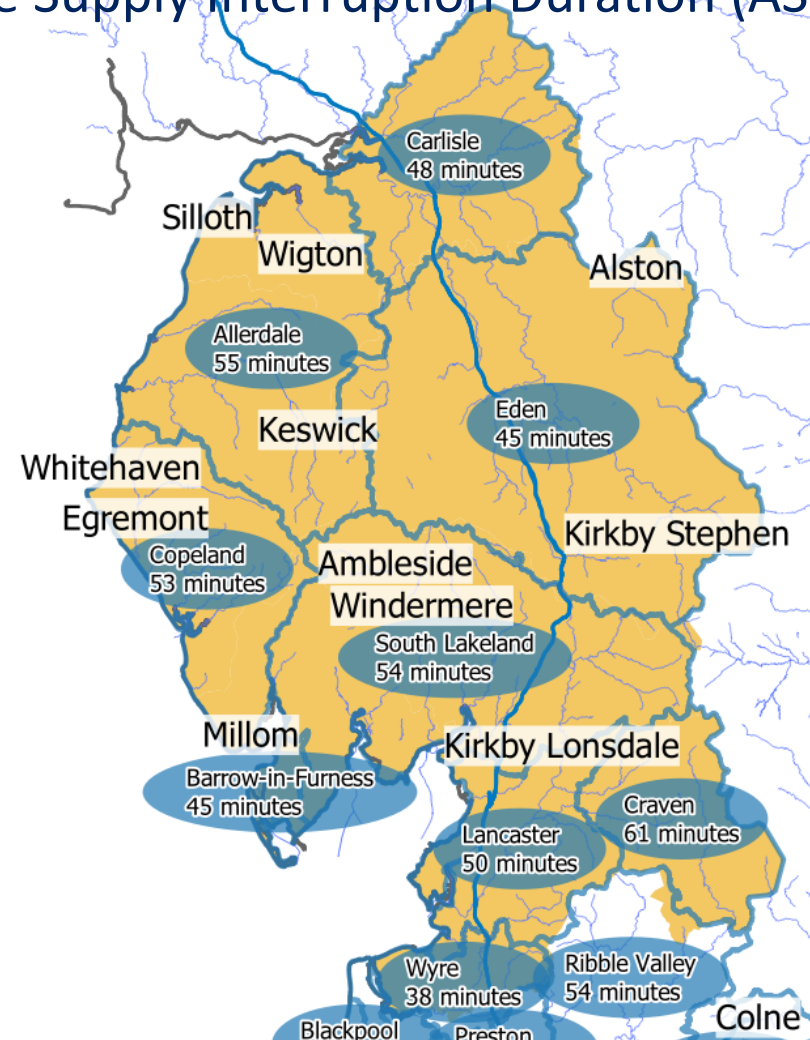


This figure is based on data from the past four years



Alternatively, we can measure reliability by the length of time you can expect to be off supply when a fault does occur – also known as Average Supply Interruption Duration (ASID)

In Cumbria as a whole, the average supply interruption duration (ASID) is 49 minutes





We continue to set stretching targets to continually improve performance levels for our customers. This will be achieved by:

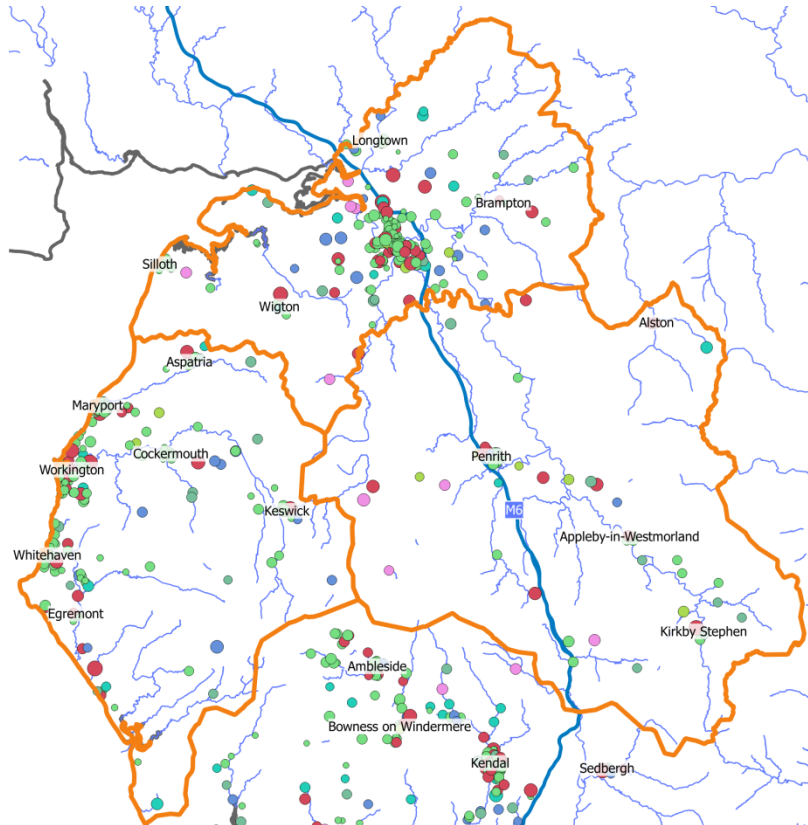
- The realisation of full year benefits and refinement of the previous Quality of Supply investments
- Continue to drive restoration performance through our operational response.
- Migration to the new Network Management System
 - six years business preparation to create an exciting new platform to operate our network and serve customers
 - capability to enhance automatic operation of the network and realise further capability in our existing network automation hardware. This will create significant additional opportunity in network reliability and how we understand and improve the network performance for our customers.
- Increasing our understanding of customers experiencing multiple interruptions and in particular, multiple short duration interruptions.

Local performance – Investment (ED1)

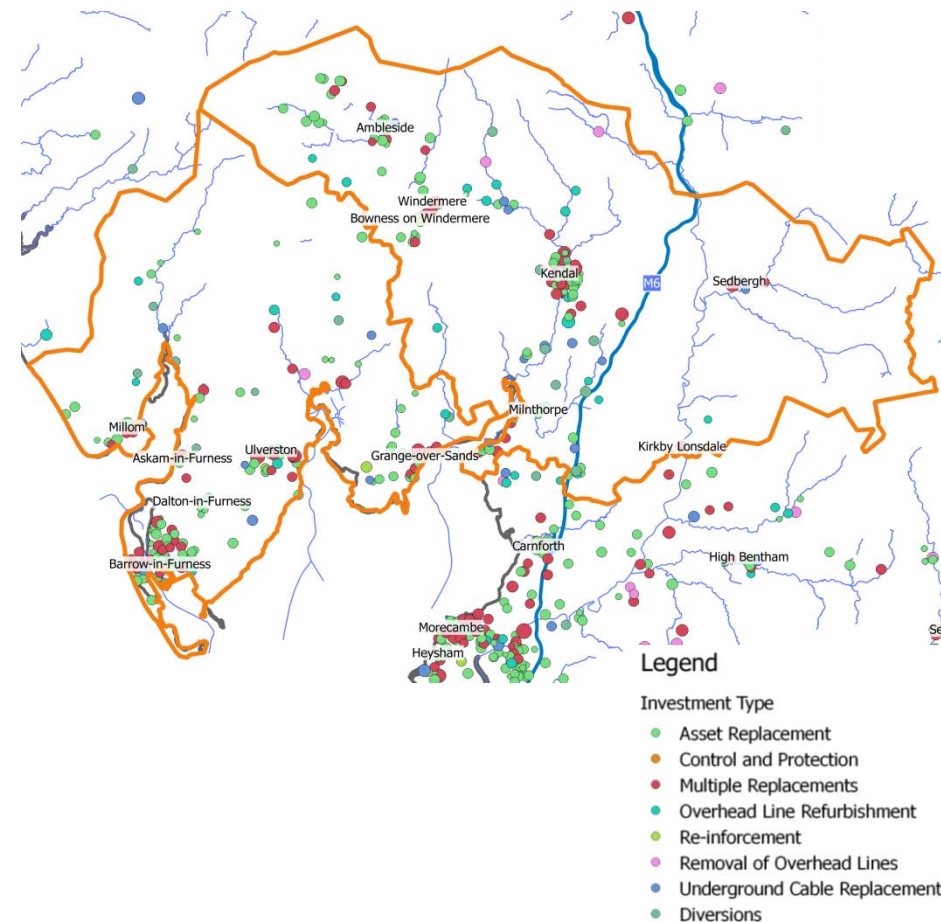


As shown in the maps below, investment broadly correlates with experienced or expected increases in population density, to cope with the additional strain on the network.

North Cumbria



South Cumbria



Notable Projects in Cumbria (ED1)



Harker 132kV switchgear replacement

We will be replacing 86 circuit breakers at our Harker substation near Carlisle which support the supplies to over 155,000 customers.

Total spend
£2.7m

Customers affected
155k

Finish date
March 2023

Carlisle grid and flood prevention work

Following a flood risk assessment and the flooding in December 2015, we have carried out flood prevention work at the substation in order to ensure the reliability of supplies to our customers.

Total spend
£1.9m

Customers affected
60k

Finish date
October 2019

Maryport primary substation replacement

Maryport primary substation is equipped with two primary transformers and a 10 panel switchboard manufactured in 1960. We are replacing the switchgear and also conducting flood prevention work at the same time.

Total spend
£1m

Customers affected
8.5k

Finish date
November 2020

Sedbergh 33kV circuit reinforcement

We are reinforcing the switchgear, a combination of switches and fuses which controls and protects the electrical equipment at Sedbergh.

Total spend
£1.7m

Customers affected
19k

Finish date
December 2020

Kendal grid transformer-replacement and refurbishment

Kendal Parkside Road substation is equipped with two transformers manufactured in 1966. After assessment of the transformers we will be replacing one, while the other one will be refurbished through our oil regeneration process.

Total spend
£1.6m

Customers affected
58k

Finish date
March 2021



We are currently developing our plans for the next price control period ('RIIO-ED2') which spans 2023-2028

- Customer and stakeholder priorities for the future will be at the heart of these plans
- We are currently exploring these priorities and will be submitting our plan to Ofgem mid 2021

Some of the key priorities for the network will include;

Leading the transition to net zero carbon

Improving performance for worst served customers

Addressing the needs of vulnerable customers

Ensuring the underlying reliability of the network

Regional differences in reliability



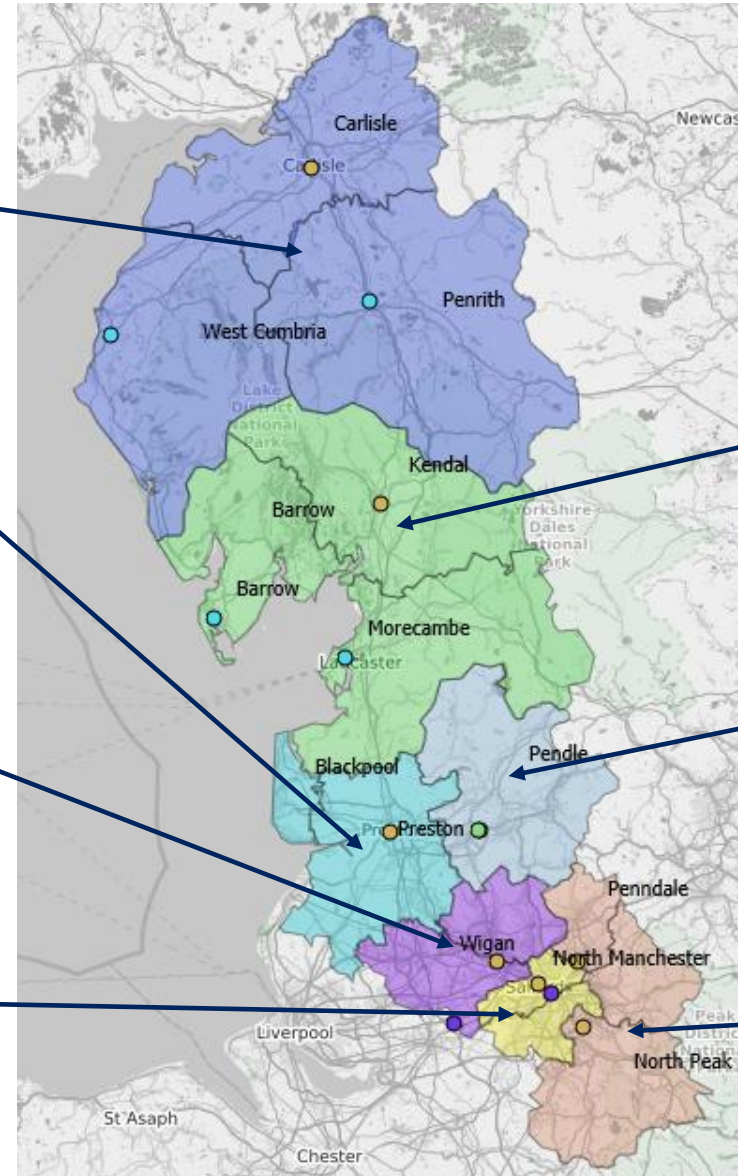
- On average customers go over three years between power cuts
- When the power goes off, it is off for an average of 90-100 minutes
- This means that **on average** a customer is without power for 30 minutes a year, or 99.995% reliability
- However, within our region there is a wide variety of experience due to:
 - the geography of the area
 - the structure of the network

North Lakes	
Customers	166,685
Frequency	1.3 years
Interruption length	77 mins
Average time off per year	60 mins

West Lancs	
Customers	362,139
Frequency	4.2 years
Interruption length	97 mins
Average time off per year	23 mins

South Lancs	
Customers	443,153
Frequency	3.4 years
Interruption length	84 mins
Average time off per year	25 mins

Manchester	
Customers	534,972
Frequency	10.2 years
Interruption length	103 mins
Average time off per year	10 mins



Whole area	
Customers	2,399,715
Frequency	3.4 years
Interruption length	90 mins
Average time off per year	26 mins

South Lakes	
Customers	179,517
Frequency	1.7 years
Interruption length	87 mins
Average time off per year	51 mins

East Lancs	
Customers	225,383
Frequency	3.5 years
Interruption length	129 mins
Average time off per year	37 mins

Peak	
Customers	487,866
Frequency	3.8 years
Interruption length	83 mins
Average time off per year	22 mins

This data is based on 2019/20 performance



Managing medium term risk

- We can plan to replace equipment before it fails and avoid all the consequences of the failure
- This means we have to inspect and maintain it and also have the means to work out what to do when
- We then replace or refurbish the units identified
- This comes at a cost

Mitigating the effect of faults

- We can also invest in technology to reduce the impact of faults and fix them more quickly
- Faults could go up but the number of power cuts may not
- We still end up replacing equipment, but only the failed items

Reliability options for ED2 (2023-28)



- Should we look to reduce, maintain or let overall risk increase over the medium term?
- Where we can make improvements;
 - Should we improve reliability a bit for a lot of customers (low cost/customer)
 - Or improve it a lot for a small number of customers (high improvement/customer)
- Should people's different use of electricity or their circumstances influence where we target improvements?





Do you think it is more important to...

Keep our
part of the
bill as low
as possible

or

Deliver an
improved
level of
reliability

A poll will automatically appear on your screen. Please select your answer and press submit.



Do you think it is more important to...

Improve
reliability a
bit, for a lot
of customers

or

Improve
reliability a
lot, for a small
number of
customers

A poll will automatically appear on your screen. Please select your answer and press submit.



Do you think we should set a business plan commitment to achieve a minimum standard of reliability for each customer in our region?

The minimum standard could be linked to the number of power cuts experienced and / the average duration.

Yes

or

No

A poll will automatically appear on your screen. Please select your answer and press submit.

Different approaches to providing resilience



Minimise exposure



Improve defences



Removal

Resistance

Resilience
Risk

Redundancy

Response



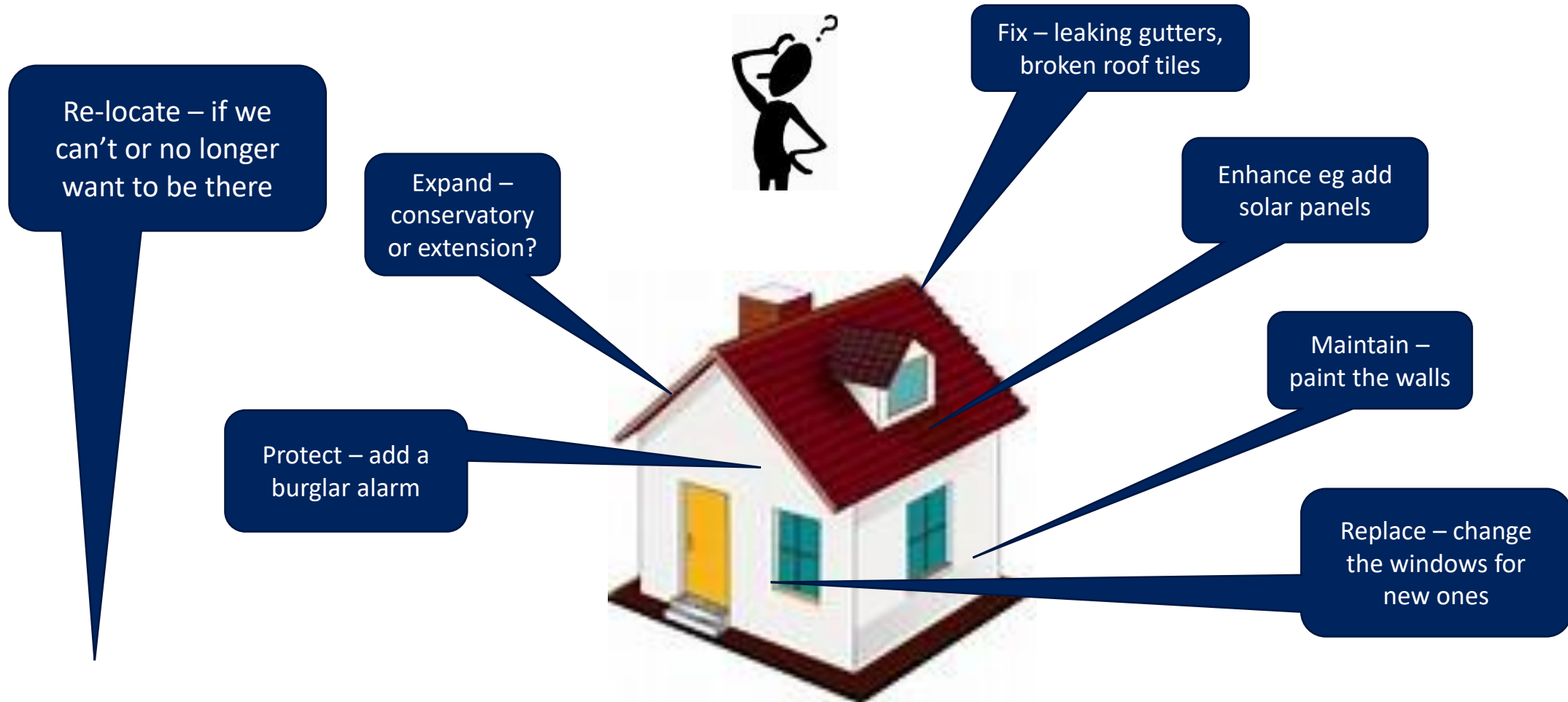
Reduce impact



Speed up recovery



The trade-offs and prioritisation we have to make on the network should be familiar;



Reducing investment in the short term may lead to larger bills in the longer term



We have the same requirements in managing the assets

Re-locate – if we can't or no longer want to be there

Expand – if people are using more electricity



Fix – brickwork, doors

Maintain – paint the equipment

Enhance eg add wall to contain oil loss

Protect – add CCTV monitoring



Replace – change the transformer for a new one

Whilst keeping costs affordable to customers

Resilience options



Given the predicted increase in severe weather caused by climate change, and potential for cyber attacks, how much of a priority should increased resilience be compared to other demands?



- What are the reasonable limits we need to design to – how much is enough?
- How tolerant would you be of prolonged power cuts in extreme circumstances?





Do you think it is more important to...

Keep our
part of the
bill as low
as possible

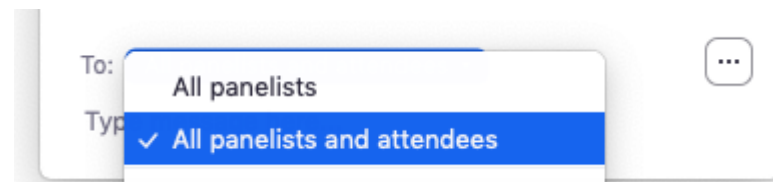
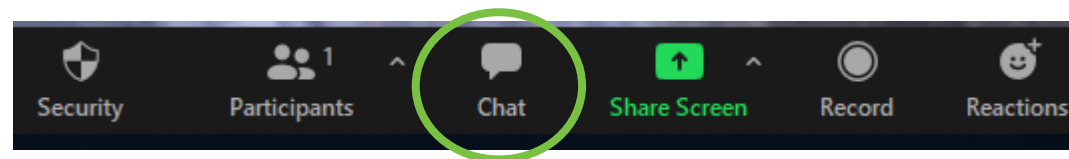
or

Invest more
now, to reduce
risk and
increase
resilience in
the future

A poll will automatically appear on your screen. Please select your answer and press submit.



Please add any further questions to the chat.
We encourage you to share your chat messages with all attendees by changing the 'To:' dropdown to 'All panelists and attendees.'



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Our Customer

Stephanie Trubshaw
Customer Director

Stay connected...

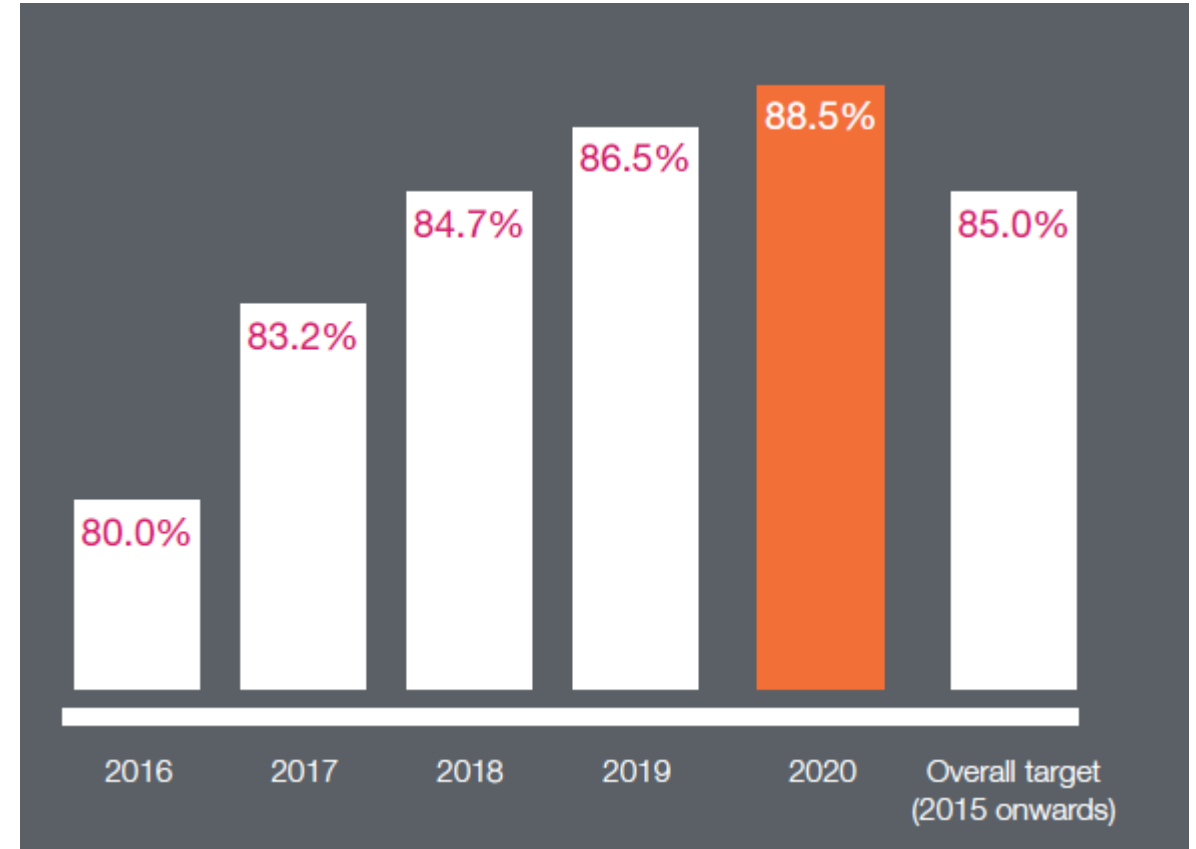


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One of our key business commitments is improvement in customer satisfaction.

- Customer satisfaction (CSAT) levels have consistently improved achieving an overall score of 88.5% in 2019/20 (compared to 86.5% in 2018/19).
- Performance since FY15/16 has increased by 8.5% through continuous improvement

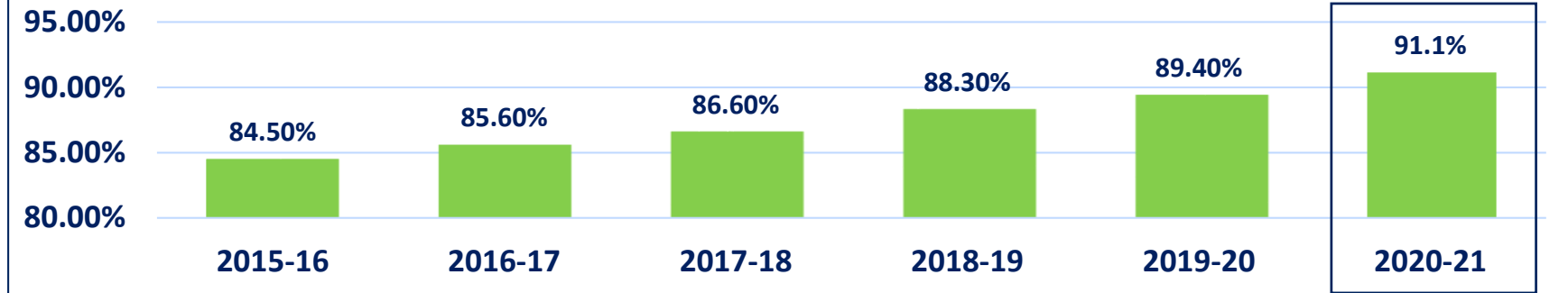


Planned Supply Interruptions

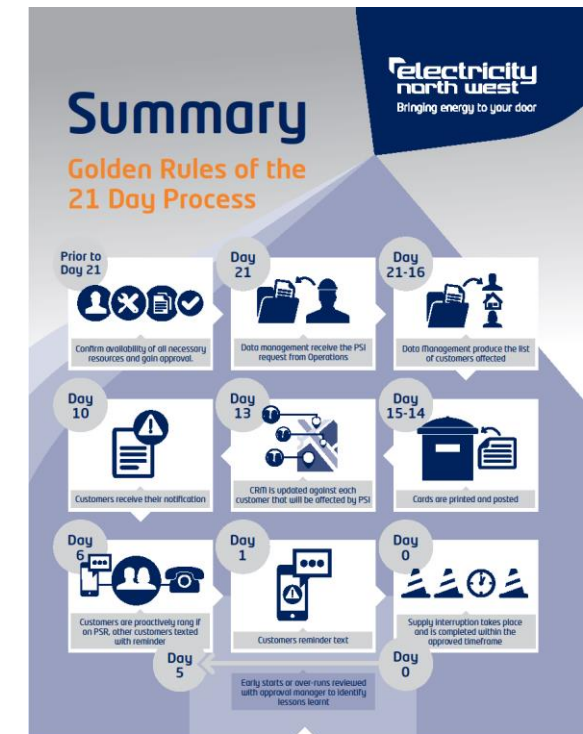


Where customers are notified that we need to turn off their electricity to undertake tree cutting or maintenance work

Planned Supply Interruptions Year on Year



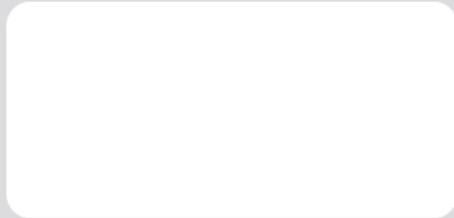
- Implementation of new processes including:
 - PSI Golden Rules in 2015
 - Winter Working Guidance 2016
- Increased notification time scale from 7 days to 10 days following customer feedback
- Introduced weekly call to discuss non-conformance with the golden rules
- Held customer focus groups to improve the notification cards
- Created a Business Priority Register – 1960 customers registered
 - Provide 30 days notice
 - Advice on preparing for a power cut and much more



PSI Maintenance Card



ADVANCE NOTICE OF A POWER CUT



We are sorry but we need to turn your power off to work safely on our network

The electricity supply to your property will be turned off on:

DATE	START TIME	END TIME

REASON FOR THE POWER CUT

PROPERTIES IMPACTED BY THE POWER CUT

Need extra assistance?
Register as a priority customer to receive extra help and support. For more information or to sign up visit www.enwl.co.uk/priority or call us on 0800 195 4141.
Remember to also check on your neighbours, they may need help too.

This work has been planned to improve the reliability of your supply for the future

Contact us
Freephone 0800 195 4141
www.enwl.co.uk
@ElectricityNW
ElectricityNorthWest

POWER CUT? CALL 105



We offer this service for FREE to help reduce the impact of power cuts on our business customers, providing extra support to prepare for and during a power cut. Join now at enwl.co.uk/business-priority-form



KEY FACTS

<p>Postponed or Cancelled</p> <p>Why might the works be postponed or cancelled?</p>	<p>Adverse weather – it isn't safe for our engineers</p> <p>Unplanned power cut – our engineers need to attend an emergency fault repair in the area</p> <p>No longer required – we have been able to fix the problem and do not need turn your power off again</p>
<p>Multiple power cuts</p> <p>Why might I need to be disrupted more than once?</p>	<p>Due to the scale of the essential work needed on the network, it may not be possible to complete all of the work at the same time so we may need to turn your power off more than once</p>
<p>Benefits of the work</p> <p>Will the work make my electricity supply better?</p>	<p>We replace 3000 pieces of equipment every year so we can continue providing a safe and reliable supply to over 5 million customers</p>



Sign up to our **Customer Voice feedback panel to win!** Help shape the experience and service our customers receive by completing short online surveys for us to gather valuable feedback. We randomly pick a winner every 3 months from customers who have completed a survey to receive a great prize!
enwl.co.uk/cvfp-sign-up

Thank you for your patience, we apologise for any inconvenience caused.

POWER CUT? CALL 105

Contact us... www.enwl.co.uk | 0800 195 41 41

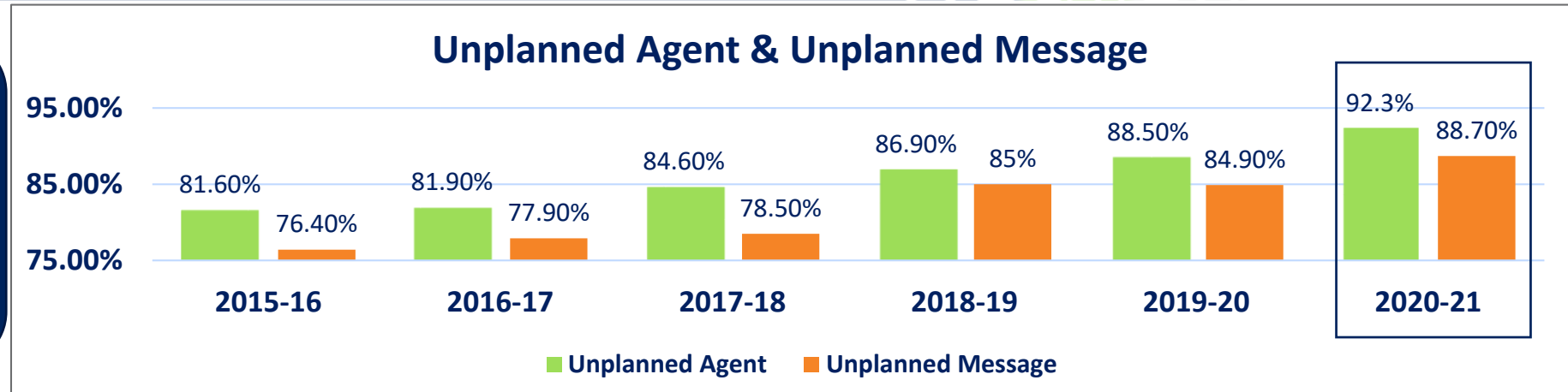


Customer feedback from almost 200 online surveys helped us to redesign the card

Faults (Unplanned Agent & Messaging)



When customers report a loss of electricity through speaking to an agent, logging it via the website or listening to an automated message



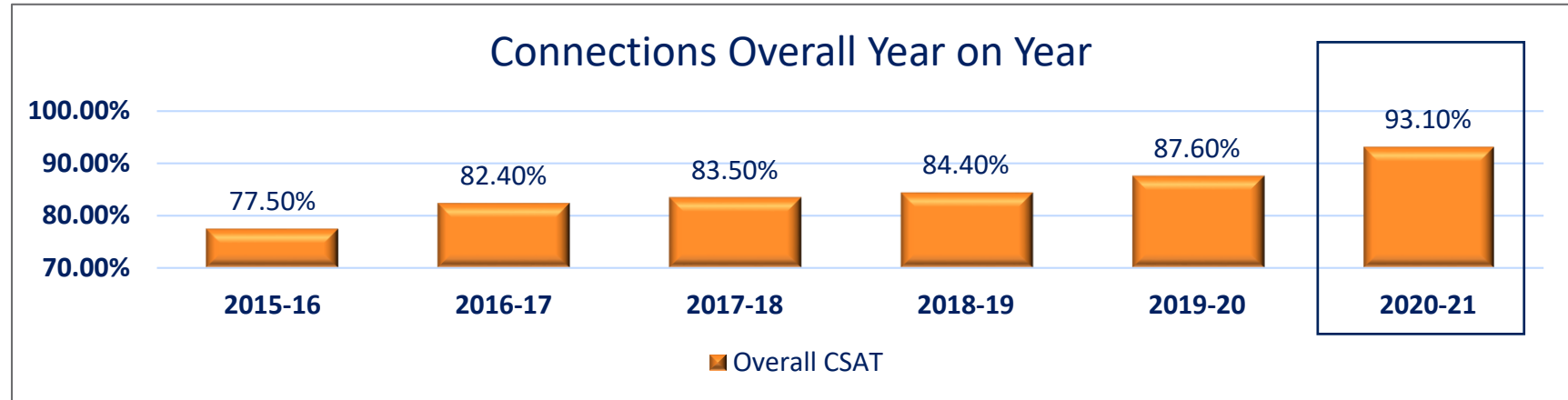
- In June 2016 created the Faults Customer Journey
 - Automated SMS and email communications triggered by updates from the field
- Realigned the process to focus on ensuring we communicate with customers who have contacted us
 - Dedicated team focused on communicating with customers
 - Clear visibility of customer interactions with the use of CRM dashboard
 - Implemented a follow up customer care call
- Focused on the accuracy of information provided to customers
 - Estimated Time of Restoration (ETR Golden Hour)
- Improved out channel offering to customers:
 - Implemented a new telephony system
 - Enhancements to the website with Track My Fault, new website pages displaying fault information



Connections Overall Performance



Quotation – Quoting customers for new electric supplies, upgrades or alterations
Delivery – Installation of the new supply, upgrades or alterations



- Refresher training for the planners on costs, value for money and the overall customer experience
- Developed a 10/10 customer journey
- Regular review of the pricing model
- Implementation of the On Line Quotations Portal (June 2019)
 - First DNO to develop this application
- Review of the Delivery model and implementation
 - All customer contact moved back in house from contractors





In January 2019 we introduced our voice of the customer panel



Sign up to our Customer Voice feedback panel to win!
Help shape the experience and service our customers receive by completing short online surveys for us to gather valuable feedback. We randomly pick a winner every 3 months from customers who have completed a survey to receive a great prize!
enwl.co.uk/cvfp-sign-up

In order to understand what our customers want we introduced the Customer Voice Feedback Panel, working with Impact

Customers complete monthly bespoke surveys on how we can improve in all service areas

We have up to 1000 customers available which assist us in making the right business decisions

What next for ED1



We continue to drive improvements through clear actions

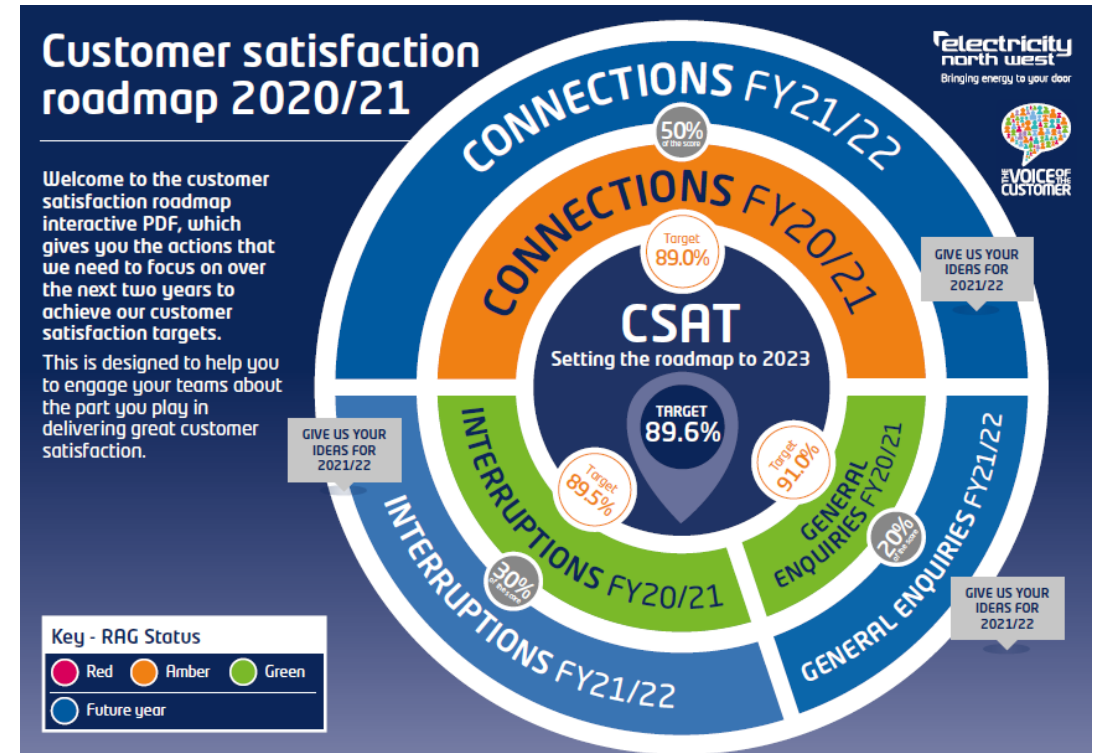
- improvement in IT systems including the implementation of a new telephony platform (STORM) to deliver a more tailored customer journey
- Customer Satisfaction Roadmap

• Interruptions:

- Continue to enhance our channel offerings to customers
 - Chatbot, Log a fault, request updates on a fault, register on the PSR, general FAQ's
 - Reviewing Crowd Service for our business
 - Option for customers to opt out of comms
- Develop telephony system to create a better customer experience
- Implement Network Management System (NMS)
- Proactive communication to customers of an unplanned fault

• Connections

- Further enhancements to the Connections On Line portal
- App development to support customers when getting site ready
- Review and update of the website pages
- Implement a single point of contact



• General Enquiries

- Further self service development across different elements of enquiries



Do you think it is more important to...

Keep our
part of the
bill as low
as possible

or

Deliver an
improved level
of customer
support

A poll will automatically appear on your screen. Please select your answer and press submit.

ENWL Strategic approach to vulnerability



- Our Vulnerable Customer Strategy ensures support is focused appropriately and helps us respond to the challenge of supporting those most in need in our region.
- Our strategy is informed by data insights and our Advisory Panel and supported by external specialist support agencies.
- We have just under one million customers on our Priority Services Register (PSR) – almost 20% of our customer base
- Support is provided through our dedicated Customer Welfare Team, over 20 external specialist support agencies, multiple partners and all our customer facing teams.



Our partnerships 2020/21



homelife carlisle
improving homes, improving lives



ACTion
with communities
in cumbria



Parents in Partnership Stockport



BURNLEY BOYS AND GIRLS CLUB



rochvalleyradio



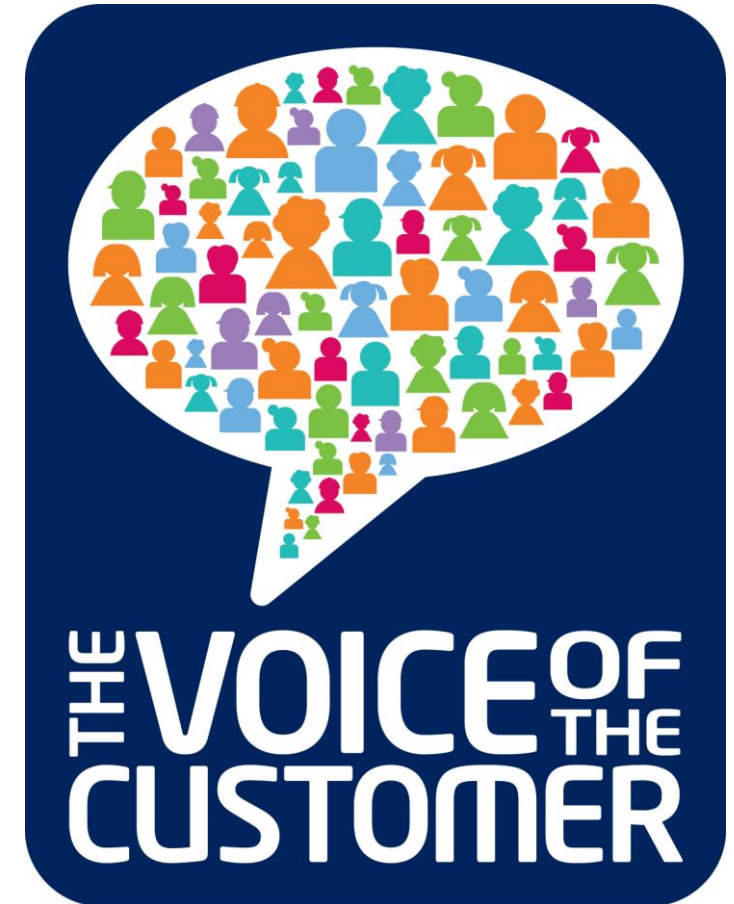
AGE CONCERN



We are working on our Consumers in Vulnerable situations strategy

We are engaging:

- Consumer Vulnerability Advisory Panels
- Customer Voice panel
- Online Community
- Deliberative Panel
- ENWL internal learnings and reviews
- Partner 1:1s
- Direct feedback from customers through our partners





Do you think we should have fuel poverty as a key focus of our strategy?

Yes

or

No

A poll will automatically appear on your screen. Please select your answer and press submit.



If yes - do you think the strategy should be fuel poverty or poverty as this is the largest factor to changing vulnerability or should we have both?

Fuel Poverty or Poverty or Both

A poll will automatically appear on your screen. Please select your answer and press submit.



Do you think it is more important to...

Do only what
customers
are prepared
to pay for

or

Do what we
believe is fair
and just to
support fuel
poor customers,
regardless of
cost

A poll will automatically appear on your screen. Please select your answer and press submit.

Coronavirus update

March to August 2020



Over

69,500

customer calls handled



Over

285,000

priority service customers
proactively contacted



Over

13,000

social media messages
inbound and outbound



Over

50,000

views of our
Coronavirus webpage



108,000

Disposable gloves distributed
to our colleagues



96%

Of workforce available to
keep power flowing



4.6 million

opportunities to see and
hear our media interviews



Over

3,000 litres

of soap and hand sanitiser
has been distributed



Updates to colleagues

77 Email and text
8,456 Visits to Volt
950 Responses on survey



Over

86,000

Facemasks available for
colleagues



Providing network reinforcement
to support **8 key locations**
across the North West, including
NHS Nightingale North



Over

£235,000

donated to our partners
and local charities



Working closely with and
providing support to over

23

North West organisations



Over

67,000

People supported through
information sharing, food
parcels and hot meals.



Over

£4,500 **500 hours**

Donated to local
charities in support of
Covid-19

Volunteered help
deliver thousands of
food bundles



Our communities

- Work with the Local Resilience Forums to coordinate support
- Ask all contacts if they are self-isolating and if they need help, with consent, pass details onto trusted partners and befriending services
- Work with community partners to direct our funding to our most vulnerable customers
- Working with RNIB to ensure information is accessible
- Colleague fundraising and donations to local hospitals and foodbanks
- Colleague volunteering at food distribution centres
- Support the Business in the Community National Business Response Network
- Supplementing partner resource and equipment to ensure help is delivered to where it's needed



[Find out more : www.enwl.co.uk/coronavirus](http://www.enwl.co.uk/coronavirus)



Our customers

- Continuing to manage the critical service 24/7 including essential maintenance and restoration in a power cut
- Aiming to keep planned interruptions <5 hours and provide a generator for extended works
- Contacting our Priority Services customers to check they are OK and ensure records are up to date
- Nightingale Hospital North West - reserve supply and automation installed
- Reinforcements to other hospitals and temporary healthcare infrastructure
- Register of known temporary Covid-19 infrastructure (i.e. PPE and sanitiser manufacturers)
- Sharing supply company information to support billing concerns
- Leading the way with Emergency Top Up Vouchers



[Find out more : www.enwl.co.uk/coronavirus](http://www.enwl.co.uk/coronavirus)



- Significant focus from partners on Covid-19 response and transient vulnerabilities
- Additional funding and appointment of Strategic Partner to increase our impact on communities
- Increasing the length of partnerships and SROI benefit measurement
- Mental wellbeing, social isolation and debt/financial support increased
- Increased support for fuel poor customers
- Using data mapping to assist in identifying high priority areas
- Volunteering efforts

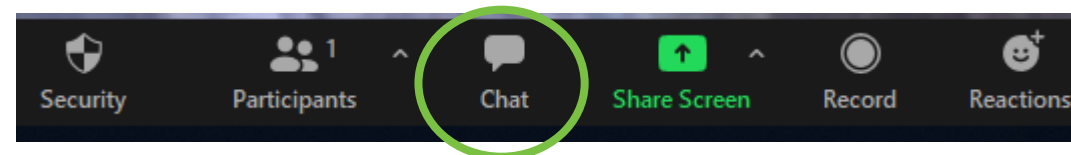




Post Covid-19, we anticipate an increase in the proportion of customers experiencing financial difficulties.

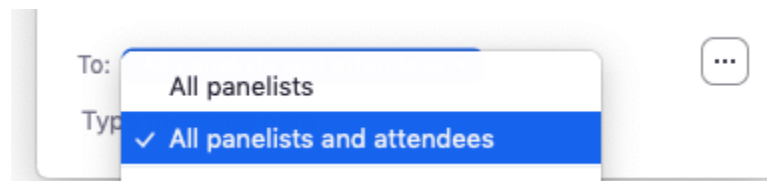
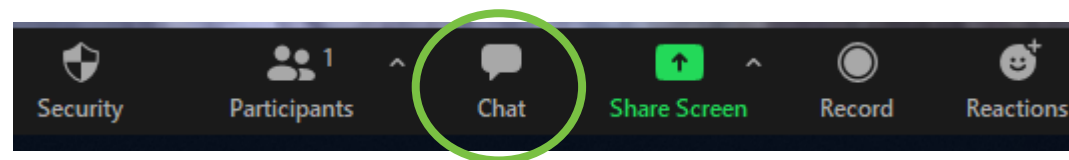
What should our role, if any, be in supporting those customers in fuel poverty?

Please type your answers in chat. You can access the chat by pressing the circled button at the bottom of your Zoom window.





Please add any further questions to the chat.
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BREAK



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Environment and Decarbonisation

Steve Cox – Engineering and Technical Director

Helen Boyle – Strategic Decarbonisation Manager

Stay connected...

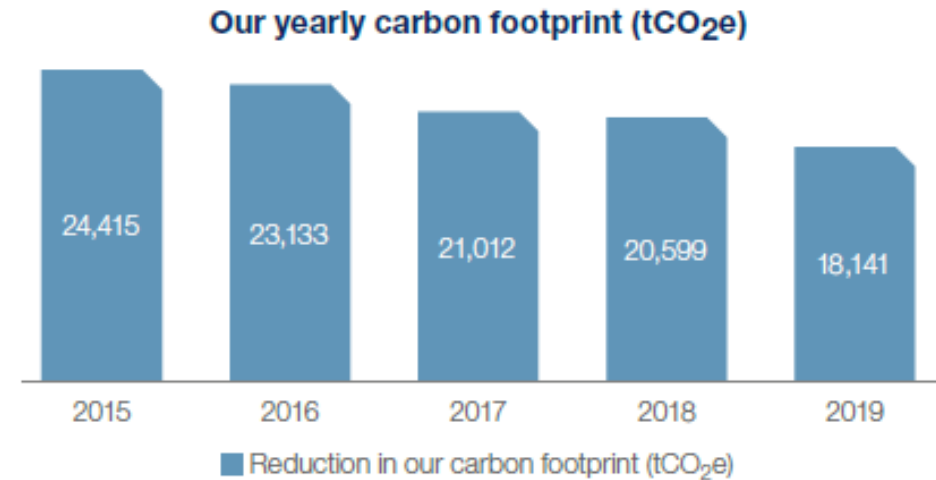


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Low Carbon Business Commitment Progress



- We have made good progress in our carbon reduction in ED1
- We have recognised the need to do more within the current business plan
- We are now in the second year of reporting on three new low carbon business plan commitments which were added through our stakeholder engagement process.



Leading transition
to DSO

Enabling electric
vehicles

Community &
local energy

Leading the North West to Zero carbon



We will play a crucial part in leading and enabling decarbonisation across the North West

- Investing an additional **£63.5m** in current price period
- Supporting regional decarbonisation targets
- Investing to support community and local energy projects
- Trusted advisor and thought-leadership
 - Our 'Top 5' research for SMEs
- Three regional energy master plans informed by **strong stakeholder collaboration** and major infrastructure suppliers, including Cadent.

zerocarbon@enwl.co.uk

www.enwl.co.uk

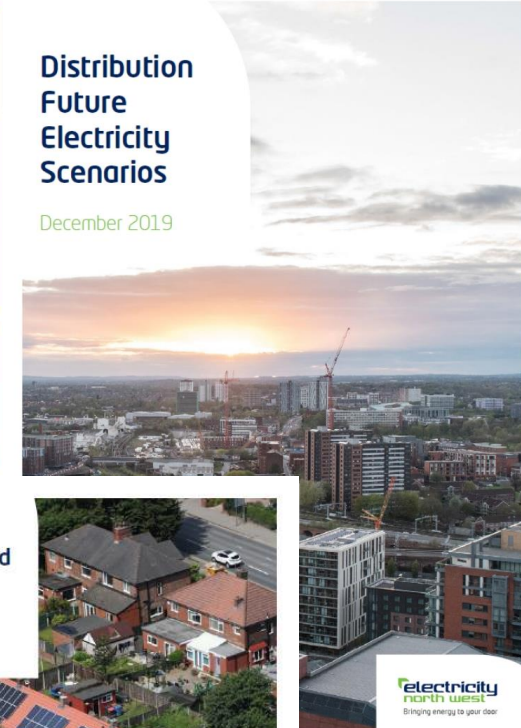
Leading the North West to Zero carbon

March 2019



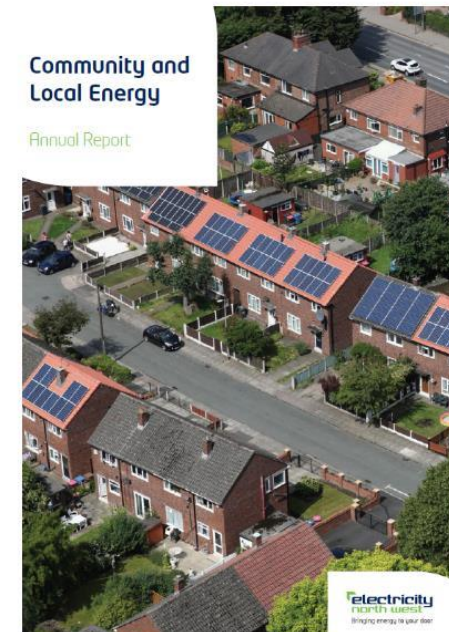
Distribution Future Electricity Scenarios

December 2019

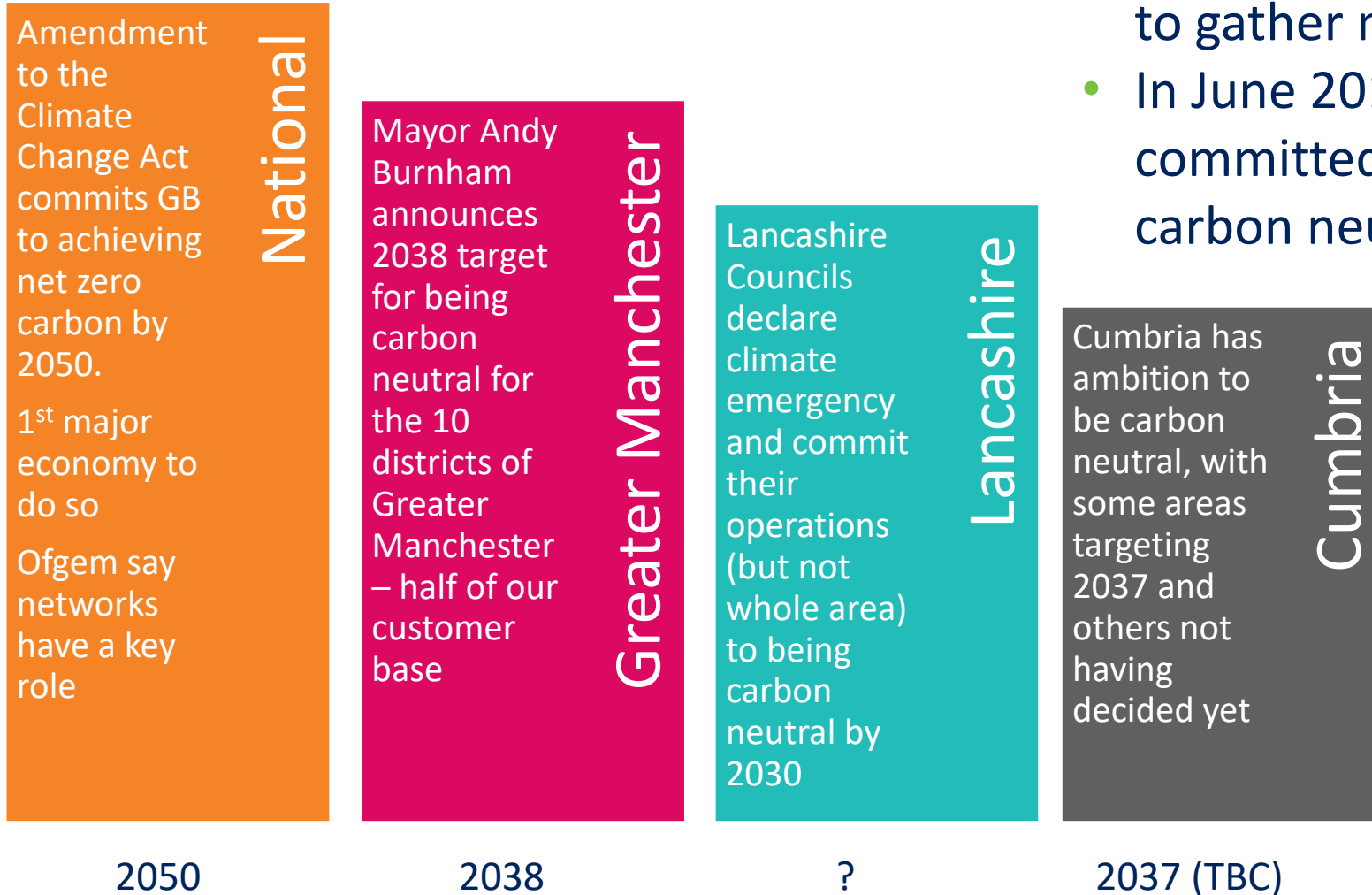


Community and Local Energy

Annual Report



National and regional positions



- The move to a net zero economy continues to gather momentum.
- In June 2019, the Climate Change Act committed to make the UK to become carbon neutral by 2050.

Some of our key regional stakeholders have set further ambitious targets to deliver this change earlier. This regional acceleration has become central to our strategic thinking.

Decarbonisation pathways



Strong Ambition

- Greater Manchester to decarbonise by 2038. ~60% of our customers are in GM.
- Lancashire and Cumbria currently working to 2050 timescale, although this could change.



Need for Action

- Timescales are challenging. Decarbonisation pathways provide near to mid-term certainties on the future of energy. Long term future is less certain and more dependent on national policy decisions, particularly on heat, which have yet to be taken.
- Collaboration will continue and work will be repeated twice every price control.



Solid Foundation

- ENWL and Cadent have worked with Navigant to produce decarbonisation pathways for GM, Lancs and Cumbria.
- Navigant developed the UK Pathways to Net Zero work for the ENA – using input from a range of stakeholders, including technology providers.
- This is based on the 'balanced scenario', which assumes a role for hydrogen and was the most cost efficient solution for consumers.



Role of grid companies

- This work informs our Distribution Future Electricity Scenarios (DFES) and RIIO-ED2 business plan, which represents £2m investment in the region.



Comprehensive Pathway

- To create the pathway for Greater Manchester, Navigant spoke to a range of stakeholders, considered strategy documents including; GM's Spatial Plan, 5 Year Environment Plan, low emission strategy, Local Industrial Strategy and GM's Plan for Homes, Jobs and the Environment and adopted a bottom-up approach informed by local data.

Evolution of energy consumption

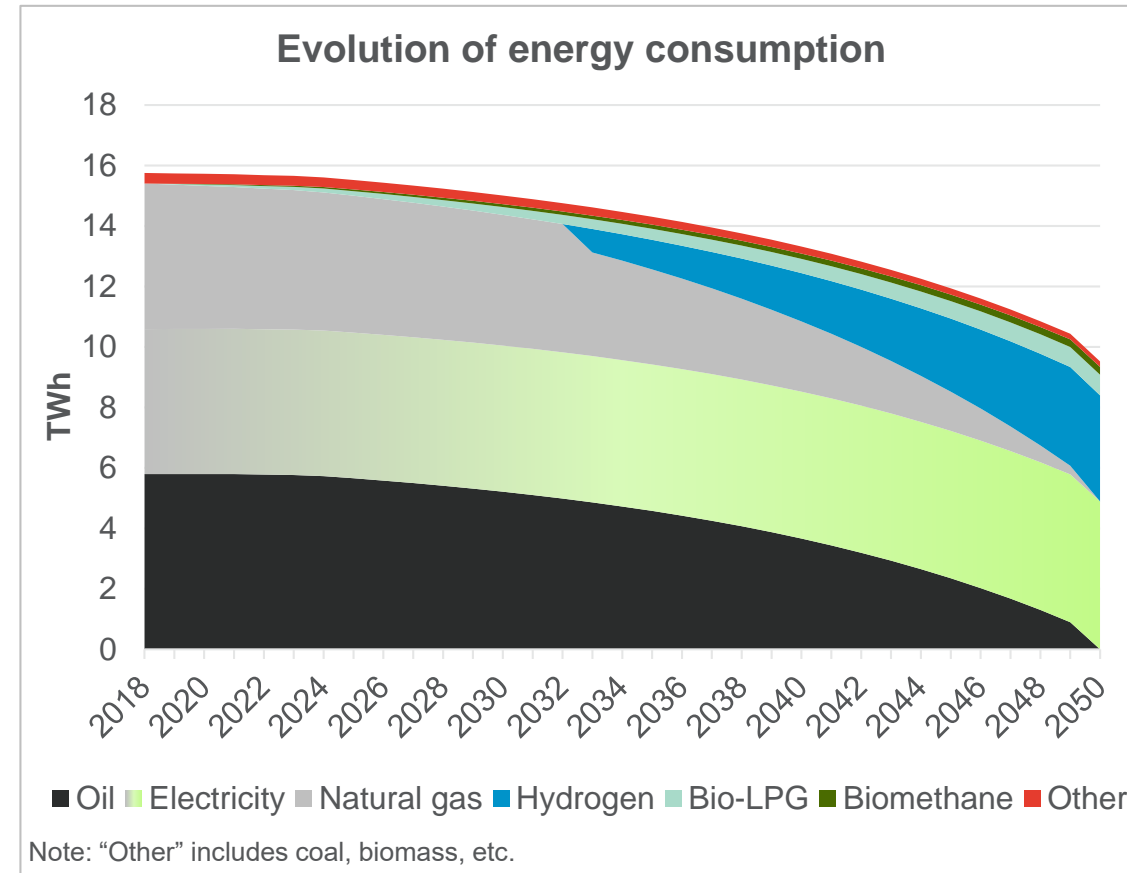
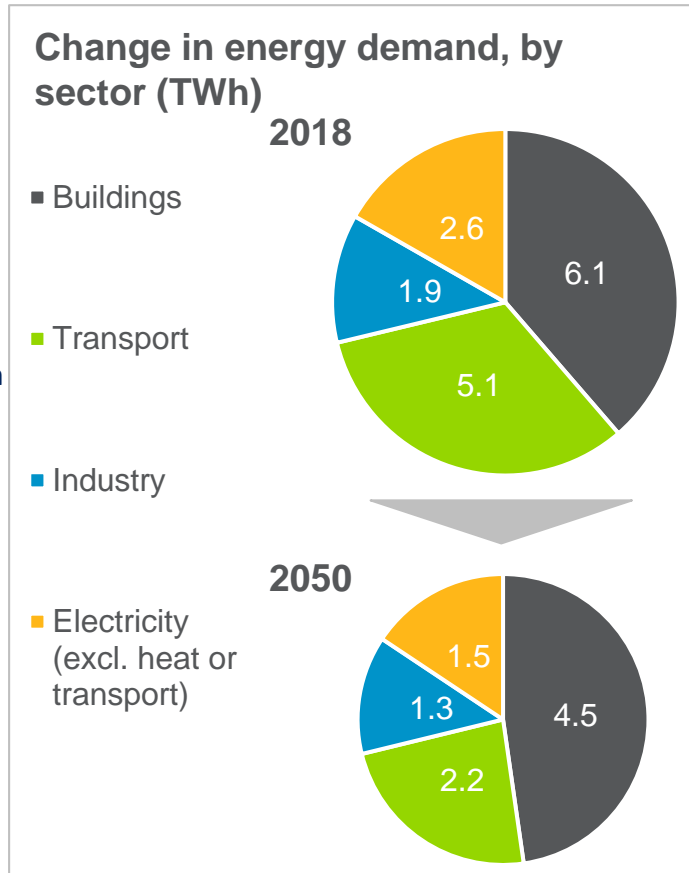


Cumbria’s local energy system is expected to undergo a profound transformation as it is decarbonised by 2050. Total energy demand will fall from 15.5TWh to 9.5TWh in 2050 on the back of improved energy efficiency.

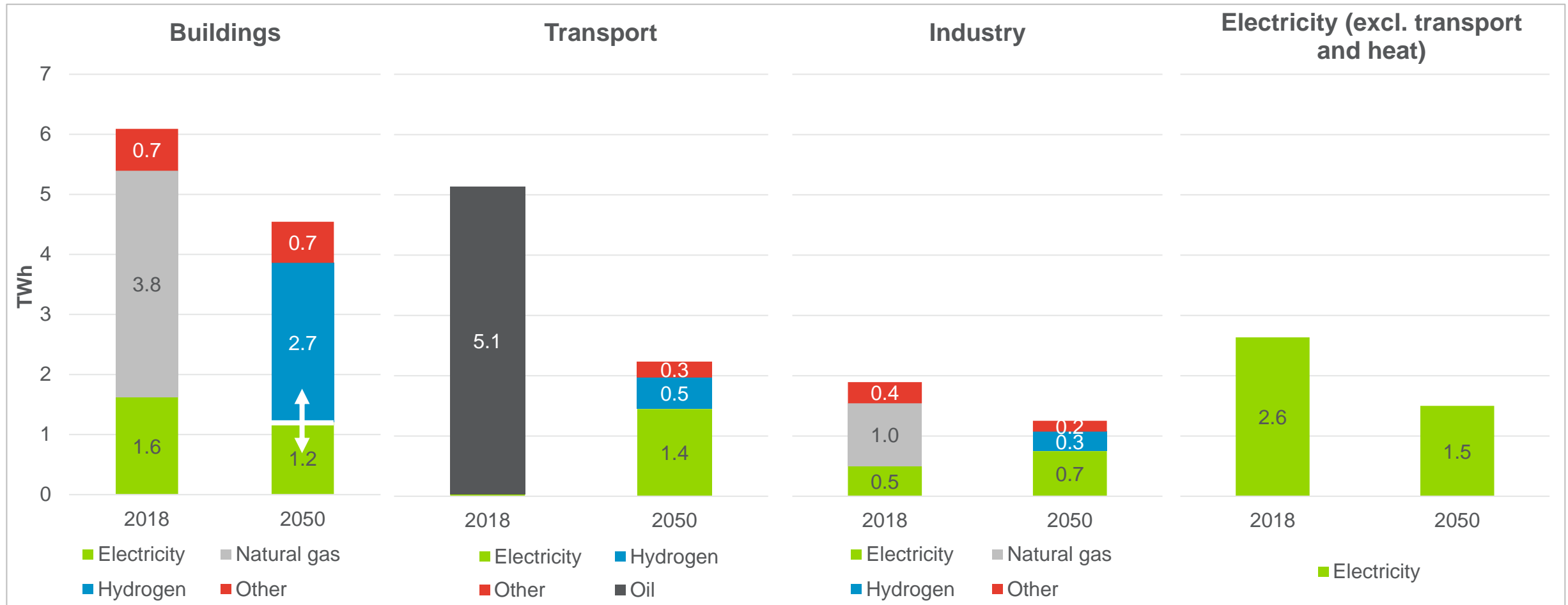
On the demand-side, the “buildings” segment will increase from 39% today to 47% of total demand in 2050, whilst the share of transport will fall from 33% currently to 23% of total demand in 2050.

The role of fossil fuels such as oil and natural gas will diminish completely as demand sectors are decarbonised. Instead, zero-carbon electricity will become key along with hydrogen which will become the dominant gas.

The lack of local blue hydrogen production capacity and the distance from other hydrogen-based industrial clusters suggests hydrogen supply to the region may materialise later than in other regions in the North of England.



Evolution of demand - overview



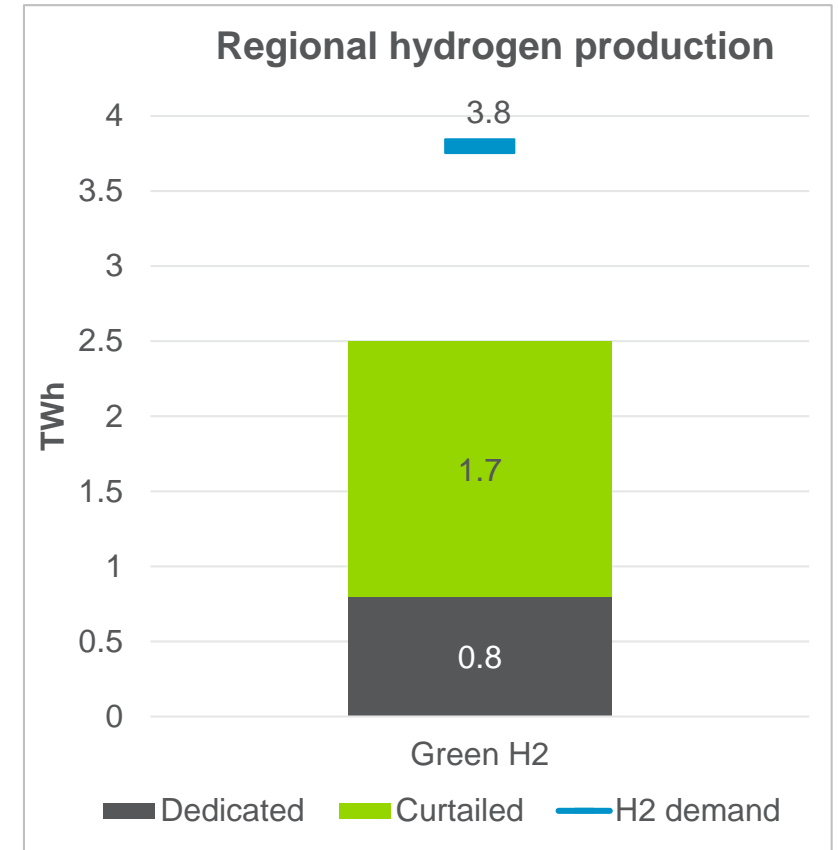
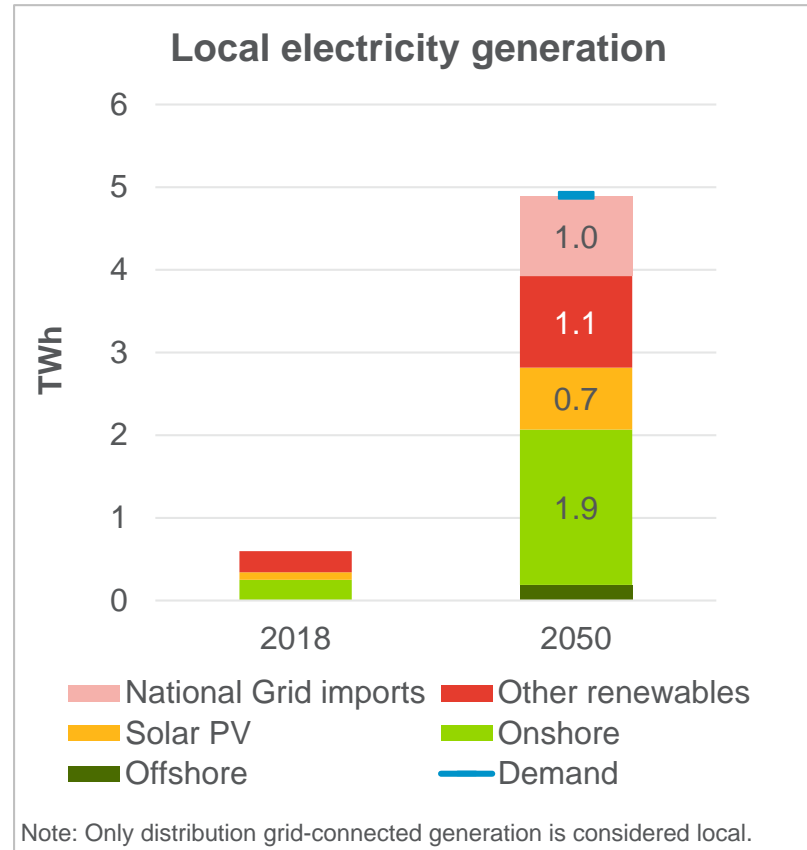
Energy supply in Cumbria



Cumbria will be able to meet 80% of electricity demand through local distribution grid-connected generation. The strong wind resources can be used to generate significant amounts of green hydrogen by 2050.

Electricity generation potential is expected to increase significantly in Cumbria. The region has abundant space to accommodate both onshore and offshore wind farms. The region is also a potential location for future nuclear new build. The existing nuclear ecosystem makes Cumbria a likely location for the UK government's planned nuclear development.

From the mid-2030s, Cumbria has the potential to produce significant quantities of green hydrogen from dedicated wind generation, curtailed electricity or, if available, nuclear power. The lack of large industrial clusters makes Cumbria an unlikely location for large-scale blue hydrogen production in the future. In the long-term, Cumbria will be part of the expected North of England Hydrogen Zone which will give the region access to various sources of low-carbon hydrogen.





Do you think it is more important to...

Keep our part of the bill as low as possible by delaying investment in the network until capacity short falls are expected (*reactive*)

or

Bring forward future investment to increase network capacity and enable faster pathways to net zero (*proactive*)

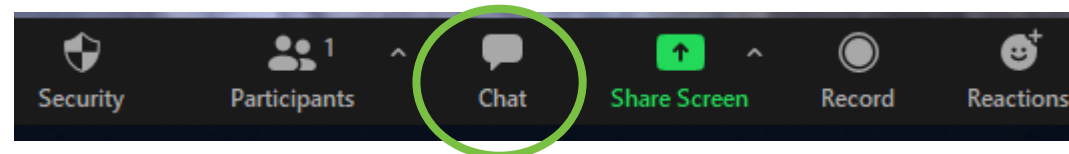
A poll will automatically appear on your screen. Please select your answer and press submit.



We think we have a key role to play in facilitating an affordable and socially inclusive low-carbon transition that brings benefits to all.
How can we most effectively do this in Cumbria?

How can we best engage customers in the transition to ensure we don't leave anyone behind?

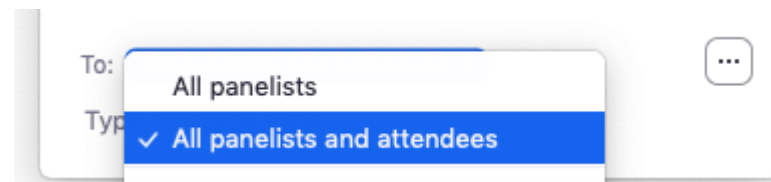
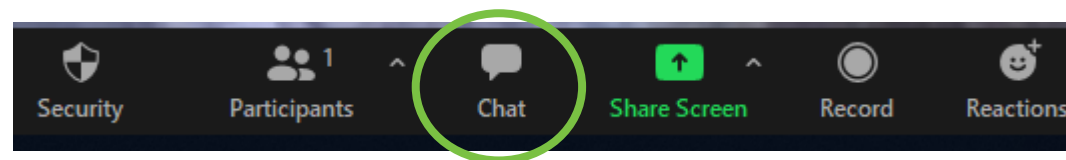
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Any questions



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Key challenges – looking to the future

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Targeting options for ED2 – balancing different priorities

In principle which TWO groups do you think are the MOST important we target network investment towards:

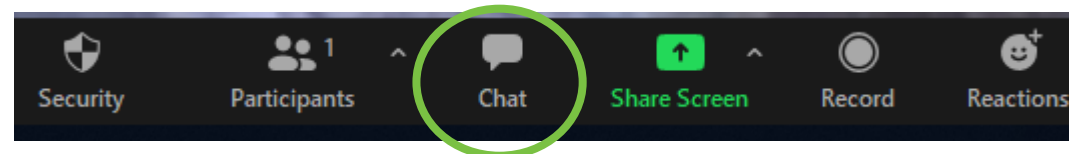
- Worst served customers
- Those in positions of vulnerability – health issues etc.
- Those in fuel poverty
- Those using low carbon technology such as electric vehicles or solar panels
- Those without access to a mains gas supply
- Those with below average reliability

A poll will automatically appear on your screen.
Please select your top two priorities and press submit



We aim to be a force for good in delivering positive impacts in the North West. What contributions could we make that would have the biggest positive impact in Cumbria?

Please type your answers in chat. You can access the chat by pressing the circled button at the bottom of your Zoom window.





Ofgem our regulator is proposing an incentive structure to reward network companies for going above baseline standards.

- Approaches to DSO
- Providing services to vulnerable customers
- Providing services to large connection customers
- Exceeding environmental action plans
- Whole system approaches
- Those with below average reliability

Are these the right areas to focus on ?

Yes

or

No

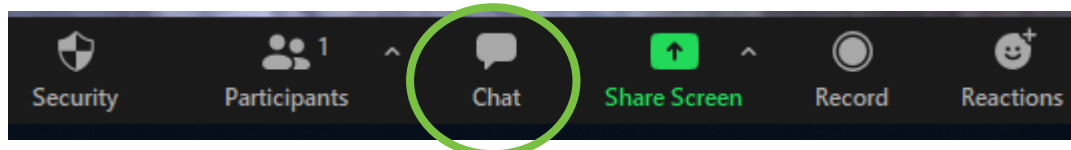
A poll will automatically appear on your screen.

Please select your answer and press submit

Please type anything you think is missing in chat.



Please add any further questions to the chat



Plugging In

Thank you for providing your feedback today. All feedback is valuable and we would welcome further input online www.pluggingin.co.uk/survey



Further questions

Thank you for attending. Please leave your feedback by clicking the link in chat.

Next steps:

Summary report will be available on our website

16 October 2020

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