



electricity
north west

Bringing energy to your door



Community Energy Strategy and the Power Saver Plus Project

Community Energy in Levenshulme

Tom Law,

28 September 2017

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www.enwl.co.uk

Introducing Electricity North West



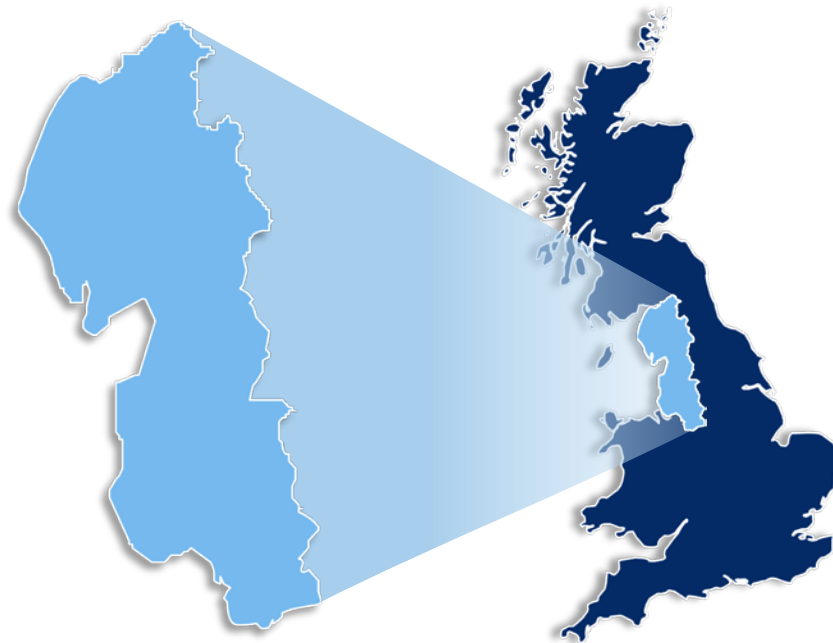
4.9 million



2.4 million



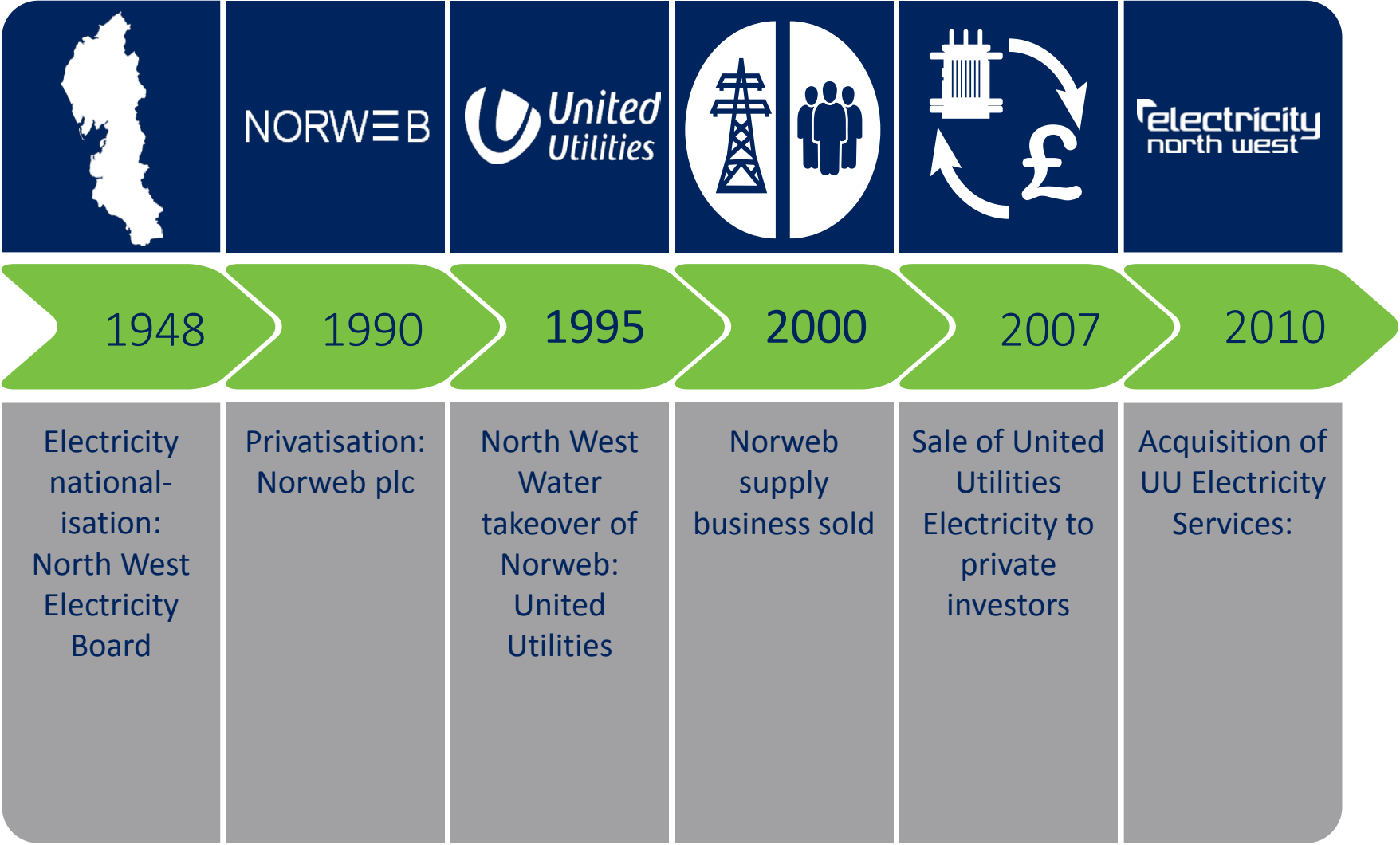
25 TWh



56 000 km of network ● £12.3 billion assets

19 grid supply points ● 66 bulk supply substations
363 primary substations ● 33 000 transformers

Our Heritage



UK energy challenges



2013

1/3 gas
1/3 electricity
1/3 oil



2020

35% reduction in CO₂
15% of energy from
renewables
Generation mix is radically
overhauled



2030

60% reduction in CO₂
Electricity demand
increases, driven by low
carbon technologies



2050

80% CO₂ reduction
Significant increase in
electricity demand

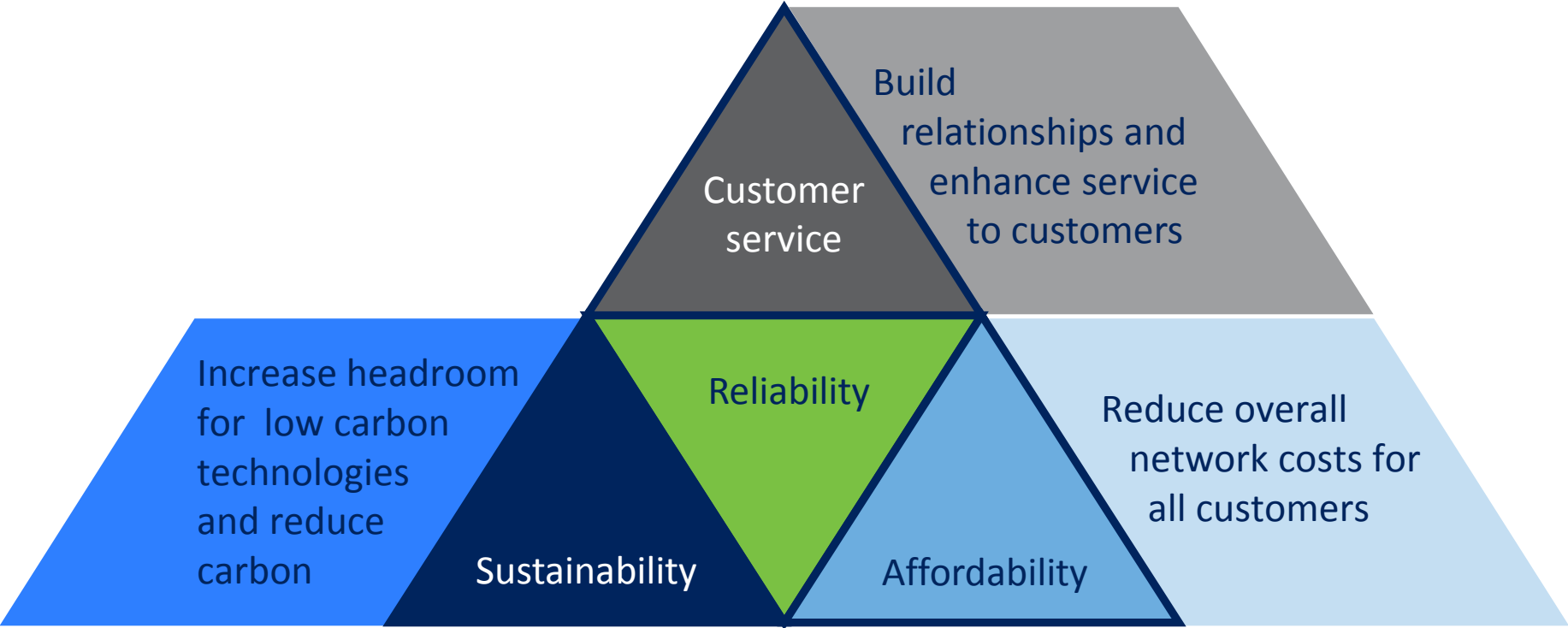
Uncertainty in future demand and generation ● Difficult to predict demand
● More pressure to meet customers' needs at minimum cost



National Air Quality Plan (2017)

“all new sales of conventional petrol and diesel cars and vans to end by 2040.”

Our business commitments



Innovation projects to support these aims



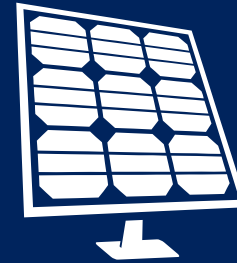
“Build relationships and enhance service to customers”



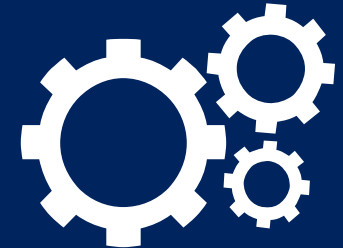
Recruited a community energy manager – starting October 2017



Electricity North West Community Energy Strategy

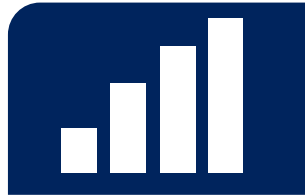


Support the development of new innovation projects in our region



Provide technical expertise to the delivery of community led low carbon projects

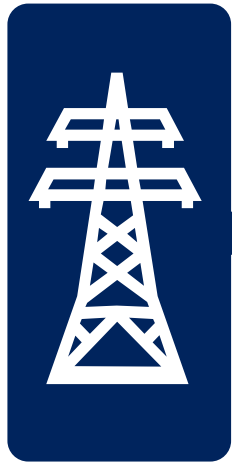
Our smart network strategy



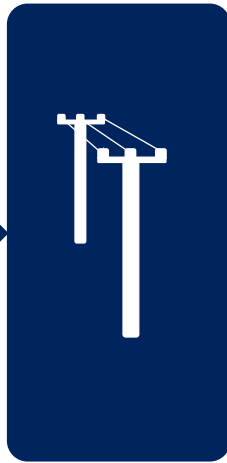
Deliver value from existing assets



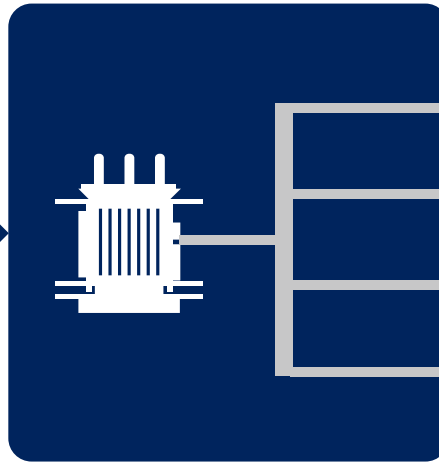
Customer choice



Extra high voltage network



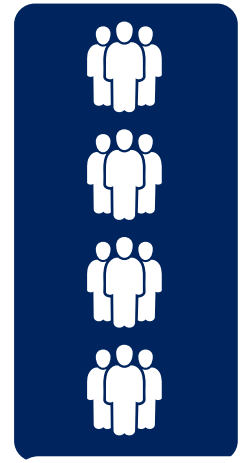
High voltage network



Distribution substation



Customers' LCTs



Customer behaviour

Respond
EHV and HV
fault level

C₂C
HV network
meshing

CLASS
Voltage at
HV
substations

Celsius
Cooling at
distribution
substations

Smart Street
CVR
LV network
meshing

Opportunity for
significant
savings 'beyond
the meter'

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QUESTIONS & ANSWERS

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Appliances

High efficiency 'white goods' such as fridge freezers, washing machines, tumble driers and dishwashers will be deployed on a 'scrappage scheme' basis



Heating

Traditional electric storage heaters in domestic buildings will be replaced with high efficiency heaters



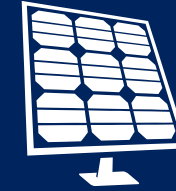
Lighting

1. Deployment of LED lighting in customers' premises
2. Deployment of LED street lighting in selected areas



Behaviour

A behavioural change programme through multiple channels of engagement, on an individual basis and by customer group



PV

1. Free or subsidised PV installations on municipal buildings
2. Deploy small scale PV installations at secondary substations



Combined measures

Multiple measures deployed with a trial group: a combination of lighting, an appliance and behavioural intervention



Power Saver Plus unlocks huge potential of energy efficiency



Builds on previous project which proves that engaging with customers can influence them to change their behaviour

Variety of low cost, low intrusive energy efficiency measures trialled with broad range of customers

Power Saver Tool provides whole system view and allows targeted approach to energy efficiency

Enhanced CBA model will establish costs and benefits of 'Targeted' energy efficiency vs smart network solutions and quantifies wider societal benefits

Benefits:
Deferred reinforcement
Reduced carbon
Reduced network and energy costs for customers



Electricity North West has a proven track record of successful customer engagement

We are drawing upon learning from previous projects eg Power Saver Challenge which demonstrated that engagement can successfully change customer behaviour



Multiple and varied channels of engagement to reach maximum number of participants



Established strict approach to data and ethics



Work with industry experts to ensure most effective approach to stakeholder engagement



Partnerships with community to aid trust and maximise engagement opportunities



Continued engagement throughout and beyond project to maximise participant retention