

**electricity**  
**north west**

Bringing energy to your door



# Our Innovation Strategy

January 2021

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Approximately 40 minute presentation



Questions & Answers throughout



Submit written questions using the chat function



Please stay on mute during the presentation



Please note the webinar is being recorded



We will ask for feedback during the webinar



**Dan  
Randles**  
Head of  
Innovation



**Geraldine  
Paterson**  
Innovation  
Manager



**Elizabeth  
Pattison**  
Innovation  
Funding  
Manager



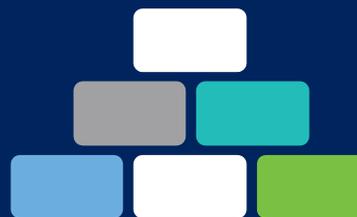
This is to introduce an update to our Innovation Strategy



Adopting best practice to consult with stakeholders



Feedback will be incorporated into the draft document



Our ED2 plan will build on this strategy



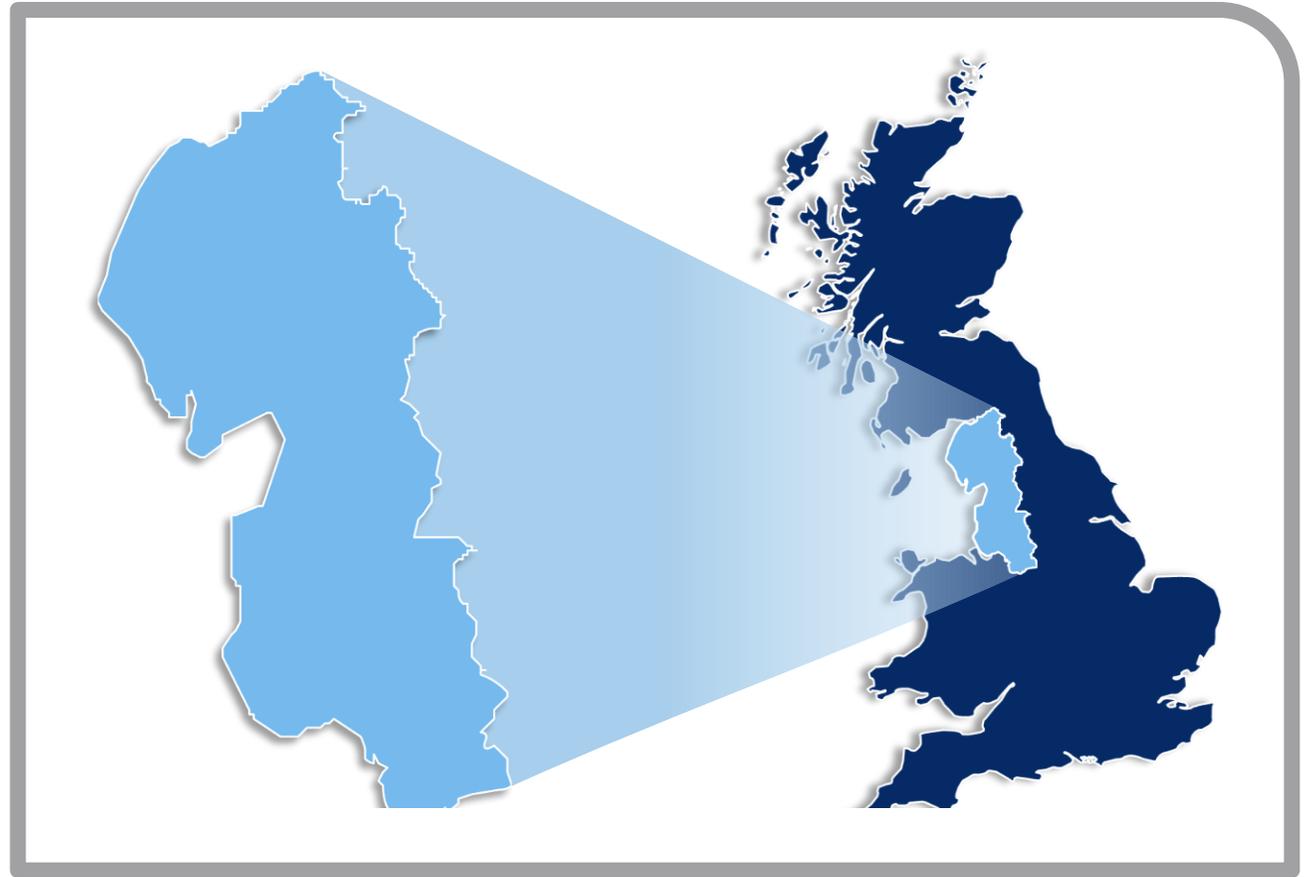
4.9 million



2.4 million



25 terawatt hours



£12 billion of network assets ● 56 000 km of network ● 19 grid supply points  
66 bulk supply substations ● 363 primary substations ● 33 000 transformers



## Funding

**£32.9m**  
total innovation  
funding

**£18m**  
funding from IRM  
awarded to  
Smart Street

**£4.5m**  
received for  
successful  
delivery  
reward

**£14.5m**  
invested in NIA  
projects

**£12.8**  
funding from  
Low Carbon  
Networks  
Fund

Awarded  
**highest**  
**% NIA**  
allowance  
for ED1



## Benefits

**£46.4m**  
benefits  
delivered to  
customers

Up to  
**£70/year**  
savings for  
customers from  
Smart Street

CLASS  
installed at  
**64%**  
of 33kV sites

**10,000**  
smart fuses  
in use across  
the UK



## Awards

**CLASS**  
European Utility  
Industry award  
for energy  
revolution

**Bidoyng**  
Queen's Award  
for Enterprise

**Smart Street**  
Utility Week's  
Network Award for  
innovation project of  
the year

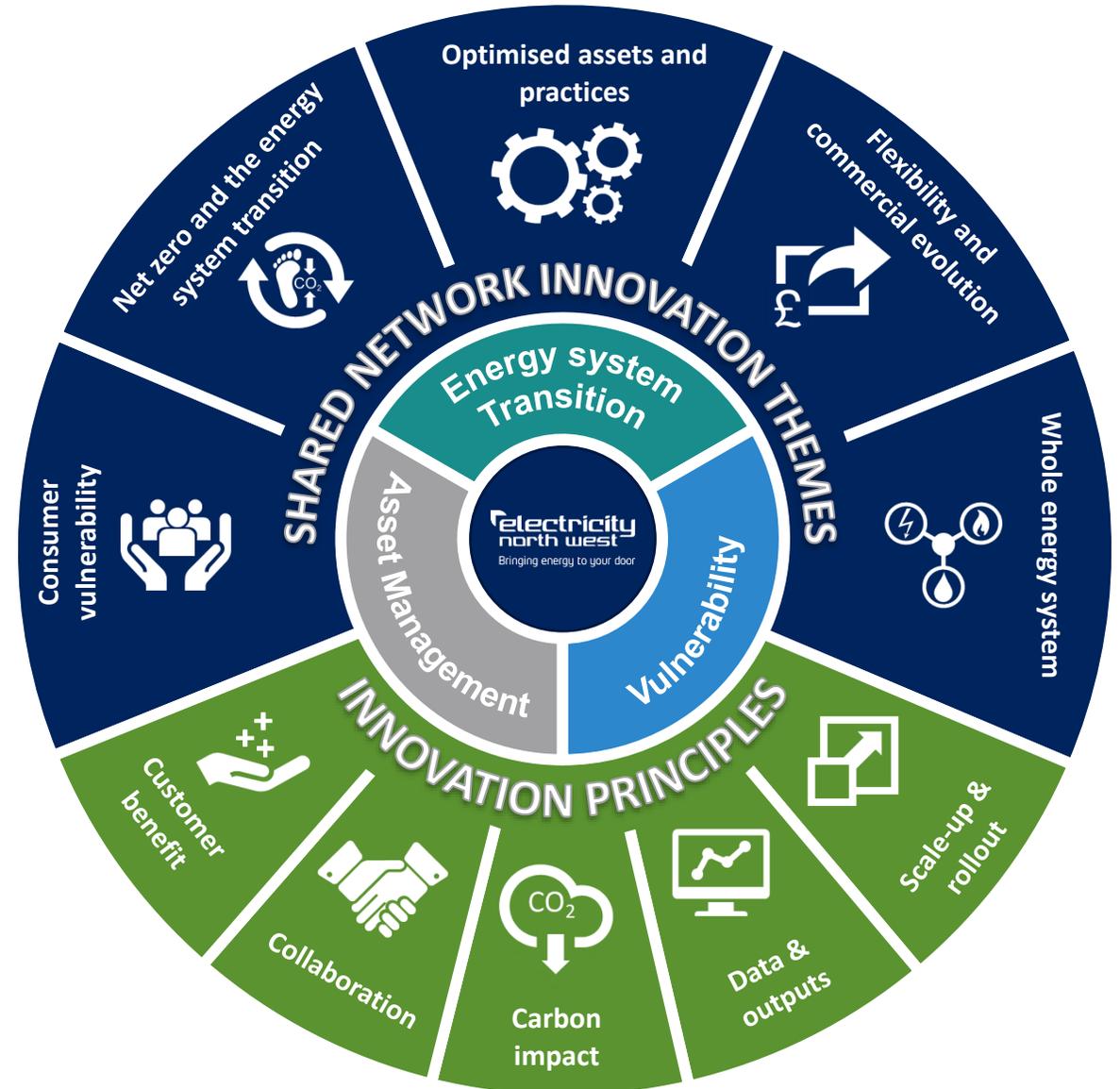
# Our strategy at a glance

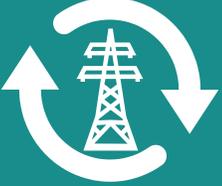


Three core challenges

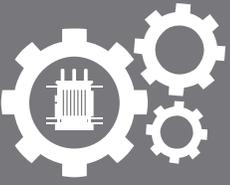
Five themes provide shared strategic direction across the industry

Five principles underpin all our projects





Energy system transition



Asset management

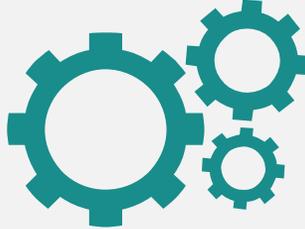
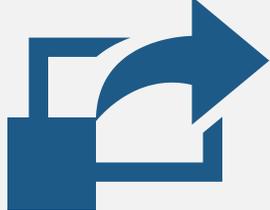
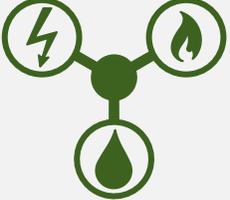


Vulnerability



# Innovation themes



Consumer vulnerability	Net zero and the energy system transition	Optimised assets and practices	Flexibility and commercial evolution	Whole energy system
				
<p><b>Aim:</b> to support the needs of consumers in vulnerable circumstances today and in the future, and ensure that everyone can experience the benefits of the energy transition and any adverse effect of change is minimised.</p>	<p><b>Aim:</b> to facilitate and accelerate the UK's transition to net zero greenhouse gas emissions before 2050.</p>	<p><b>Aim:</b> to develop and implement industry-leading techniques for optimising assets and practices for energy networks.</p>	<p><b>Aim:</b> to develop and test innovative solutions to increase the flexibility, transparency and efficiency of the energy system, enabling information to be more open and networks to be more responsive to change.</p>	<p><b>Aim:</b> to enable joined up and efficient approaches across multiple aspects of the energy system around planning, forecasting, design, construction, operation, maintenance and data</p>

“ Are there any other themes we should consider? ”



Q1 – Rank our themes in order from most to least important to you



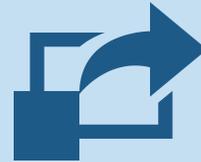
1. Consumer vulnerability



2. Net zero and the energy system transition



3. Optimised assets and practices



4. Flexibility and commercial evolution



5. Whole energy system

Q2 – Are there any themes missing from our strategy?

# Our innovation principles

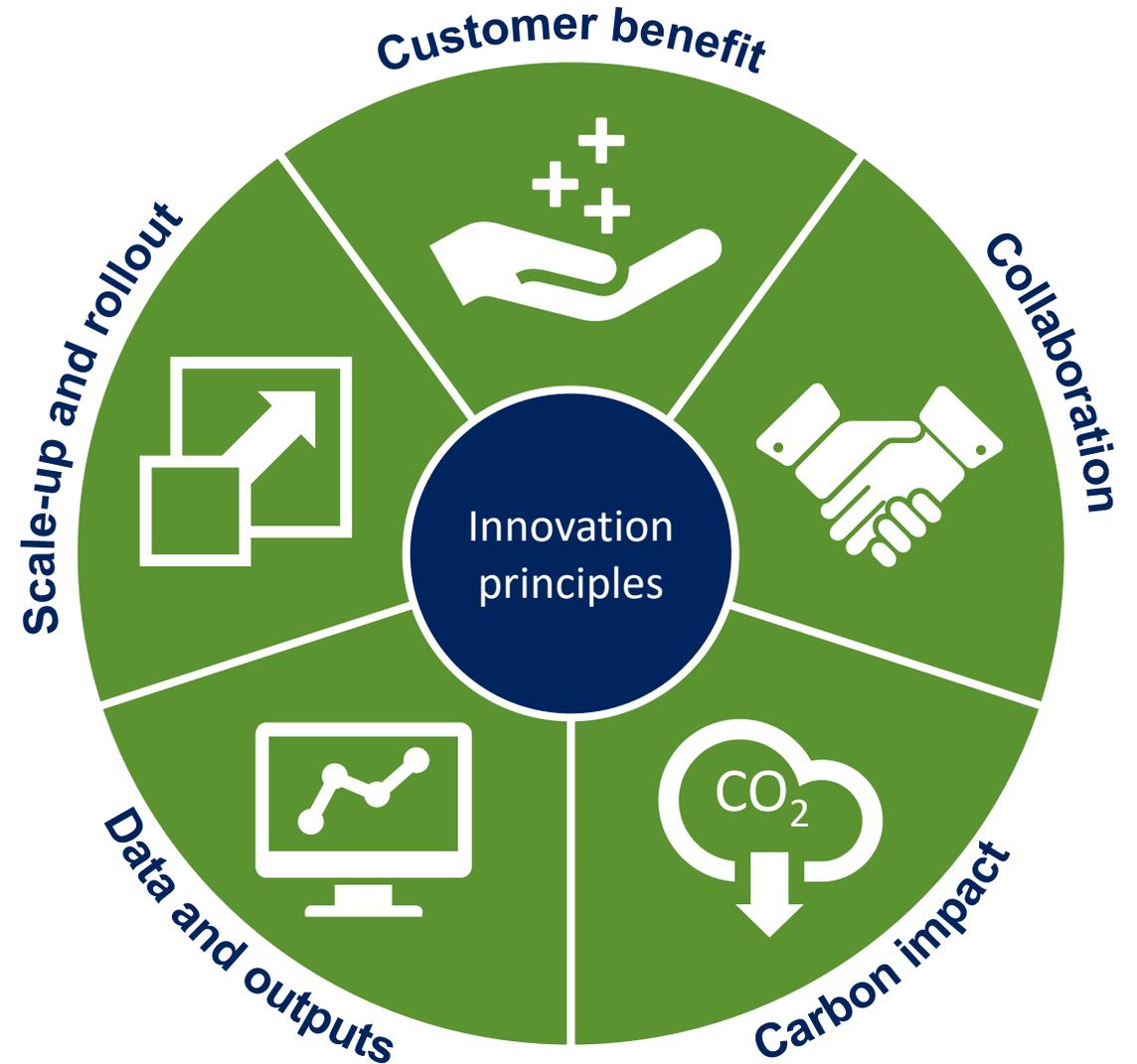


Underpin all of our innovation projects

Influence our decision-making

Guide our innovation choices

Ensures alignment with stakeholder needs





Ideas come from a variety of sources

Value for customers must be clear

Must link to at least one of our themes





**Embedded innovation**  
proven innovation which  
is considered the default  
solution to a problem



**Business as usual  
innovation**  
short-term, lower risk  
innovation funded by  
our base revenue  
allowance



**Ofgem-funded innovation**  
innovation funded by our  
customers under a  
mechanism agreed by  
Ofgem, which  
demonstrates long-term  
value for customers with a  
focus on energy system  
transition and customer  
vulnerability



## Email



If you have an idea for an innovation project, please email us at [innovation@enwl.co.uk](mailto:innovation@enwl.co.uk)

## Call for innovation



If you have an idea watch out for our Call for Innovation

## ENA call for innovation



You can also respond to the Energy Network Association's Call for Innovation



## In ED1 NIA based on % of base revenue

DNO	NIA Request (% of base revenue)	NIA amount (% of base revenue)	NIA Amount (approx. £m per annum)
ENWL	0.8	0.7	£2.79
NPG	0.6	0.6	£3.84
WPD	0.5	0.5	£7.53
UKPN	0.5	0.5	£6.63
SPEN	1.0	0.5	£3.66
SSEPD	1.0	0.5	£4.08

We were awarded largest % but received least £ due to being a single DNO



In ED2 we have the opportunity to set out our innovation plan and we intend to be much more ambitious with our funding request.

Given this we would like to use this opportunity to gauge stakeholder opinion on the level of our ambition for ED2

Q3 – Do you think Electricity North West should be considering:

i. A more ambitious plan than ED1

ii. A plan similar in size to ED1

iii. A less ambitious plan than ED1



## Consumer vulnerability



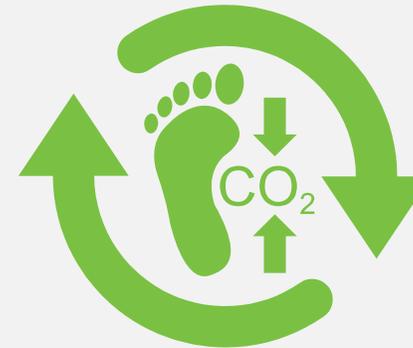
**Aim:** to support the needs of consumers in vulnerable circumstances today and in the future, and ensure that everyone can experience the benefits of the energy transition and any adverse effect of change is minimised.

Further explore our role in addressing fuel poverty and how technology could provide savings to vulnerable customers

Explore how technology and innovation can mitigate the environmental and societal impact of our operations

Assist with community and local energy schemes

## Net zero and the energy system transition



**Aim:** to facilitate and accelerate the UK's transition to net zero greenhouse gas emissions before 2050.

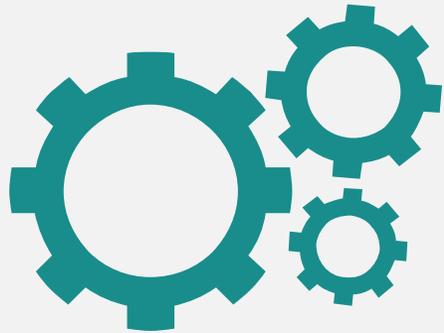
Offset the carbon impact of our network

Increase energy efficiency and maximise capacity through use of voltage optimisation

Facilitate the use of low carbon technologies



## Optimised assets and practices



**Aim:** to develop and implement industry-leading techniques for optimising assets and practices for energy networks.

Investigate alternatives to and reduce our use of sulphur hexafluoride (SF<sub>6</sub>) in electrical switchgear

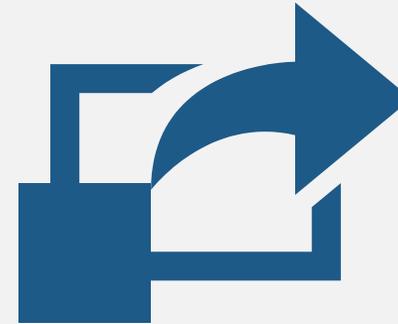
Explore improvements to safety measures for our operators and the general public

Enhance automation across our operations and make use of new technologies to improve network resilience

Improve network reliability

Increase lifespan and improve health of existing assets

## Flexibility and commercial evolution



**Aim:** to develop and test innovative solutions to increase the flexibility, transparency and efficiency of the energy system, enabling information to be more open and networks to be more responsive to change.

Facilitate bringing domestic flexibility into the market

Improve demand and generation forecasting

Guarantee access to our data

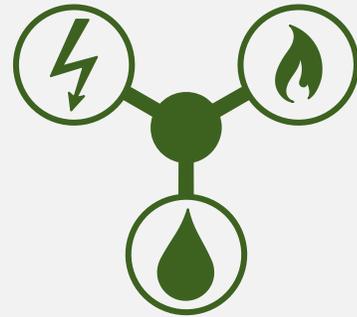
Improve our connections processes

Improve Electricity System ESO interface arrangement

Improve interface arrangements with other DNOs



## Whole energy system



**Aim:** to enable joined up and efficient approaches across multiple aspects of the energy system around planning, forecasting, design, construction, operation, maintenance and data

Investigate joint use of assets

Promote whole system planning and decision-making

# Our commitments



We will keep our strategy **under regular review**, ensuring that it reflects our priorities and those of our stakeholders



We will ensure that we deliver projects that **tackle the challenges** of energy system transition and vulnerability



We will routinely hold a **'call for innovation'** and encourage innovators to submit their ideas for consideration



We will ensure **collaboration** is at the forefront of all innovation, keeping stakeholders up-to-date and sharing all learning



We will establish an **Innovation Oversight Panel** to routinely review and challenge our innovation programme



We will publish an **annual Innovation Update** report to provide visibility of how we are meeting our commitments

# QUESTIONS & ANSWERS



[innovation@enwl.co.uk](mailto:innovation@enwl.co.uk)



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



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Please contact us if you have any questions or would like to arrange a one-to-one briefing about our innovation projects



Q4 - In your view, how best can we engage individuals to ensure we obtain the most beneficial response to develop our strategy?

*Please submit your answer in the Zoom chat before you leave.*