

Climate Strategy and Green Skills

- GWP meeting, 5 February 2021
- Ariane Crampton

National context

- Government is seizing the opportunities of a green economic recovery and has pledged:
 - to reduce national emissions by 68% by 2030
 - for the UK to become carbon neutral by 2050.
- National policy and funding are changing rapidly in many areas to reflect these pledges.
- The Government's "10-point Plan for a Green Industrial Revolution" indicates the importance placed on supporting the green economy, for its capability to support the carbon neutral ambition, as well as the opportunity to provide employment and skills to support economic recovery.
- Grants are being offered to support decarbonisation of public sector buildings, council housing and to help individuals make energy efficiency improvements to their homes.

Swindon and Wiltshire context

- The Swindon and Wiltshire Local Enterprise Partnership produced a Local Energy Strategy in 2018 which focuses on four key priorities for the area:
 - Smart grids and mitigating constraints
 - Hydrogen technology innovation and deployment
 - The transition to new energy vehicles
 - Low carbon growth
- Swindon Borough Council statement as part of 2020 draft Carbon Reduction Strategy: 'SBC recognises the impact of climate change and the need to be sustainable and as such will be carbon neutral as an organisation by 2030. In parallel to this, we will work with all interested groups in an effort to make the whole Borough carbon neutral by 2050 in line with national targets.'

Wiltshire context

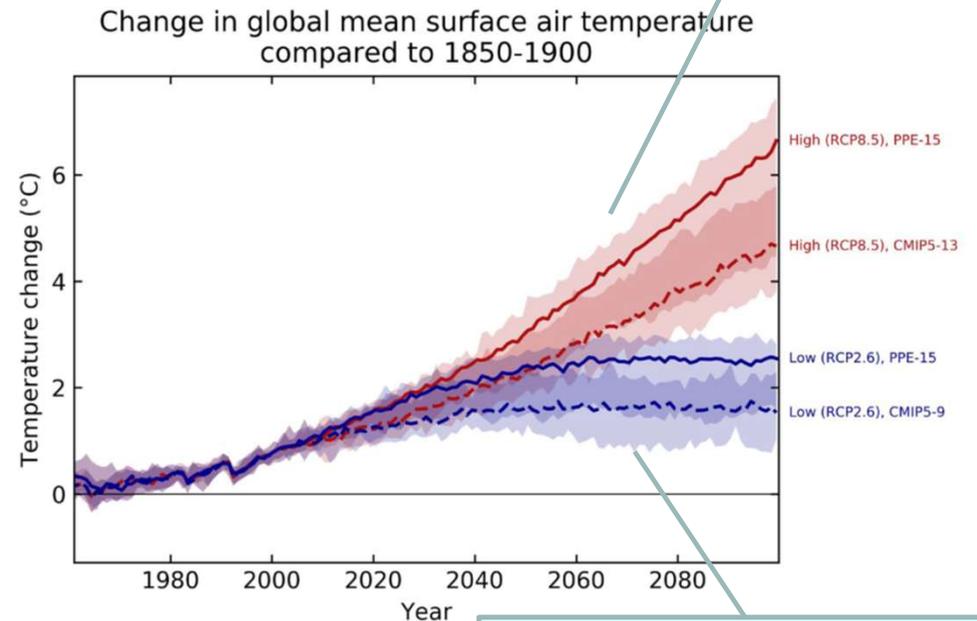
- Climate Emergency declaration February 2019. Ambition for Wiltshire to become carbon neutral by 2030.
- Commitment July 2019 for Wiltshire Council to become carbon neutral by 2030.
- Dedicated climate budget and team from 2020/21
- Climate programme builds on previous work by the council – eg ECO Strategy 2011, Carbon Management Plan 2013, Climate Change Adaptation Plan 2016

Climate impacts and adapting to climate change

High emissions scenario - by 2070's we will expect:



- Summer temp +3.7 to 6.8°C
- Winters warmer +1.9 to 3.3°C
- Summers drier
- More frequent hot spells
- Soil moisture decreases
- Winter – increase in frequency and intensity of wet days
- Summer – increase intensity of rainfall



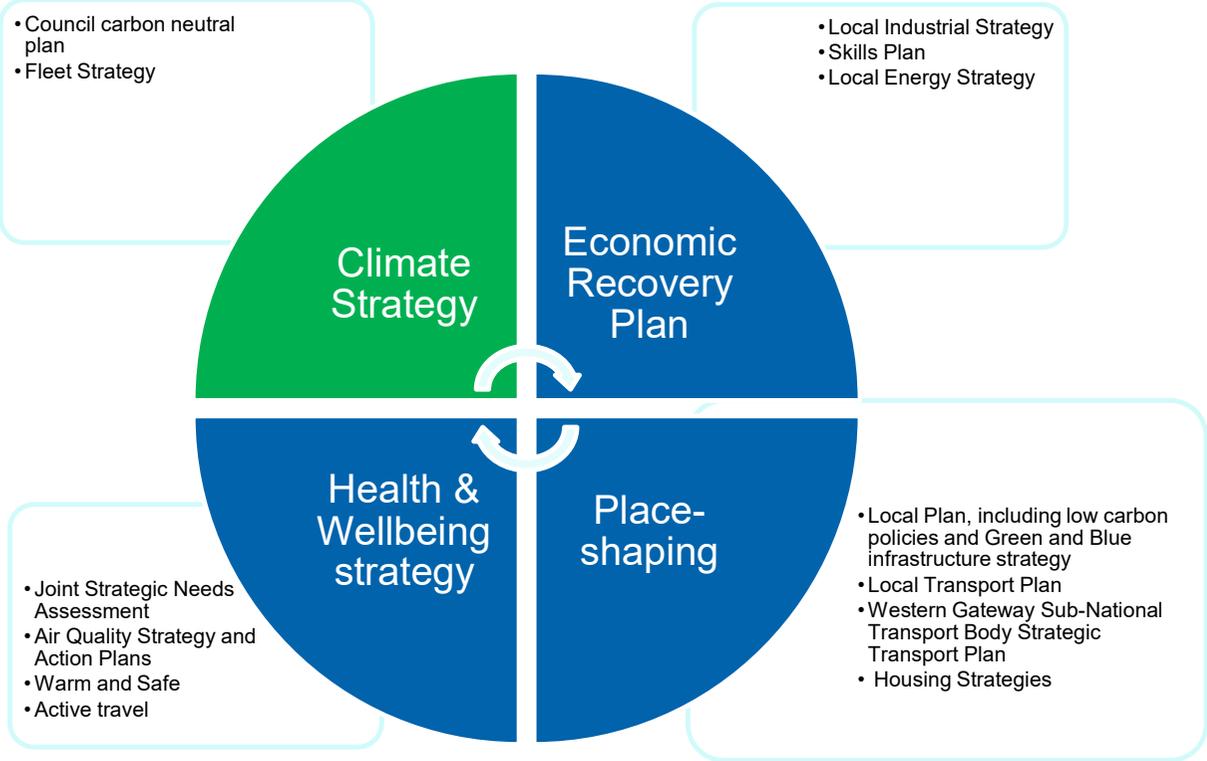
High emissions scenario

Low emissions scenario e.g. Carbon neutral by 2041

Whilst we work towards low emissions, we need to plan for the worst scenario

Source: [UKCP Global – Low Emissions Scenario \(RCP2.6\)](#) and [UKCP Headline Findings \(2019\)](#)

Where does a new Climate Strategy fit in?

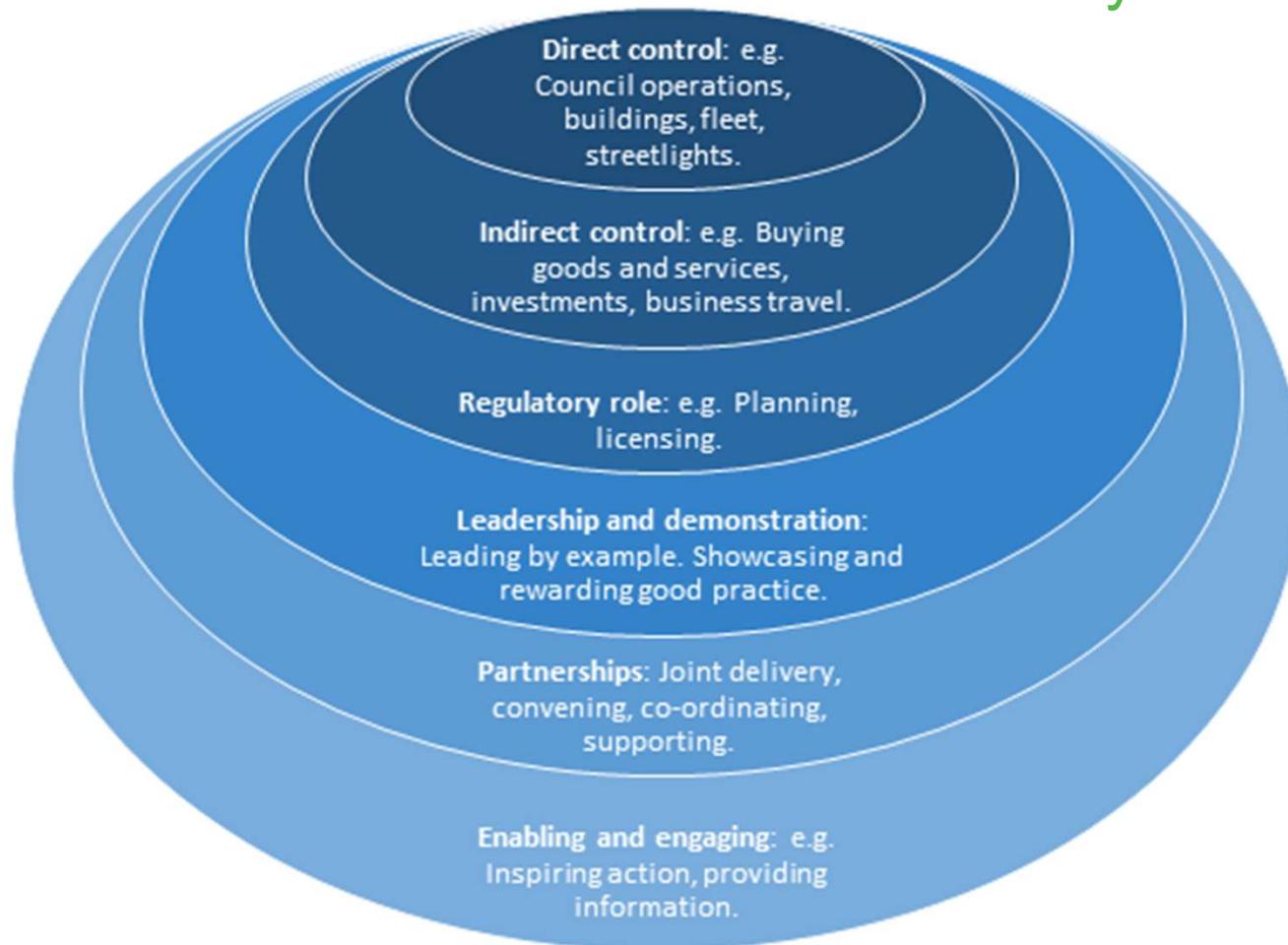


Our approach: climate strategy discussion document

Provides an overview of Wiltshire Council's approach to developing climate strategy as a basis for discussion – available [here](#) (item 14, appendix 1)

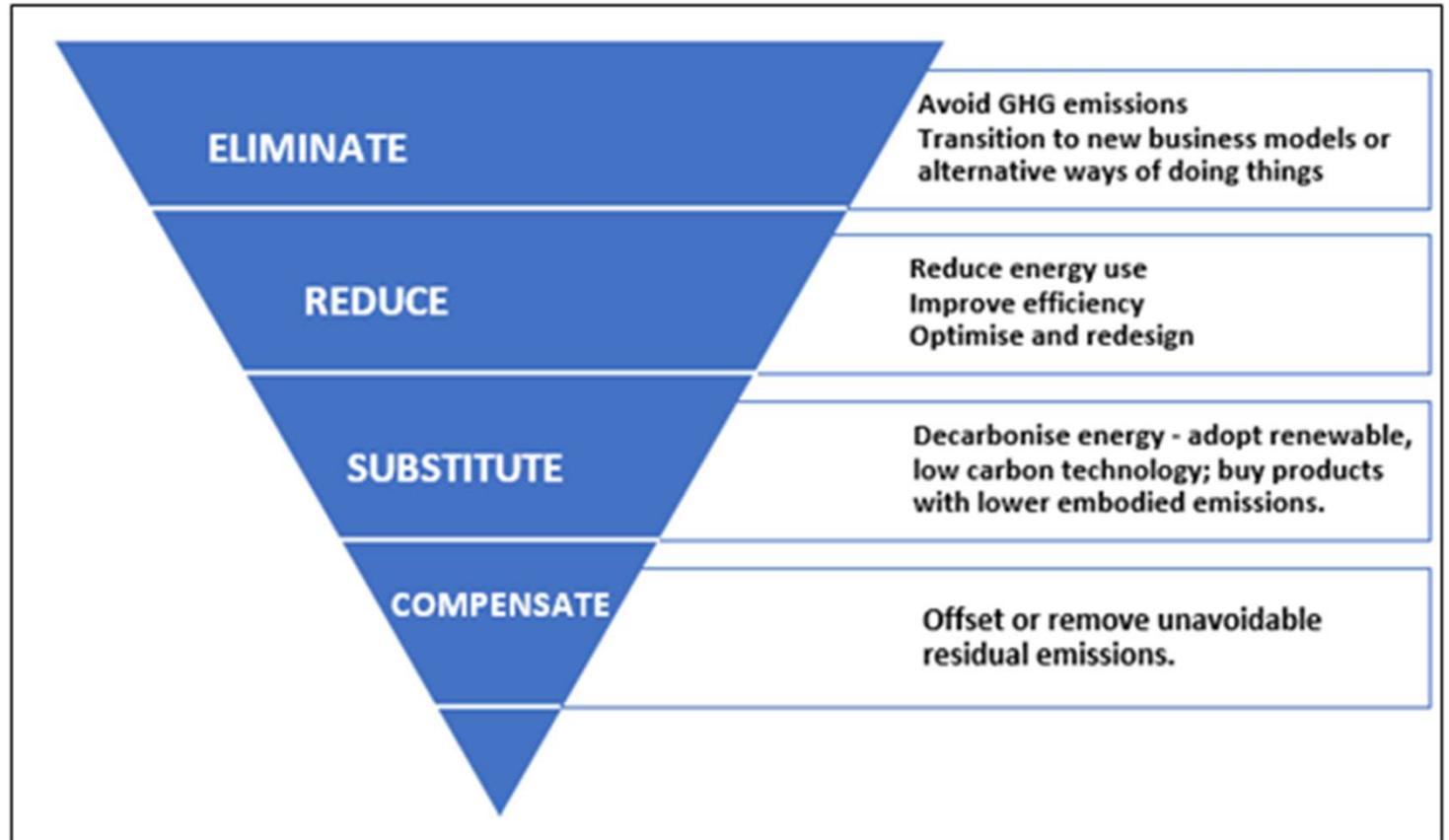
- Sets out the initial evidence base for our climate strategy
- Articulates what carbon neutral looks like for Wiltshire
- Shows the scale of the challenge and opportunities ahead
- Stimulates debate around priorities
- Engenders buy-in from a wide range of stakeholders to work together on the climate agenda
- Clarifies the role of the council

Delivery themes: LA levers of Influence



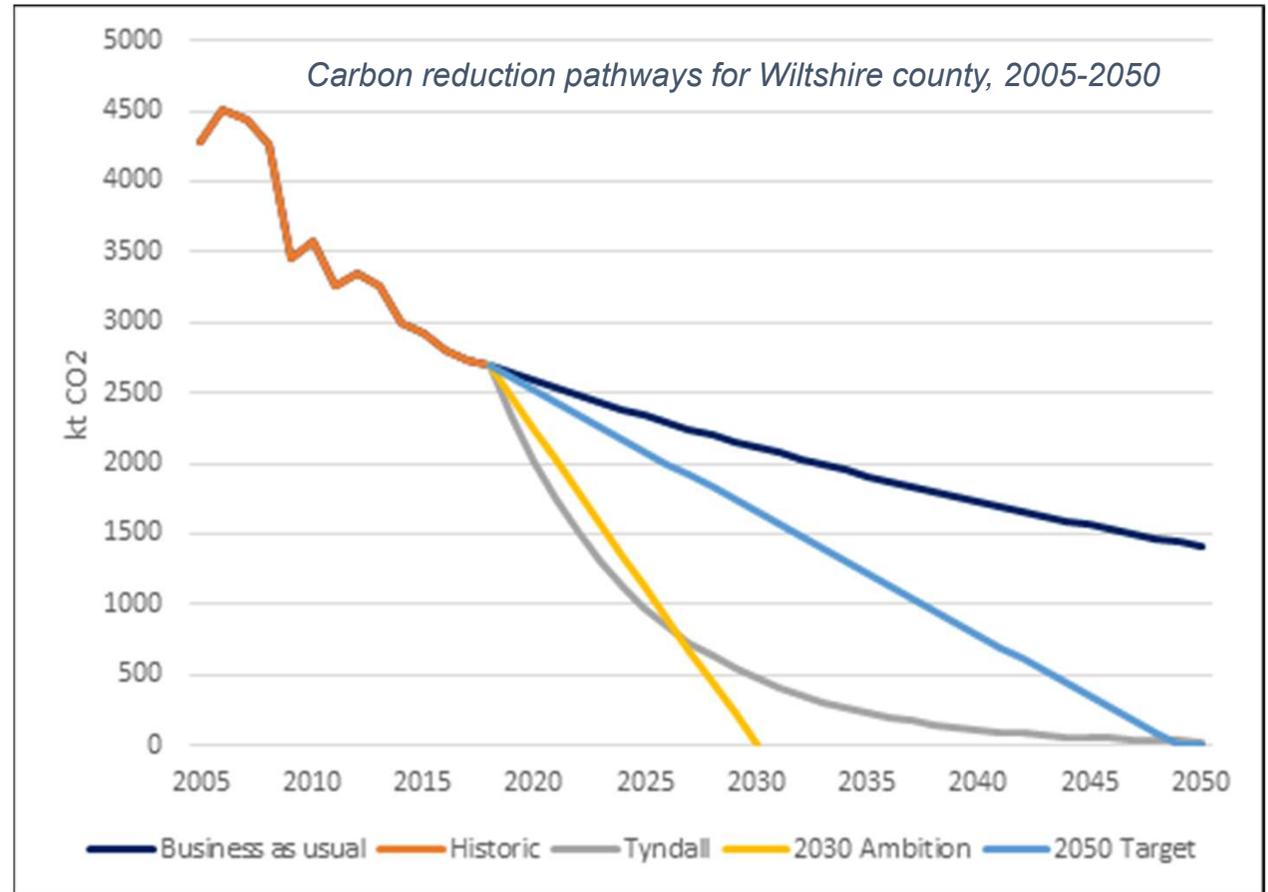
Our approach: key principles

- Evidence based
- Carbon hierarchy
- Equitable
- Embedding climate considerations in decision-making
- Co-benefits

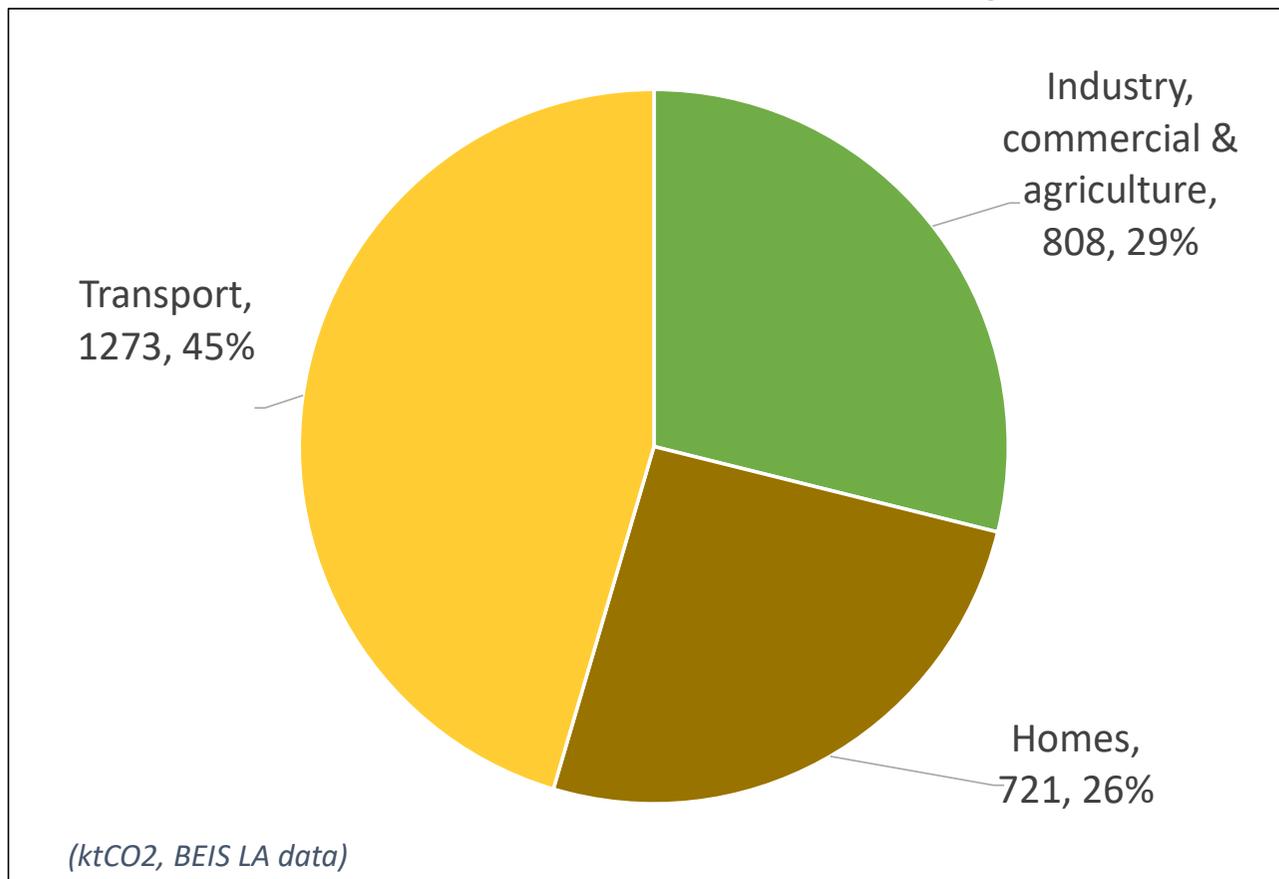


Wiltshire Climate Emergency: Our overall challenge

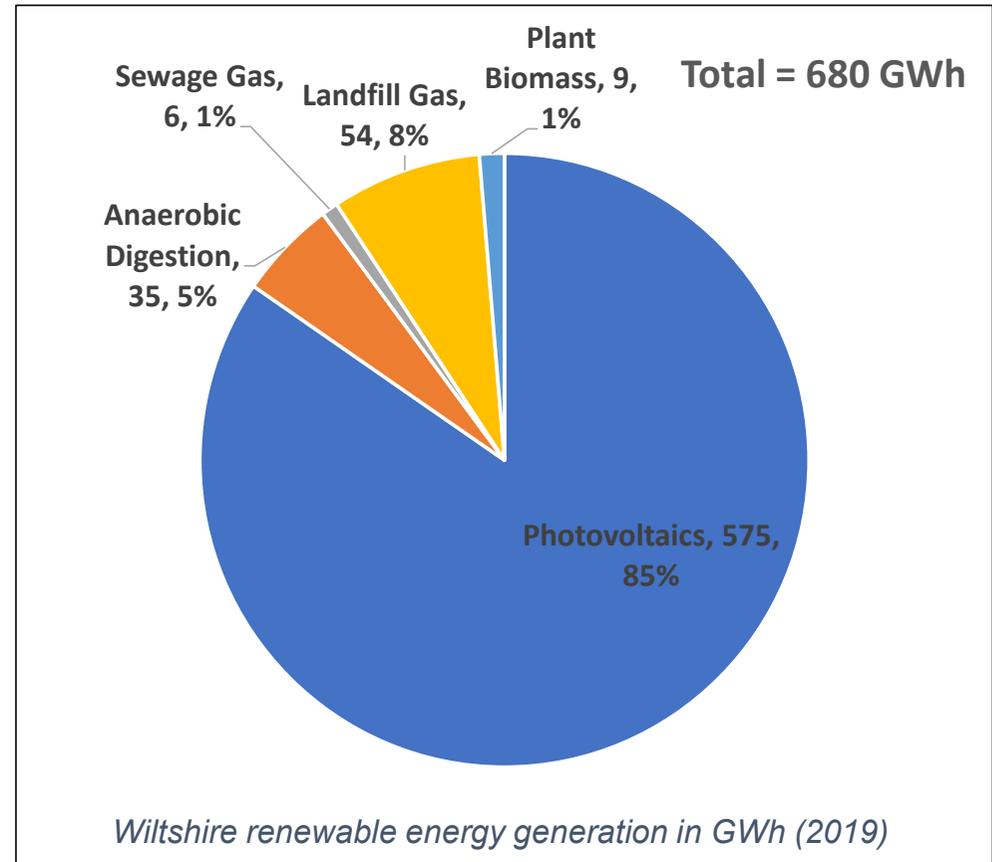
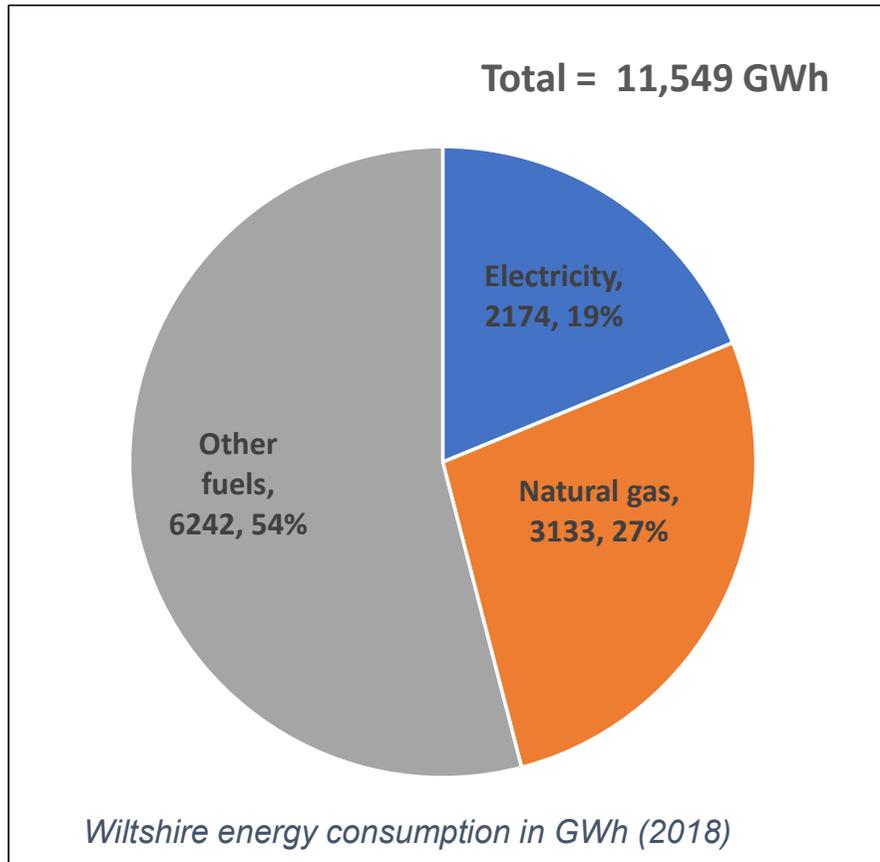
- Lines for **no action**, a reduction in emissions to get to Wiltshire ambition of **net zero for 2030** and national target of **net zero for 2050**
- **Tyndall** line relates to reductions based on a **science-based target and carbon budget**.
 - On the Tyndall line the carbon budget for each time period relates to the area under the graph



Wiltshire context: Wiltshire emissions by source 2018



Wiltshire context: Energy consumption & renewables



Energy: Where do we need to get to

- Reduce the amount of energy we use
- Decarbonise the remaining emissions
- More interactive and Smart grid

Air conditioning

To be minimal as building regulations will have prioritised passive cooling, though some may have reversible heat pumps.

Heat pump

New houses and existing house could have a heat pump system for space heating.

Domestic battery

To store solar energy generated from their rooftop solar PV.

Rooftop solar PV

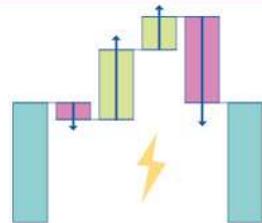
New and existing homes could have rooftop PV system which generates most of the households electricity in summer.

Electric vehicle

Has the potential to act as a form of storage.

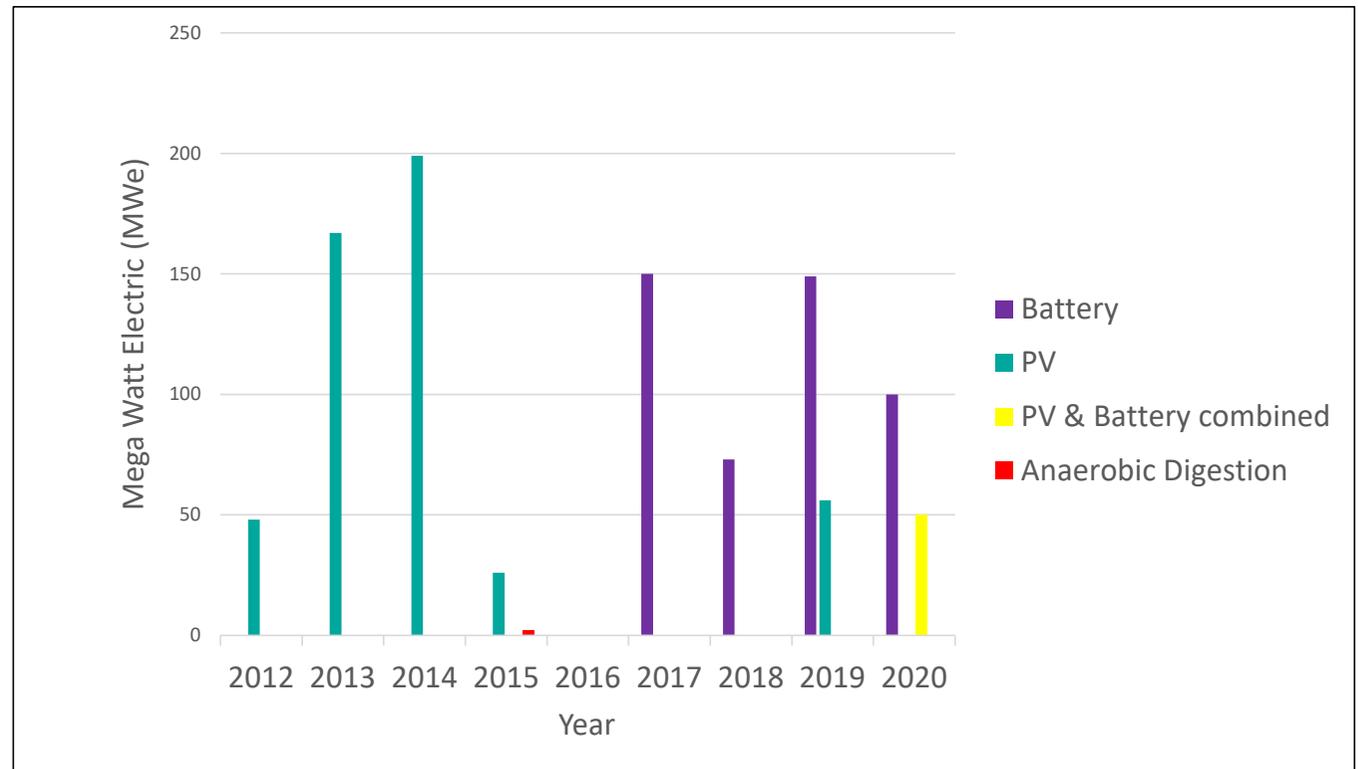
Flexibility services

Homes with 'smarter' technologies could benefit from providing 'flexibility' services to the local electricity network, such as demand side response.



Energy : Scale of the challenge

- 6% of energy / 30% of electricity in Wiltshire is currently from renewables
- Gas and other fossil fuels are a significant proportion of current energy use for heat and transport
- New technologies will be required
- Planning applications show battery storage coming forward at scale



Planning applications submitted (and subsequently approved) larger than 1 MWe

Green & Circular Economy: Where do we need to get to?

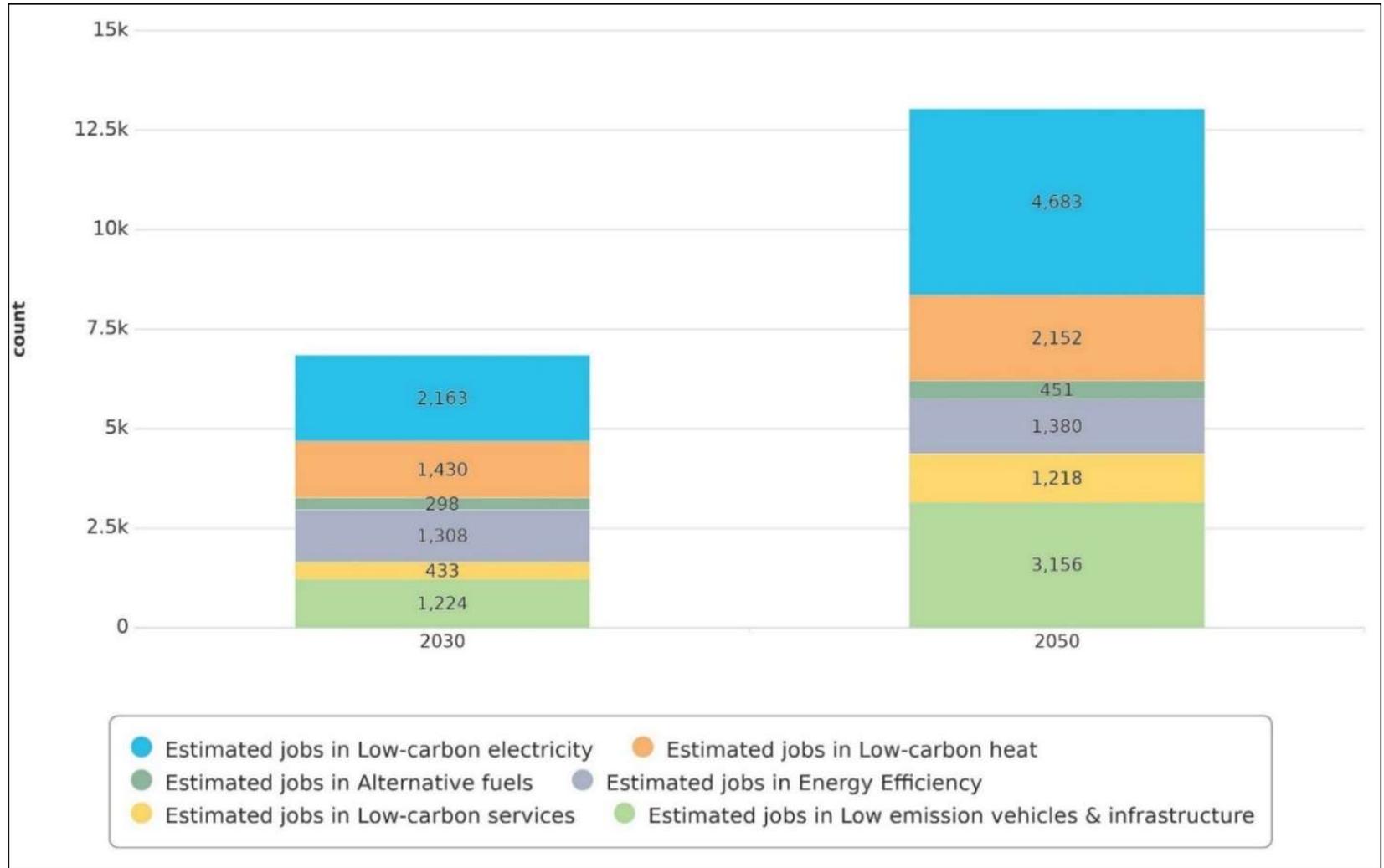
- Wiltshire to have a strong green economy - this means strengthening sectors such as renewable energy, sustainable construction, water management and sustainable transport
- Wiltshire businesses to be carbon neutral and climate resilient
- Circular economy is resource efficient and provides social good



Green & Circular Economy: Scale of the challenge

- Total jobs in Wiltshire = 207,000 (2019). Current green jobs = 1800.
- Projected number of green jobs:
 - 6,856 by 2030 - compound annual growth rate of c. 12% 2030 (vs. c. 20% for England)
 - 13,040 by 2050 - compound annual growth rate of c. 3% (slightly better than England average).

Estimated number of direct green jobs by sector in Wiltshire



What jobs will be needed to enable this transition?

- Building trades able to deliver low carbon retrofit of buildings
- Heat pump installers (rather than gas boiler installers)
- Heat network design engineers, pipe layers, road diggers, and system operators
- Power systems engineers
- Smart energy innovators and data analytics
- Solar panel installers
- Electric Vehicle charging infrastructure installation and maintenance
- Bus drivers, cycling instructors & maintenance
- Freight consolidation scheme operators and drivers
- Recycling operatives
- Household, community & business engagement and advisory skills.

What Wiltshire Council can do

- Stimulate the green and circular economy and local supply chains by championing best practice in key sectors such as waste management and recovery, housing retrofit, electric vehicles and investment in renewables.
- Work in partnership with Wiltshire's larger companies on resource efficiency.
- Work with suppliers to encourage them to decrease their carbon emissions.
- Work with local networks to support SMEs to become resilient and sustainable.
- Continue to promote 'shop local' campaigns.
- Support the growth of businesses focused on sustainability and attract new ones to invest in the county.
- Work with training providers and employers to increase training for green skills.
- Input to government policy and funding programmes, to make sure they are appropriate for Wiltshire residents and businesses.