



Nottingham
City Council

Energy
Services



A leadership role for the Council

Elin Hultgren
Senior Energy Projects Officer
Nottingham City Council

Energy Services



Energy Services supports organisations to switch to renewable and low carbon energy solutions

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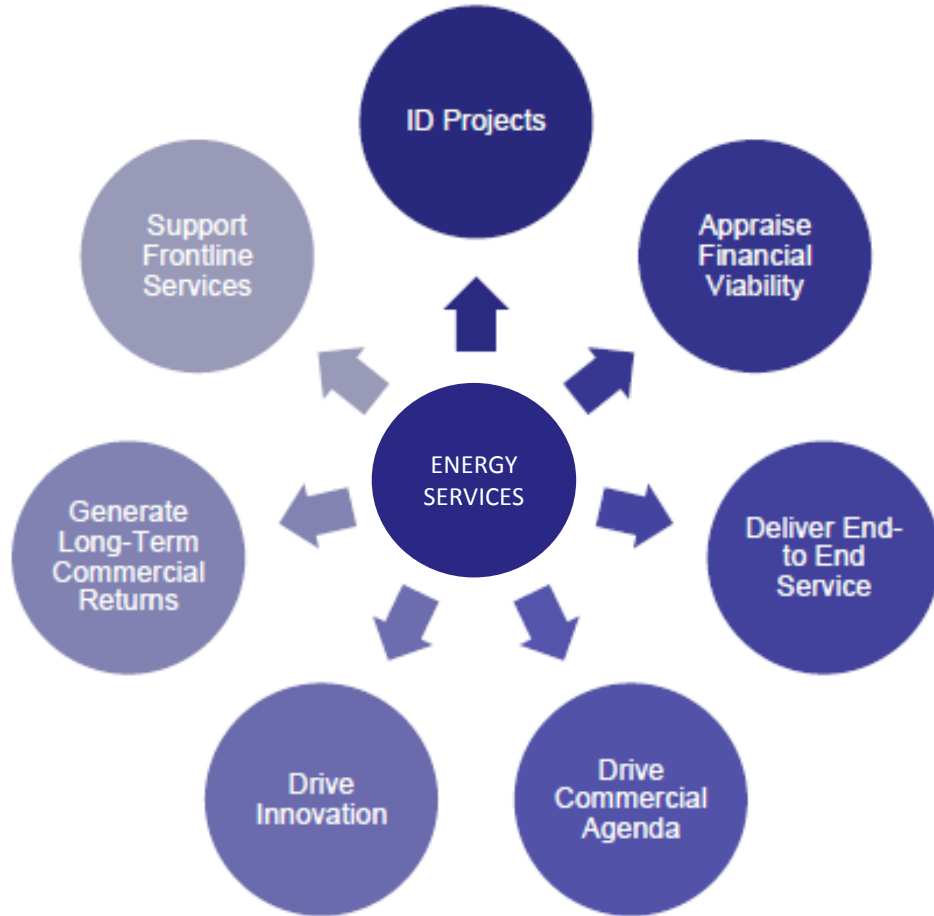
About Us

We are managing the delivery of energy projects, programmes and services across the UK.

- Energy and Climate Change Policy
- Renewable Energy
- Smart Technology – EEMonitor Prepayment
- Energy Efficiency
- Energy Compliance
- Energy Management
- Customer Services – Metering and Billing
- District Heating



Aims and Objectives



Leading the way to a sustainable, low carbon future through support, collaboration and project delivery

The NCC Bridge

Public



Private



Grants

Matched Funds

Pioneer

Incubator

Test Facilities

ROI

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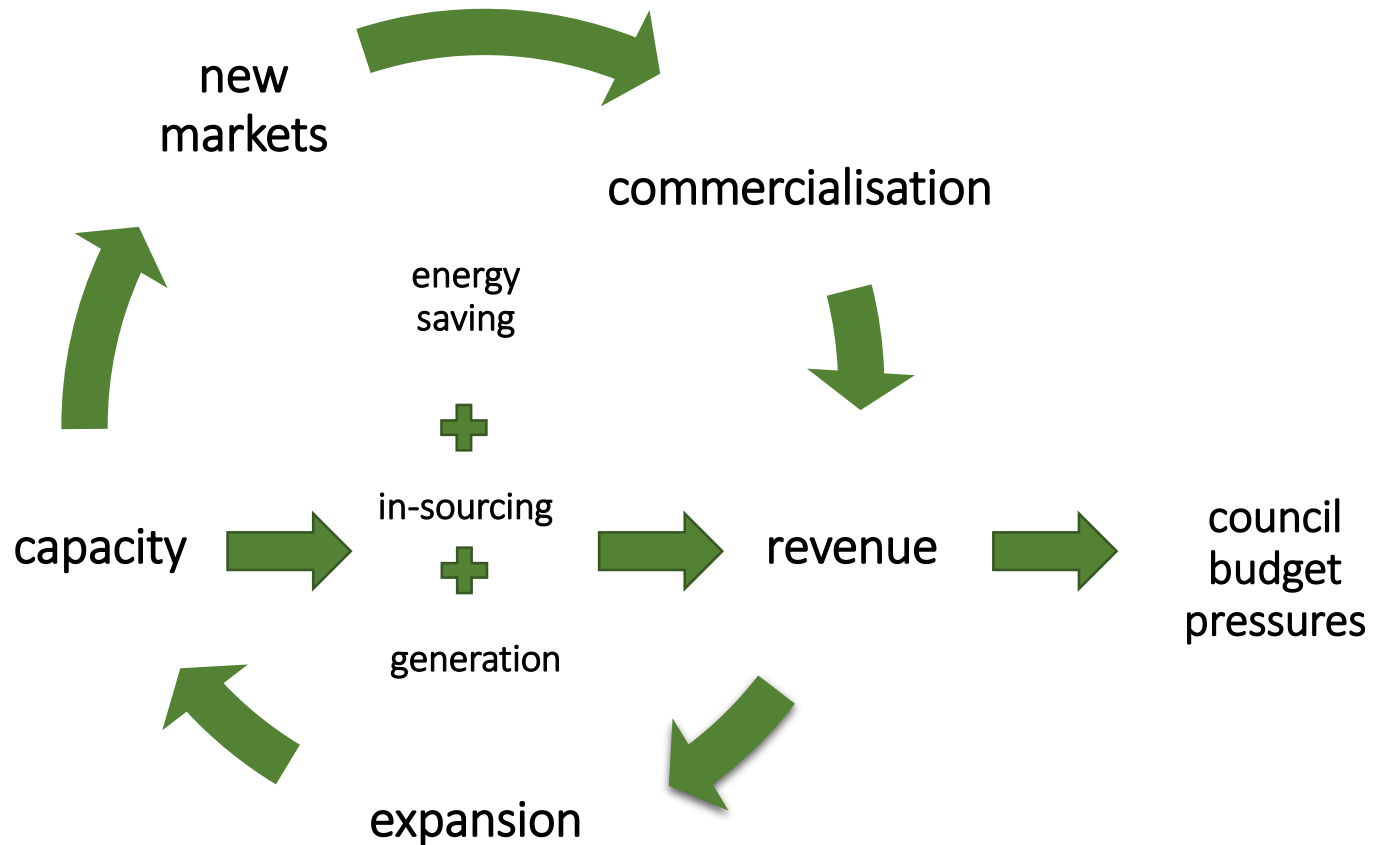
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The NCC Bridge – Delivery model



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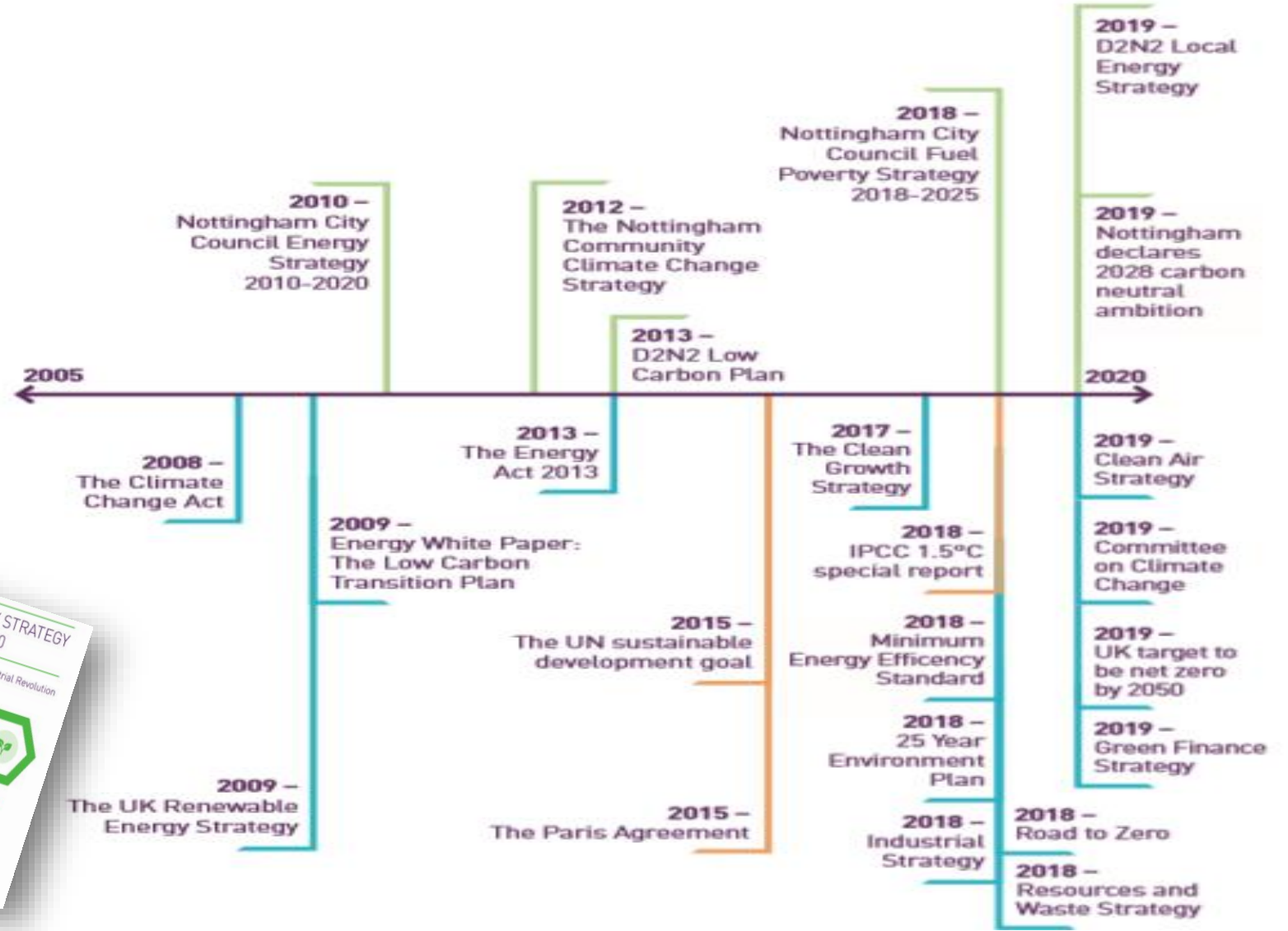
The NCC Bridge – Delivery Model

- ✓ Strategy & Policy clearly defined with ongoing in house development.
- ✓ Commercial Delivery – 80%/20% balance, eg:
 - Fuel Cells
 - Solar PV
 - Battery Storage
- ✓ Midlands Energy Hub Status (Local Capacity Support).
- ✓ European Projects/Programmes –
 - V2G
 - Energiesprong
- ✓ Utilities Management
 - Water Self Supply
 - Innovation Gateway
 - EEMonitor



Policy and Strategy

- KEY**
- Regional and local policies
 - National policies
 - International policies



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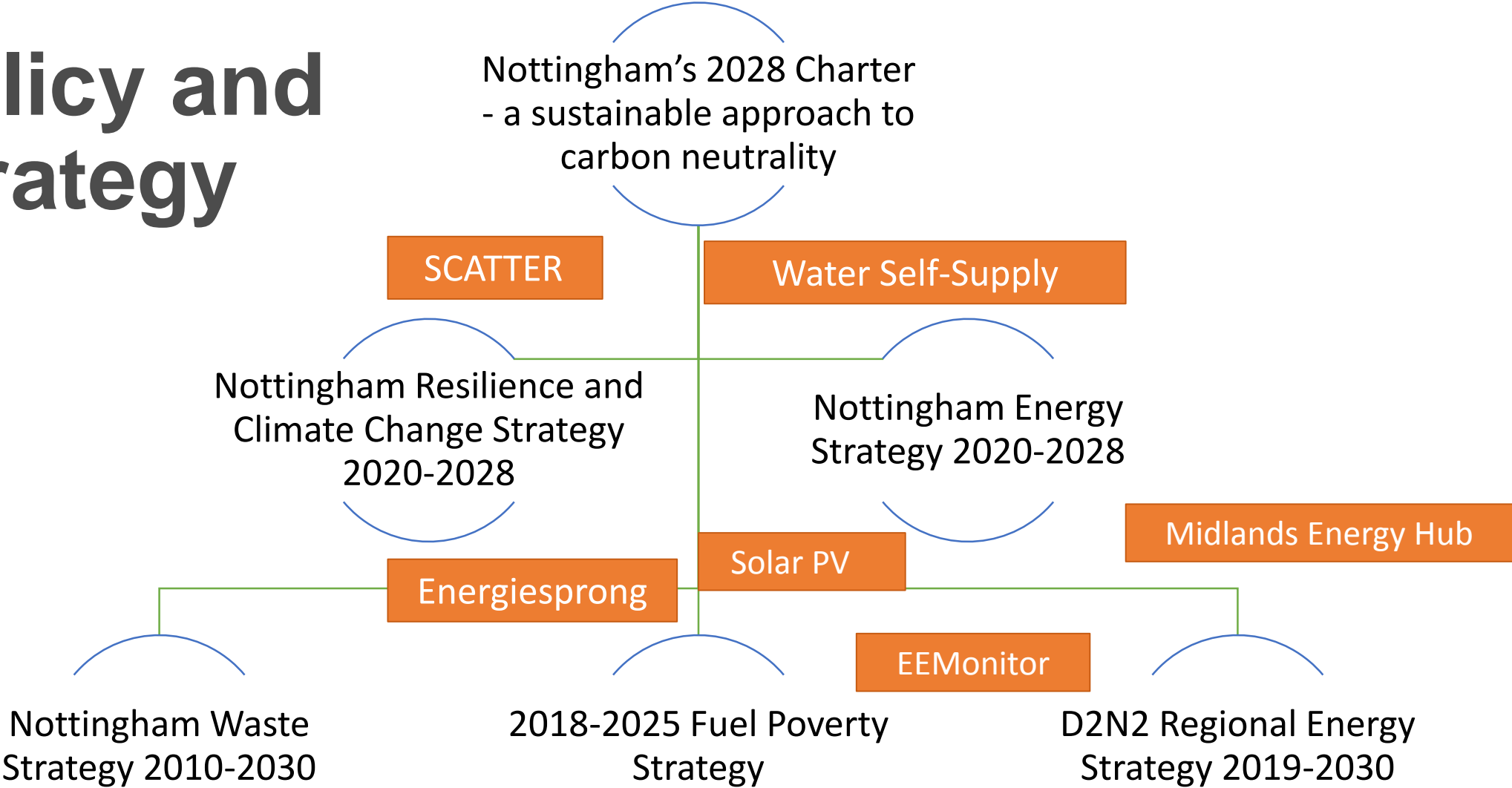
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Policy and Strategy



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Current Progress – Fuel Poverty



Fuel Poverty Reduction

Reduction in fuel poverty from 18.4% in 2012 to 12.6% in 2017

Carbon Reduction

Nottingham surpassed its emission reduction targets by 2020

2017: 41% CO₂ emission reduction (49% per capita)
(Compared to 2005 levels)

Success due to numerous actions including carrying out over 40,000 energy efficiency improvements to local homes

English Core City	2012	2013	2014	2015	2016	2017
Sheffield	2	1	2	1	2	1
Leeds	3	2	1	3	3	2
Bristol	1	4	5	2	1	3
Nottingham	7th	5th	3th	8th	5th	4th

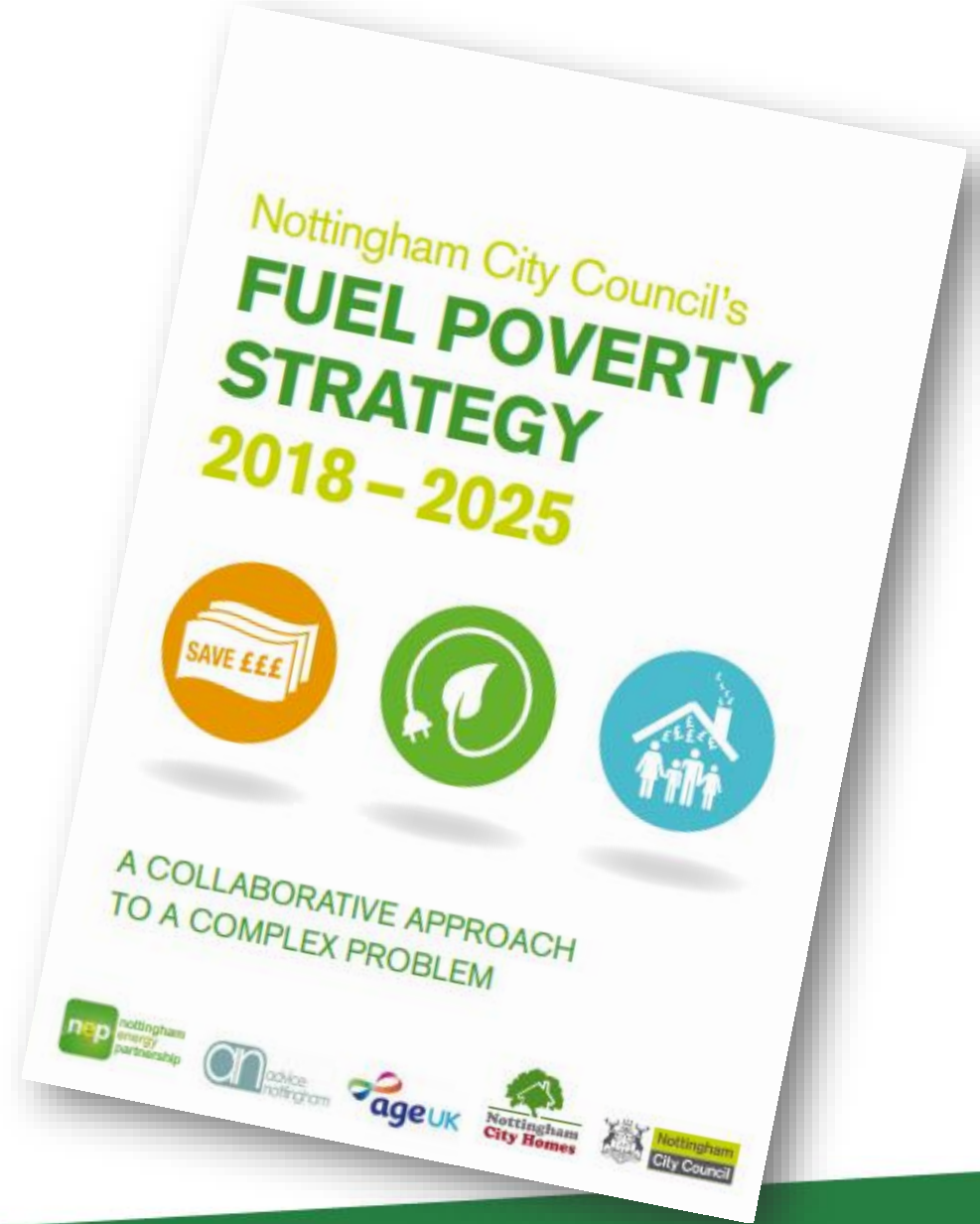
Fuel Poverty Strategy

Targets:

- Eliminate E, F & G EPC rated homes by 2025
- Demonstrate energy efficiency benefits to society, economy and environment
- Education & behavioural change of citizens

Objectives:

- Empower citizens to be more energy efficient
- Secure funding for pilot schemes
E.g. Horizon 2020 10 pilot full house retrofits



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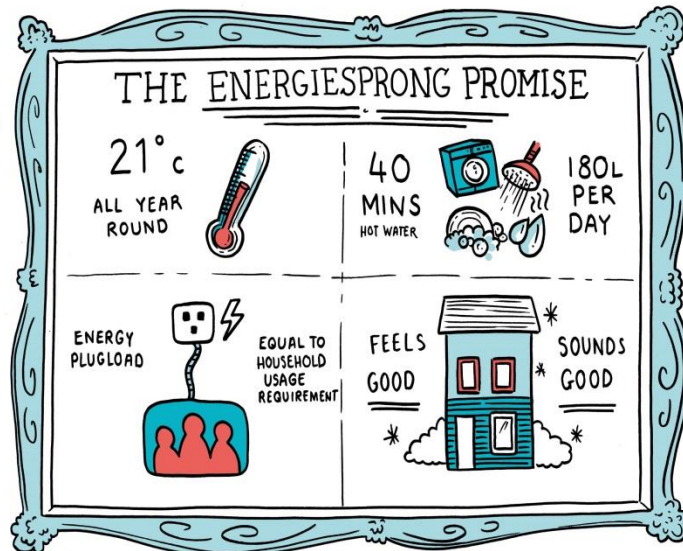
Energiesprong

Desirable, warm, affordable homes for life.

Working in partnership



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 646511



Net Zero Energy – Homes fit for 2050 carbon standards.

- 4,200 Domestic Installations – Total of 12MWp



Nottingham is responding to the climate emergency



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Carbon Neutrality

Nottingham is aiming to become a carbon neutral city by 2028, meeting this target by reducing all carbon dioxide emissions from direct and indirect energy use to net-zero.



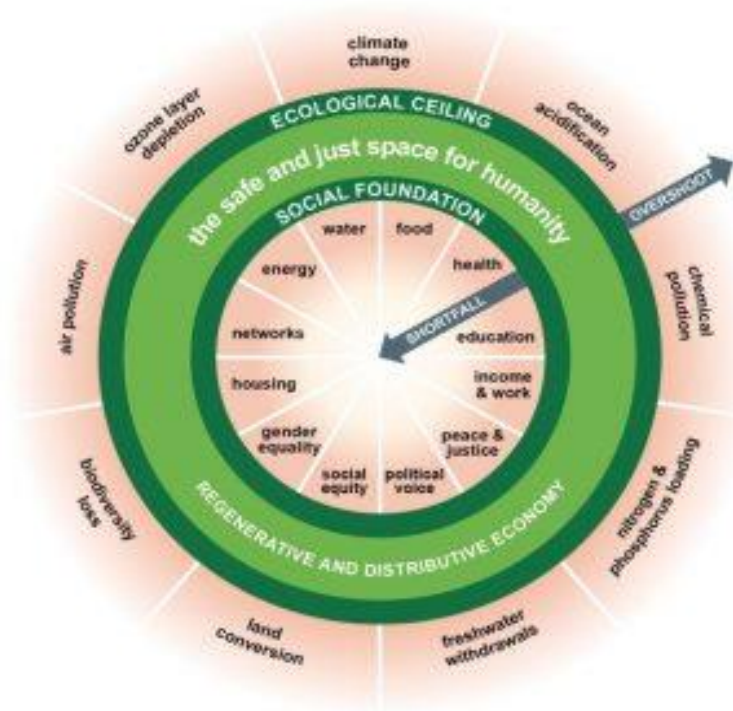
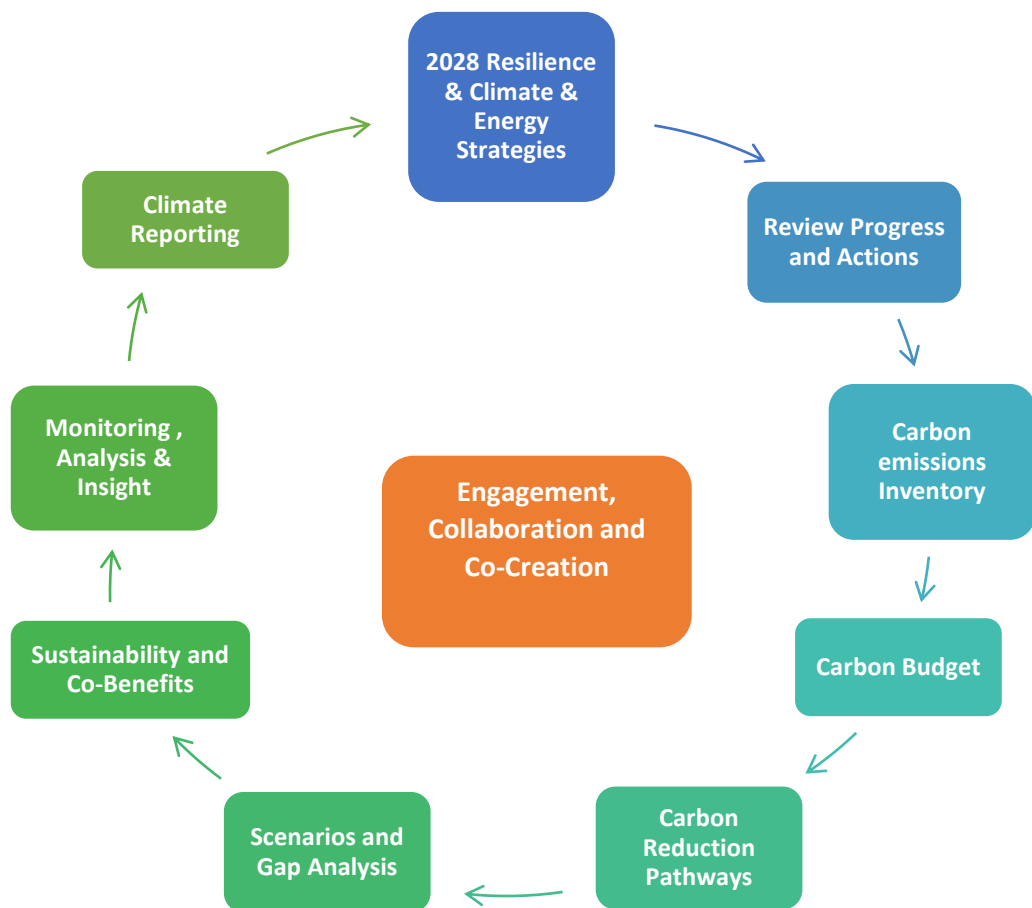
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Sustainable Carbon Neutrality



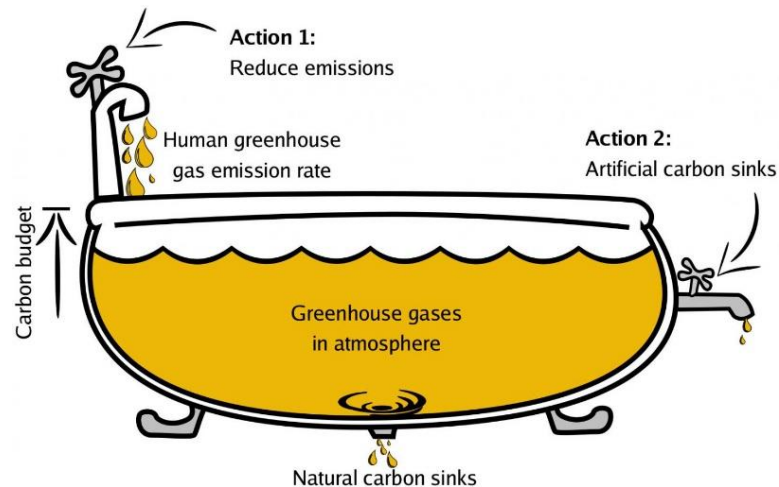
Doughnut economics model <https://www.kateraworth.com/doughnut/>

Check Your Carbon Budget:

<https://carbonbudget.manchester.ac.uk/reports/>

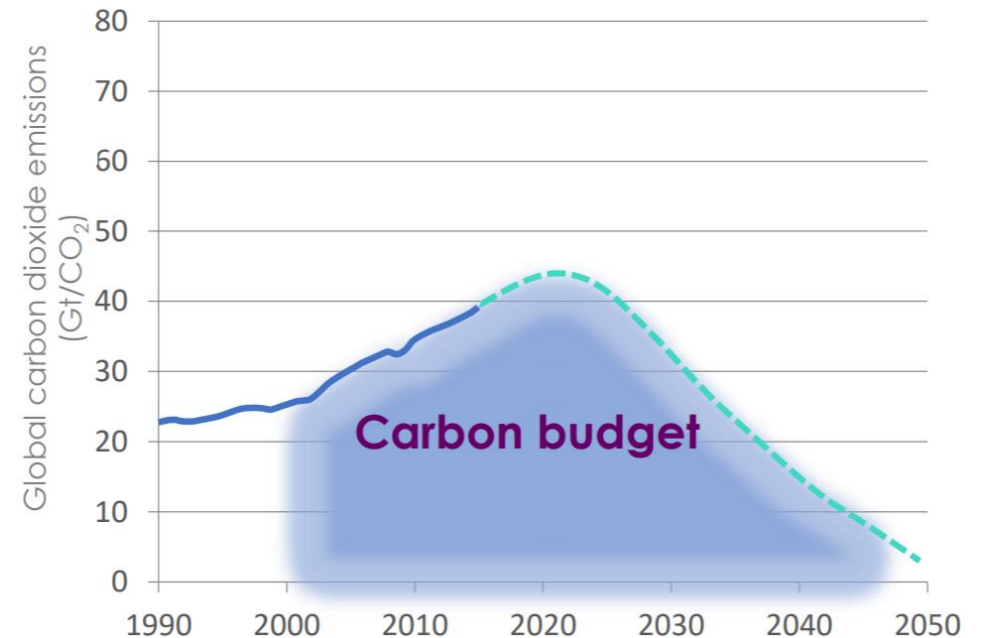
Carbon budgets inform policy by:

- Giving an idea of the scale of action required
- Setting a limit to the total cumulative CO₂ emissions to be in line with international goals/targets



Credit: M. May/HZB <https://www.eurekalert.org/multimedia/pub/190395.php>

Tyndall^oCentre
for Climate Change Research



Source: Tyndall Centre carbon budget workshop presentation (20th June)

Priorities

- Clean renewable electricity
- Decarbonising heating and cooling
- Improving the energy efficiency of buildings
- Decarbonising transport
- Reducing demand for energy
- Reducing consumption and waste
- Increasing carbon sinks and capture



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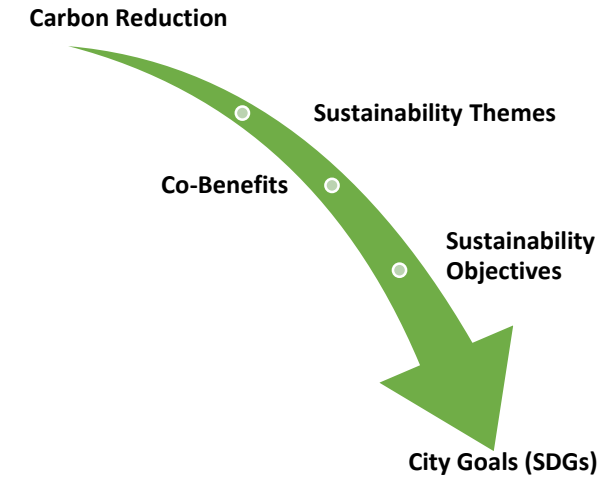


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Co-benefits agenda

- Cost Benefits Analysis
- Sustainable approach
- Delivering against key council outcomes
- Quality of life
- New business models



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Helping Councils Respond to the Climate Emergency



Supporting local authorities to measure greenhouse gas emissions and build carbon reduction plans.

A collaboration between Anthesis Group, Nottingham City Council, BEIS, Greater Manchester Combined Authority and the Tyndall Centre for Climate Research at the University of Manchester.



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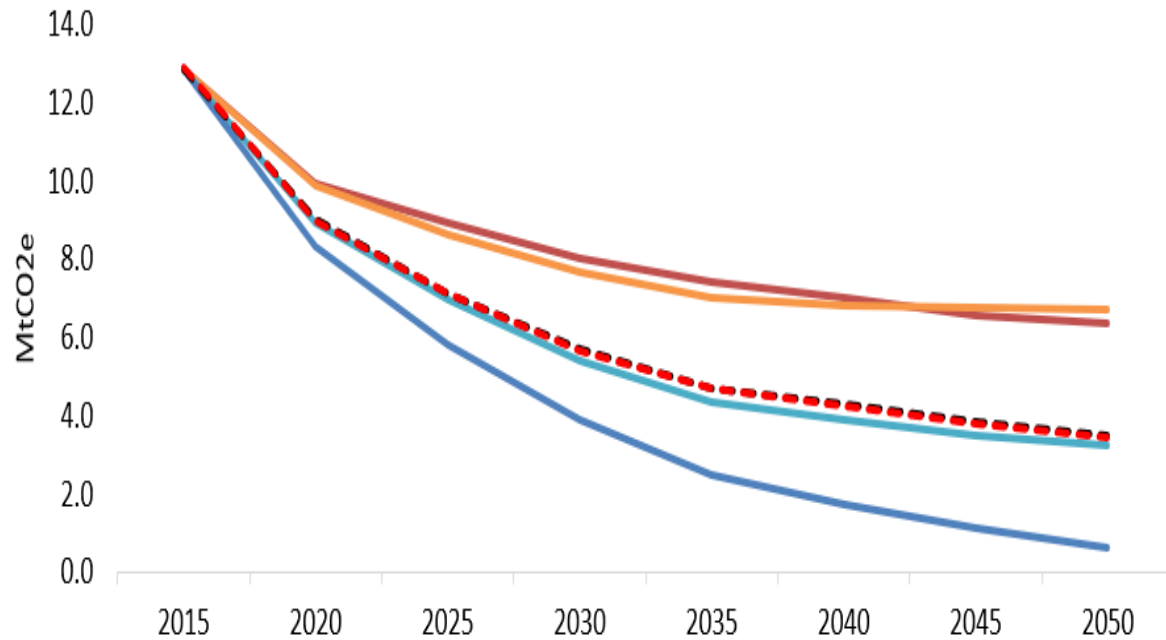
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SCATTER - Setting City Area Targets and Trajectories for Emissions Reduction

- BEIS funded
- Build on initial Excel tool from GMCA and Core Cities usage
- Implement evaluation recommendations
- Made into web-service
- Separate the key functions, inventory/reporting & pathways
- Make accessible, user-friendly, easily updateable and more tailored



SCATTER – Pathways



What will Pathways do?

- Show possible trajectories based on measures and ambition
- Allow input of your own carbon budget
- Understand how far and fast LA area's ambition will take it
- Engage with decision makers and citizens on the scale of the challenge

What will Pathways not do?

- Provide differing target dates
- Show how to get to your area to zero carbon
- Give the specific interventions needed or which should be put in place

SCATTER – Access

- Free of Charge for all local authorities
- Pathway tool launching in October 19
- Webinars available for the launch – please visit the website for more information: <https://scattercities.com>

<https://www.youtube.com/watch?v=cGqpzjlf1U>

- For further information please contact Jonathan Ward, Principal Energy Policy Officer, Nottingham City Council:
jonathan.ward@nottinghamcity.gov.uk



Stoke-on-Trent & Staffordshire
Enterprise Partnership

Greater Lincolnshire
Local Enterprise Partnership

Worcestershire
Local Enterprise Partnership

D2N2
Derby
Derbyshire
Nottingham
Nottinghamshire

The Marches
Local Enterprise Partnership
Herefordshire - Shropshire - Leicestershire & Warwickshire

llep
Leicester & Leicestershire
Enterprise Partnership



CWLEP Coventry & Warwickshire
Local Enterprise Partnership

Black Country LEP

Greater Birmingham & Solihull
Local Enterprise Partnership

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Water self-supply



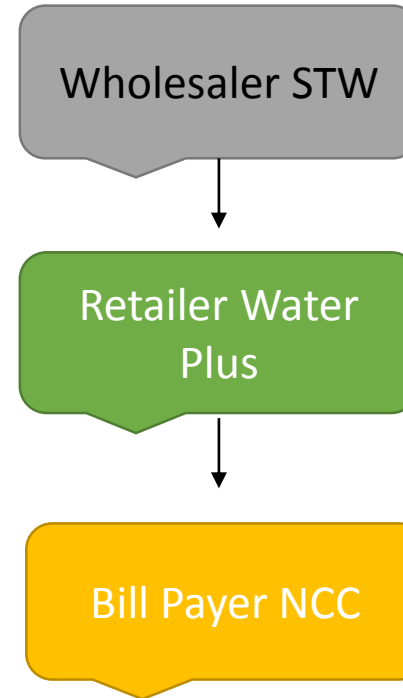
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Water Self Supply

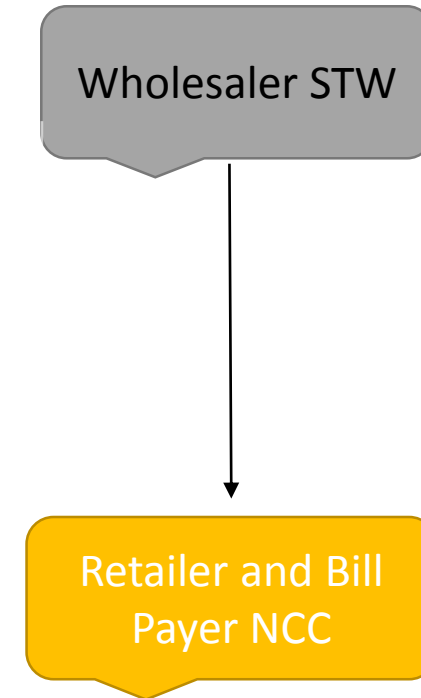
What's the opportunity?

- De-regulation of commercial water market
- Becoming self-supply licensee
- Billing our own sites
- Financial saving
- No change to domestic properties

Previous Process



New Process



The benefits

- Greater control of water utilities
- Removal of third party interference and costs – reduced operational costs
- Better customer service
- Greater knowledge of portfolio of meters
- Ability to claim back over spend from previous retailer
- Share best practise knowledge with local authority counterparts to help them on their self-supply journey





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District Heating



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Nottingham District Heating

- Operational since 1972
- Operated by Enviroenergy since 1998 – a wholly-owned trading arm (ESCo) of Nottingham City Council
- 68km of pipework insulated pipework – more than any other scheme in the country
- 5,000 domestic dwellings (3,000 social housing tenants) connected for the provision of space heating and hot water
- 115 commercial customers
- Scheme offsets 27,000 tonnes of fossil fuel CO₂ annually
- Scheme diverts 165,000 tonnes waste from landfill annually



The eemonitor



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The eemonitor

- Offer complete package: hardware supply, installation, commissioning, billing service provision
- Serving a growing national customer base
- Experienced workforce
- Established Nottingham based call centre
- Flexible solution designed to meet the client's needs



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For further information please visit our website:

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