

# People Select Committee

## Scrutiny Review of Home Energy Efficiency and Green Jobs for the Future

### How? Four high level objectives

Achieve net zero greenhouse gas emissions	Protect and enhance the natural environment
Use all resources efficiently and minimise waste	Adapt to the impacts of climate change

## Final Report February 2023

People Select Committee  
Stockton-on-Tees Borough Council  
Municipal Buildings  
Church Road  
Stockton-on-Tees  
TS18 1LD

## Contents

<b>Select Committee – Membership and acknowledgements</b> .....	4
<b>Foreword</b> .....	5
<b>Original Brief</b> .....	6
<b>1.0 Executive Summary</b> .....	8
<b>2.0 Introduction</b> .....	11
<b>3.0 Background</b> .....	13
<b>4.0 Evidence</b> .....	15
<b>5.0 Key Findings</b> .....	31
<b>6.0 Conclusion and Recommendations</b> .....	33
<b>Glossary of Terms</b> .....	34

## **Select Committee – Membership**

Councillor Marilyn Surtees (Chair)  
Councillor Jean O'Donnell (Vice Chair)  
Councillor John Gardner  
Councillor Eileen Johnson  
Councillor Niall Innes  
Councillor Lee Spence  
Councillor Sylvia Walmsley  
Councillor William Woodhead MBE  
Councillor Barry Woodhouse

## **ACKNOWLEDGEMENTS**

The Select Committee thank the following contributors to this review:

Neil Mitchell, Head of Environment, Leisure & Green Infrastructure, Stockton-on-Tees Borough Council  
Chris Renahan, Assistant Director, Inclusive Growth and Development, Stockton-on-Tees Borough Council  
Stephen Shaw, Environment & Greenspace Project Officer, Stockton-on-Tees Borough Council  
Julie Marsden, Economic Development Manager, Stockton-on-Tees Borough Council  
Gary Knight, Private Sector Housing Team Manager, Stockton-on-Tees Borough Council

Contact Officer: Rebecca Saunders-Thompson, Senior Scrutiny Officer  
Tel: 01642 528957  
E-mail: [rebecca.saunders-thompson@stockton.gov.uk](mailto:rebecca.saunders-thompson@stockton.gov.uk)

## **A Tribute to Stephen Shaw, Environment & Greenspace Project Officer, Stockton-on-Tees Borough Council**

We were all devastated to hear that our valued colleague and friend Stephen Shaw passed away over the Christmas period.  
Stephen worked for the authority for 34 years in a variety of roles, always in positions which helped our communities and residents.  
In August 2020 I was lucky enough to become a service manager, I feel even more fortunate to manage a superb group of people, Stephen was always a very important member of the team.  
Stephen helped to gather the evidence for this scrutiny review, he was extremely knowledgeable, well respected, polite, respectful and had a great passion for helping our most vulnerable of residents.  
Amongst many of his successes, the Big Community Switch was one that stood out. Designed to help our residents save money on energy bills, Stephen pushed this scheme to make us the highest performing authority in the country.  
Not only was Stephen extremely good at his job, he was funny, caring, compassionate and an excellent friend. He will be missed by the authority, my team and myself as a wonderful person who was loved by many.

*Tribute by Neil Mitchell, Head of Environment, Leisure & Green Infrastructure, Stockton-on-Tees Borough Council on behalf of the People Select Committee*

## Foreword

Following the People Select Committee's review of Home Energy Efficiency and Green Jobs for the Future, we are pleased to present the Committee's final report. At the time this report was written, the world is experiencing a climate change emergency and our nation is simultaneously facing an energy and 'cost of living' crisis.

To address these issues on a local level, this review aimed to understand what home energy efficiency funding is available and whether this meets the needs of residents living in the borough of Stockton-on-Tees. In conjunction with this, the review examined what work is taking place across the Tees Valley to create a local workforce fit for the demands of a green economy of the future with specific focus on capacity to delivery home energy efficiency measures in the borough.

Our recommendations highlight the need for new housing stock to be more energy efficient through tighter building regulations along with a commitment to raise awareness of new home energy efficiency initiatives and grants available to our residents. We have also recognised, through our recommendations, that highlighting and promoting 'green jobs' at all levels, including entry level jobs, is necessary.

We would like to extend our thanks to the Stockton-on-Tees Borough Council Officers for their contributions to this review. We would also like to pay tribute to one of the review's contributors, Stephen Shaw, Environment & Greenspace Project Officer, who sadly passed away in December 2022. Stephen provided much valued assistance to Members throughout his working life at Stockton-on-Tees Borough Council and will be sadly missed.

### **Cllr Marilyn Surtees - Chair**



**Councillor Marilyn Surtees  
Chair  
People Select Committee**



**Councillor Jean O'Donnell  
Vice- Chair  
People Select Committee**

## Original Brief

### Which of our strategic corporate objectives does this topic address?

The review will contribute to the following Council Plan 2021-24 priorities:

- A place with a thriving economy where everyone has opportunities to succeed  
This means that the Borough will have:
  - a growing economy
  - improved education and skills development
  - job creation and increased employment
- A place where people are healthy, safe and protected from harm  
This means the Borough will be a place where:
  - people live in cohesive and safe communities
  - people are supported and protected from harm
  - people live healthy lives
- Making the Borough a place that is clean, vibrant and attractive
  - implement the first stage objectives of the Carbon Reduction and Environmental Sustainability Strategy and develop the partnership and community work as a basis for future activity

### What are the main issues and overall aim of this review?

#### Home Energy Efficiency

There have been successful schemes in the past to encourage energy efficiency and reduce carbon, many of these schemes are targeted at poorly performing homes or people on restricted income. Any Government funding and initiatives should be set up in such a way as to encourage house owners to reduce carbon whilst making homes more efficient and cheaper to heat.

Soaring energy costs are also placing many residents in financial hardship any help with providing energy saving measure will reduce this burden on the elderly and vulnerable in society as well as improving their health and wellbeing whilst reducing carbon emissions.

The review would seek to understand what funding is available and whether this meets the needs of Stockton residents.

#### Green Jobs for the Future

Insulating homes, installing low carbon heating and supporting the green transition have the potential to create many local jobs, however, there are national skills shortages in these industries.

Climate change affects everyone and mitigating the impact of climate change may bring economic opportunities to the local area.

The scrutiny review will examine what work is taking place across the Tees Valley to create a local workforce fit for the demands of a green economy of the future with specific focus on

capacity to delivery home energy efficiency measures in Stockton.

**The Committee will undertake the following key lines of enquiry:**

- What financial support is currently available nationally and locally to help with home energy efficiency? Does this support reflect the needs of Stockton households taking into account our property base?
- What has been the take-up of funding available?
- What are the requirements for registered social landlords and private landlords to ensure a minimum energy efficiency standard within their housing stock?
- What opportunities are there for collaboration with key partners and the community?
- Are relevant courses offered by local education providers? What potential other courses could be offered if there was more demand?
- What is being done to encourage young people to consider education/training and careers in new and expanding green industries?
- What loans or grants are available to support adult education and training in green jobs?
- What work is taking place with business to understand local skills shortages in green industries?

**Provide an initial view as to how this review could lead to efficiencies, improvements and/or transformation:**

- Support to encourage house owners to insulate their homes
- Publicity of schemes/funding available to encourage take up in the context of reducing energy costs
- Tougher requirements on RSLs and private landlords on energy efficiency
- Engagement with TVCA, national government, local businesses and education providers to support outcomes in Stockton

## **1.0 Executive Summary**

This report presents the outcomes of the Scrutiny Review of Home Energy Efficiency and Green Jobs for the Future.

The aim of the review was to understand what funding was available for home efficiency improvements and whether this met the needs of Stockton residents. The review also examined the work that was taking place across the Tees Valley to create a local workforce fit for the demands of a green economy of the future.

The Select Committee's key findings were as follows:

- Climate change is a global and national issue which impacts the lives of Stockton residents, and will continue to do. This issue is also exacerbated by the ongoing energy crisis.
- Stockton-on-Tees Borough Council (SBC) aims to become net zero by 2032, whilst aiming for the Borough to be net zero by 2050. The Council has developed an Environmental Sustainability and Carbon Reduction Strategy. This review has highlighted SBC's four high level objectives to deal with climate change and achieve net zero in line with local and national targets.
- The Government has also committed to improving energy efficiency and achieving net zero. The Boiler Upgrade Scheme (BUS) is one example, examined as part of this review, of a government-led initiative to assist people in making their homes more energy efficient and reducing the use of fossil fuels.
- Previous energy efficiency schemes, such as 'The Warm Homes Fund', have been delivered across the Tees Valley and have provided assistance to residents in receipt of qualifying benefits and fuel poor households. Uncertainty over the level and type of future government funding for these schemes has also been raised.
- The review heard evidence that homeowners are encouraged to take a 'fabric first' approach to home energy efficiency. The aim is to ensure that a home is efficiently insulated before thinking about an upgraded boiler or heat pump.
- Currently, there are several alternatives to fossil fuel based systems which residents could use to make their homes more energy efficient. These include heat pumps (ground source and air source), solar photovoltaic (PV) panels, solar water heating systems, and biomass systems. This review has outlined the advantages of these alternatives and problems, such as cost and a general lack of understanding.
- The review suggested that we should concentrate on raising awareness of new home heating technologies and ensure that a communications package is implemented. The aim is to educate our residents and ensure that uptake of grants is high (regardless of who is delivering the scheme).
- As of 2020, 12.9% of Stockton households were classed as 'fuel poor'. This is lower than the regional average for Northern England of 14.4%. However, across the Borough, fuel poor households levels range from 30.5% in Mandale and Victoria to 3.4% in Ingleby Barwick.



- This review has uncovered that it is not currently a requirement for new homes to have solar panels, and other energy efficiency/generation measures, to be fitted as standard. Members suggested that correspondence should be sent to the relevant government minister to urge that legislation is passed regarding delivering increased energy efficiency/ energy production standards on new housing through more stringent building regulations.
- Evidence of continuing investment in 'green jobs' on Teesside was presented, including developments in sectors ranging from advanced manufacturing to health and biologics. Members commented that over half of projected 'green jobs' required a bachelors degree but only a small percentage required GCSEs. There were also concerns over the length of time that 'green technologies' have taken to develop.
- In terms of Stockton's approach to 'green jobs', the Council's Employment and Training Hub is working in partnership with external organisation to deliver workshops, provide training, and host recruitment events.

## **Conclusion**

The consequences of climate change have an impact on each Stockton-on-Tees borough resident and will continue to do so. As part of global efforts to combat climate change, this review focussed on the improvement of home energy efficiency and the development of local employment in green industries.

The ongoing national energy and cost of living crises means that there is an increased need for residential dwellings to be more energy efficient and residents to be fully aware of funding available to make the necessary improvements or changes. Likewise, it is essential that regional investment in emerging green industries continues to provide employment opportunities to address current skills shortages.

Following this review, our recommendations centre on awareness raising of grants and alternative fossil fuel-based systems along with writing to government to urge them to improve energy efficiency standards on new housing developments. The recommendations have also captured the Council's continued commitment to deliver its Environmental Sustainability and Carbon Reduction Strategy and 'green jobs' workshops and training.

## **Recommendations**

1. That correspondence is sent to the relevant government minister to urge that legislation is passed regarding delivering increased energy efficiency/ energy production standards on new housing through more stringent building regulations.
2. That a communications package is implemented to raise awareness amongst residents of new home efficiency initiatives and grants.
3. That Stockton-on-Tees Borough Council's (SBC) Employment and Training Hub, and the Business and IP Centre, continue to work with external businesses and agencies to deliver 'green jobs' workshops, training and host recruitment events aimed at all levels including entry level jobs.

4. That there is continued delivery of the four high-level objectives outlined within SBC's Environmental Sustainability and Carbon Reduction Strategy. This includes an overall aim for the authority to be Net Zero\* by 2032 and the wider borough by 2050. \*Net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.

## **2.0 Introduction**

2.1 This report outlines the findings and recommendations following the People Select Committee's scrutiny review of Home Energy Efficiency and Green Jobs for the Future.

2.2 The aim of the review was to understand what funding was available for home efficiency improvements and whether this met the needs of Stockton residents. The review also examined the work that was taking place across the Tees Valley to create a local workforce fit for the demands of a green economy of the future.

2.3 There have been successful schemes in the past to encourage energy efficiency and reduce carbon, many of these schemes are targeted at poorly performing homes or people on restricted income. Any Government funding and initiatives should be set up in such a way as to encourage house owners to reduce carbon whilst making homes more efficient and cheaper to heat. Soaring energy costs are also placing many residents in financial hardship. Any help with providing energy saving measures will reduce this burden on the elderly and vulnerable in society as well as improving their health and wellbeing whilst reducing carbon emissions.

2.4 Insulating homes, installing low carbon heating, and supporting the green transition have the potential to create many local jobs, however, there are national skills shortages in these industries. Climate change affects everyone and mitigating the impact of climate change may bring economic opportunities to the local area.

2.5 From a Stockton-on-Tees perspective, it was initially envisaged that a review of home energy efficiency and green jobs for the future could potentially lead to the following efficiencies, improvements and / or transformation:

- Support to encourage house owners to insulate their homes
- Publicity of schemes/funding available to encourage take up in the context of reducing energy costs
- Tougher requirements on RSLs and private landlords on energy efficiency
- Engagement with TVCA, national government, local businesses and education providers to support outcomes in Stockton

2.6 The Committee undertook the following key lines of enquiry:

- What financial support is currently available nationally and locally to help with home energy efficiency? Does this support reflect the needs of Stockton households taking into account our property base?
- What has been the take-up of funding available?

- What are the requirements for registered social landlords and private landlords to ensure a minimum energy efficiency standard within their housing stock?
- What opportunities are there for collaboration with key partners and the community?
- Are relevant courses offered by local education providers? What potential other courses could be offered if there was more demand?
- What is being done to encourage young people to consider education/training and careers in new and expanding green industries?
- What loans or grants are available to support adult education and training in green jobs?
- What work is taking place with business to understand local skills shortages in green industries?

2.7 The Committee heard from relevant Council Officers involved in green infrastructure and inclusive growth and development.

2.8 Recognising the increasing pressure on the Council's finances, it is imperative that in-depth scrutiny reviews promote the Council's policy priorities and, where possible, seek to identify efficiencies and reduce demand for services.

### **3.0 Background**

3.1. Further background information in relation to this scrutiny topic includes:

#### **Stockton-on-Tees Borough Council (SBC)**

SBC, 'Warm Homes Healthy People (WHHP)': <https://www.stockton.gov.uk/Warm-Homes-Healthy-People>

SBC, 'Environmental Sustainability and Carbon Reduction Strategy 2022-2032':  
[https://www.stockton.gov.uk/media/3265/Environmental-Sustainability-and-Carbon-Reduction-Strategy-2022-2032/pdf/Environmental\\_Sustainability\\_Carbon\\_Reduction\\_Strategy\\_2022-2032\\_Accessible.pdf?m=63798739948380000](https://www.stockton.gov.uk/media/3265/Environmental-Sustainability-and-Carbon-Reduction-Strategy-2022-2032/pdf/Environmental_Sustainability_Carbon_Reduction_Strategy_2022-2032_Accessible.pdf?m=63798739948380000)

#### **National Strategies, Schemes, Reports**

HM Government, Hydrogen Strategy (August 2021):  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1011283/UK-Hydrogen-Strategy\\_web.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1011283/UK-Hydrogen-Strategy_web.pdf)

HM Government, Net Zero Strategy (October 2021) Report:  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1033990/net-zero-strategy-beis.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf)

HM Government, Heat and Buildings Strategy (October 2021):  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1044598/6.7408\\_BEIS\\_Clean\\_Heat\\_Heat\\_Buildings\\_Strategy\\_Stage\\_2\\_v5\\_WEB.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044598/6.7408_BEIS_Clean_Heat_Heat_Buildings_Strategy_Stage_2_v5_WEB.pdf)

Climate Change Committee, 2021 Progress Report to Parliament (includes background information, data, and links to reports):  
<https://www.theccc.org.uk/publication/2021-progress-report-to-parliament/#downloads>

HM Government, Response to Climate Change Committee 2021 Progress Report to Parliament:  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1026734/government-response-ccc-progress-report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1026734/government-response-ccc-progress-report.pdf)

HM Government, British Energy Security Strategy (April 2022):  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1069969/british-energy-security-strategy-web-accessible.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1069969/british-energy-security-strategy-web-accessible.pdf)

HM Government, UK's Nationally Determined Contribution, (September 2022) (Formal submission of the UK's updated Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC) under the Paris Agreement, in response to the Glasgow Climate Pact):  
[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1109429/uk-nationally-determined-contribution.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1109429/uk-nationally-determined-contribution.pdf)

HM Government, Boiler Upgrade Scheme (BUS):

<https://www.gov.uk/guidance/check-if-you-may-be-eligible-for-the-boiler-upgrade-scheme-from-april-2022>

HM Government, 'Find an energy certificate': <https://www.gov.uk/find-energy-certificate>

HM Government, 'Check if heat pump could be suitable in your home':

<https://www.gov.uk/check-heat-pump>

HM Government, 'Find ways to save energy in your home':

<https://www.gov.uk/improve-energy-efficiency>

### **Tees Valley**

Home Upgrade Grant (HUG), managed by the Tees Valley Combined Authority: <https://teesvalley-ca.gov.uk/net-zero/home-upgrade-grant-hug/>

Tees Valley Hydrogen Hub: <https://www.gov.uk/government/news/tees-valley-hydrogen-hub-boosted-by-20-million-competition->

## 4.0 Evidence

### Energy Efficiency/ Carbon Reduction – future direction

4.1 Climate change poses a real threat to society and over time will impact on all residents of Stockton-on-Tees. The natural environment is threatened by climate change. The impacts of more extreme weather are already being felt and many species of animals are in steep decline. The council delivers services which contribute to greenhouse gas emissions and can act as an influencer.

4.2 In the UK, climate change and the energy crisis will directly influence health outcomes through changing exposure to heat and cold, air pollution, pollen, food safety risks, disruptions to access to and functioning of health services and facilities. The most vulnerable in our society will be disproportionately affected.

### Influence and a Borough Wide Response

4.3 Stockton-on-Tees Borough Council (SBC) have developed a strategy which sets out areas of work which will contribute to the achievement of local and national targets. The authority aims to be Net Zero by 2032. SBC will be working with partners to work to the Government aim of being Net Zero by 2050. Endorsed by Cabinet in March 2022, an action plan is now being created.

4.4 How? Achieve net zero

Aim 1: Achieve net zero greenhouse gas emissions  
SBC will do this by:

- Improving energy efficiency to reduce harmful emissions
- Reducing energy demand wherever possible
- Accelerating the shift towards use of sustainable energy
- Capturing and storing carbon in woodlands and other natural habitats

### How? Four high level objectives

Achieve net zero greenhouse gas emissions	Protect and enhance the natural environment
Use all resources efficiently and minimise waste	Adapt to the impacts of climate change

4.5 How? Natural environment

Aim 2: Protect and enhance the natural environment  
SBC will do this by:

- Protecting, extending and connecting areas of natural habitat
- Helping to address the decline in native species
- Taking action to improve water quality and reducing local demand for water
- Helping to improve air quality by reducing harmful emissions

4.6 How? Resources

Aim 3: Use all resources efficiently and minimise waste

SBC will do this by:

- Sustainable purchasing and procurement of goods and services
- Increasing resource productivity and minimising levels of residual waste
- Achieving the highest possible levels of re-use and recycling of resources
- Minimising litter and waste crime and disposing of waste responsibly.

#### 4.7 How? Adaptation

Aim 4: Adapt to the impacts of climate change

SBC will do this by:

- Ensuring council operations and services are resilient to the likely future impacts of climate change
- Increasing the preparedness and resilience of local communities and businesses
- Planning and adapting the Borough's built and natural environment to withstand the impacts of climate change, e.g. reducing and managing flood risk

4.8 Improving the energy efficiency of UK buildings and transport systems is the quickest way the council can support families and businesses, to respond to rising energy prices.

4.9 Over 90% of the nation's homes are heated by fossil fuels, accounting for a third of UK total gas use. The price spikes in the gas market mean households are particularly exposed to these changes and facing energy bills upwards of £2,000. (At the time this evidence was initially presented, a further price spike in the Autumn of 2022 was expected.)

4.10 Improving the efficiency of UK homes could reduce heating bills by around 20% and reduce the nation's dependency on foreign gas. Using a 'fabrics first' approach, energy efficiency measures include double glazing, cavity wall, insulation to efficient light bulbs.

4.11 The Government has announced that by 2025, fossil fuel-based heating systems will not be installed in newly built homes. The Government also intends to phase out fossil fuel-based heating systems in all homes by 2035.

#### **The scale of the problem**

4.12 There are about 30 million buildings in the UK. Heating these buildings contributes to almost a quarter of all UK emissions. Addressing the carbon emissions produced in heating and powering UK homes, workplaces and public buildings can not only save money on energy bills and improve lives but can support up to 240,000 skilled green jobs by 2035.

#### **Government response**

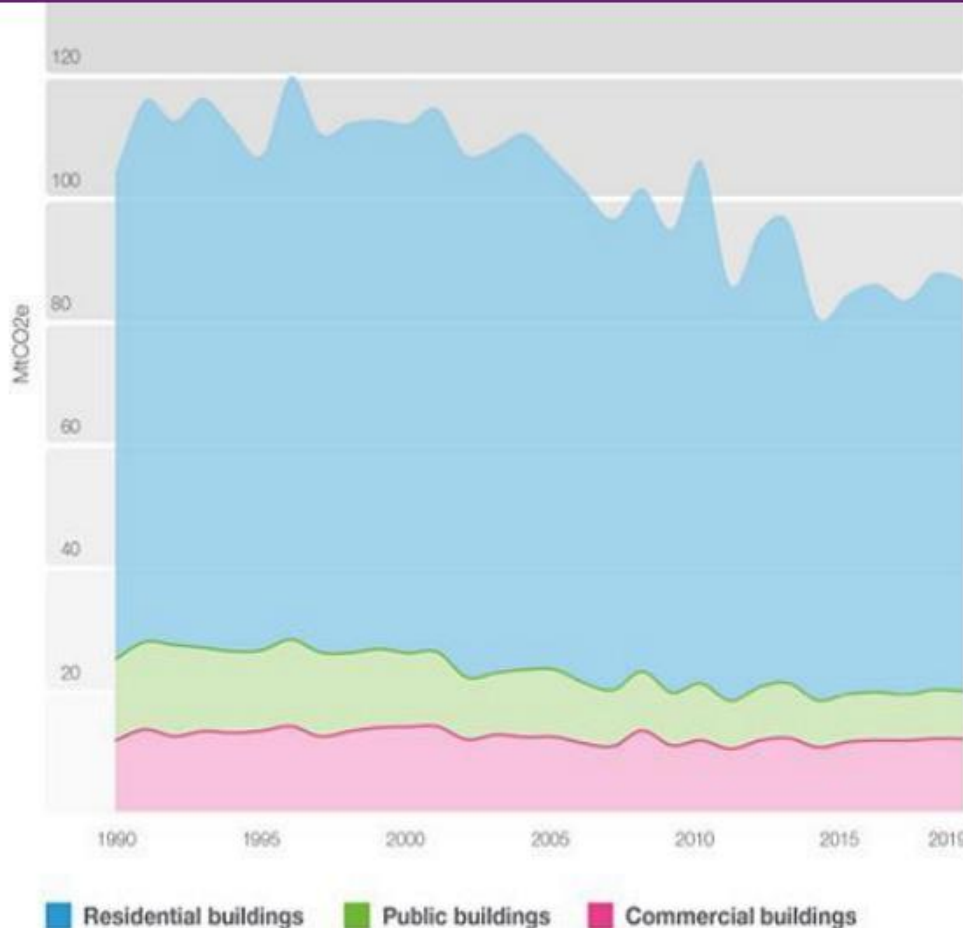
4.13 Improving energy efficiency, by reducing the amount of energy that households and businesses need, forms a crucial part of the British Energy Security Strategy. The Government want to continue making UK homes more comfortable and cheaper to run. Every therm of gas saved grows our energy security and brings jobs to the UK. The government has already saved households on the lowest



incomes around £300 a year on bills through energy efficiency measures – and they commit to invest over £6m on decarbonising the nation’s homes and buildings.

4.14 The government has published the Heat and Buildings Strategy with an accompanying £3.9 billion of support with £1.8m for low-income households. It has also expanded the Energy Company Obligation to £1 billion per year from 2022-2026, helping 133,000 low-income households. The government has set a 2035 date by which it intends to phase out the sale of new and replacement gas boilers. The government is also introducing a package of measures to increase deployment of heat pumps to 600,000 installations per year by 2028 and expanding heat networks through the Green Heat Networks Funds.

**4.15 Proportion of direct emissions from heat in buildings from 1990 to 2019 split by building type – commercial, public sector and residential.**



**Challenges**

4.16 **Authority control and Tees Valley Combined Authority (TVCA) lead:** In some instances, funding allocation is out of SBC control and there is greater Tees Valley Combined Authority (TVCA) control over the division of funding.

4.17 **Revenue implications:** SBC has a crucial role in the coordination, promotion and strategic alignment of schemes not in our direct control. Direct funding to contractors or schemes delivered by the TVCA do not financially benefit the council. The council therefore has a funding gap which it cannot overcome.

4.18 **Marketing/promotion:** There is work to do to educate and to inform the public about fossil fuel alternatives. There is also a need to change negative public opinions over air source and ground source heat pumps.

4.19 **Lack of influence:** Funding comes from national government and SBC don't always find out until close to the time of implementation. Also, the council cannot usually influence how this funding is directed.

4.20 **Hydrogen:** There are three main types of Hydrogen:

- Grey Hydrogen is produced using fossil fuels without capturing the resulting Carbon.
- Blue Hydrogen is produced using fossil fuels with the resulting carbon stored through a carbon capture process.
- Green Hydrogen is produced using renewable power sources and is considered the most sustainable of the Hydrogen supply.

4.21 Blue and Green Hydrogen supply is currently limited forcing an inflated price. Hydrogen is considered a useful 'transition' fuel, but the source should always be considered. A percentage of Hydrogen can be included in a normal gas supply without significant impact upon home heating systems. Trials are currently being undertaken for 100% Hydrogen home heating predominantly led and championed by the gas supply companies.

4.22 **Costs:** Costs are spiralling. SBC officers undertake a 'fabric first' approach with a primary focus on the insulation of windows and lofts.

4.23 **Skills:** There is a skilled workforce shortage in all green technologies. Traditional employers and trades will be forced to adapt and evolve, for example, car servicing, boiler servicing. This skill gap needs to be reduced.

4.24 **Availability:** Solar equipment is becoming very popular. Material and equipment waiting times are currently high.

Strategy work

### **Council Plan 2021-2024 - Key priority: Fighting inequality**

4.25 "Inequality is a challenge in the Borough. We have affluent areas alongside areas of deprivation. Nine of our 26 wards are in the 10% most deprived wards in the country and there is a gap of 21 years in average life expectancy amongst men between the most and least deprived wards. We're committed to fighting this discrepancy and making sure more people enjoy a healthy and happy life here."

4.26 “Develop a new approach to tackling inequality in the Borough and to ensure that we deliver targeted support and help to those currently living in poverty to improve their outcomes, including around health inequalities and emotional health and wellbeing.”

4.27 The Committee questioned what Stockton-on-Tees Borough Council as an authority was doing to become more energy efficient and to save costs. Council Officers responded that due to the Council reducing the number of administration buildings that would have a significant impact. The Council was also working with the Citizens Advice Bureau through the Warmth Partnership to help residents claim all the benefits they were eligible for.

#### Debunking the terminology

##### 4.28 Heat pumps

There are two main types of heat pump –ground source and air source. They work by absorbing heat from a source and transferring it to a fluid, which is compressed to increase the temperature further. The heat is typically transferred from the fluid into water, which is then used to provide heating and hot water to the home. Heat source pumps worked differently to gas boilers as they kept the house at a constant temperature. Technology was improving all the time helping to reduce the price of heat pumps in line with the price of a gas boiler.

##### 4.29 Solar water heating

Solar water heating systems use solar panels, called collectors, fitted to your roof. These collect heat from the sun and use it to heat up water that’s stored in a hot water cylinder.

##### 4.30 Solar photovoltaics PV

Solar electricity panels, also known as photovoltaics (PV), capture the sun’s energy and convert it into electricity that can be used in the home.

##### 4.31 Biomass

Biomass systems burn wood pellets, chips or logs to heat a single room, or to power central heating and hot water boilers. While burning the wood does emit carbon dioxide, it’s at a lower level than coal or oil provided the fuel is sourced locally. Biomass is considered a sustainable option as long as new plants and trees continue to grow in place of those used for fuel.

4.32 The Committee raised the issue of companies cold calling residents for a window and doors check. Council Officers suggested that a direct approach to reputable companies should be made with avoidance of door-to-door salespeople.

#### Fuel Poor Households

4.33 Latest Government estimates that there are 3.2 million fuel poor households according to the Low-Income High-Cost Definition - i.e., 13.2% down from 13.4% in 2019.

4.34 The 2020 estimate for Stockton-on-Tees was 12.9% (10,816 households). The Estimate for North England was 14.4%.

In the Tees Valley the estimates are:

Darlington -13.4%

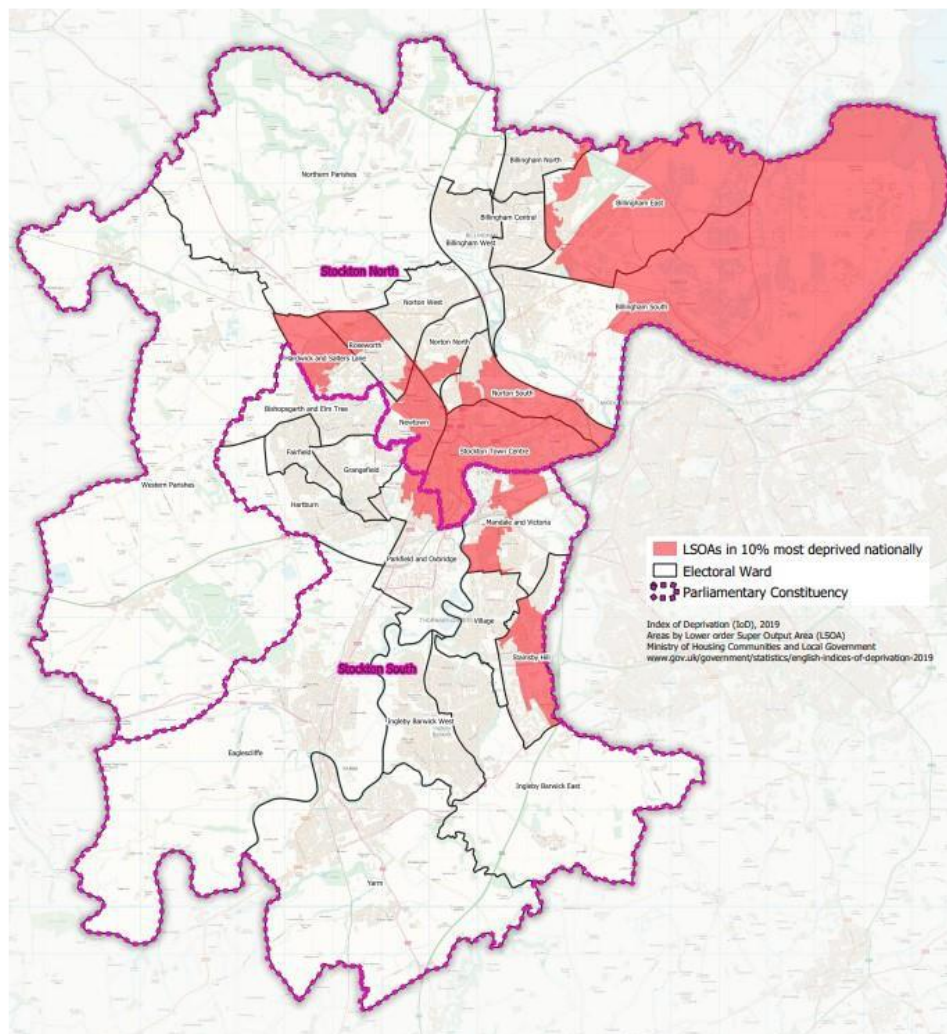
Hartlepool -14.6%

Middlesbrough 16.6%

Redcar & Cleveland 14.3%

Stockton 12.9%

4.35 Within the Stockton-on-Tees borough, fuel poor households range from 30.5% in a Lower Layer Super Output Areas (LSOA) (12C) in Mandale & Victoria down to 3.4% in an Ingleby Barwick LSOA (23E). Air quality meters are placed in different areas across the borough.



4.36 The Committee discussed the rising number of fuel poor households and that this problem needed to be addressed nationally.

## What has been delivered

### Energy Company Obligations (ECO)

4.37 Previous rounds of Energy Company Obligation (ECO) funding saw the large-scale cladding of solid wall properties in Stockton Town Centre, Parkfield, Oxbridge, Newtown and Mandale & Victoria. Streets of traditional terraced housing were clad in phases from 2012 to 2016.

Year	Boiler installations	Loft and cavity wall insulations	External Wall insulations	Total No of households improved 4999
2012/13	310	154	1205	
2013/14	563	300	1300	
2014/15	-	196	575	
2015/16	308	-	88	
<b>TOTAL</b>	<b>1181</b>	<b>650</b>	<b>3168</b>	

### The Warm Homes Fund

4.38 Actively delivering across the Tees Valley from November 2020 to March 2022. The Tees Valley Warm Homes Fund delivered 301 measures, specifically 235 first time Gas Central Heating Systems and 66 Air Source Heat Pumps.

4.39 234 interventions were in the top 25% of the Index of Multiple Deprivation. 33 Households were in receipt of qualifying benefits and 13 households were determined as Fuel Poor having checked their circumstances using a recognised FPC calculator. In total, 67 interventions were delivered within the Borough of Stockton-on-Tees.

### Local Authority Delivery (LAD2)

4.40 Managed by The Environment Team and due for completion in Stockton-on-Tees in September 2022 LAD2 has delivered at no cost to the householder across the borough of Stockton-on-Tees.

- 4.41 There were 147 energy efficiency measures including:
- External wall insulation to 6 homes
  - Solar PV to 89 homes
  - Air source heat pumps to 11 homes
  - New energy efficient windows to 14 homes
  - Loft insulation to 17 homes.

## What is currently available

### Warm Homes Healthy People (WHHP)

4.42 The WHHP programme is an award-winning collaboration of partner organisations, managed by SBC that support affordable warmth and contribute to

reducing fuel poverty. These assistance measures are targeted at the most vulnerable households.

4.43 WHHP was first delivered as a pilot programme in the winter of 2011/12 and has evolved into a well-recognised, reputable and valuable partnership project. The initiative is funded by SBC's Public Health.

4.44 There have been a range of significant outcomes relating to the health and wellbeing and financial circumstances of individuals and households. £576,092 of previously unclaimed benefits have been identified by WHHP11. This takes the combined total since 2012 to £4,184,542.

Outputs	No of households supported	No. of specific interventions delivered
WHHP5	335	595
WHHP6	452	861
WHHP7	287	623
WHHP8	300	1230
WHHP9	225	1411
WHHP10	206	831
WHHP 11	365	1,005

### Boiler Upgrade Scheme (BUS)

4.45 This scheme is open to domestic and small non-domestic properties in England & Wales from 2022 to 2025. BUS aims to encourage property owners to install low carbon heating systems such as heat pumps, actively encouraging the replacement of gas boilers with:

- £5,000 towards the cost of an Air Source Heat Pump (ASHP)
- £5,000 towards the cost of a biomass boiler
- £6,000 towards the cost of a Ground Source Heat Pump (GSHP)

4.46 There are no income or benefit criteria to qualify for BUS, private landlords and second homeowners are also able to apply for BUS.

### Home Upgrade Grant (HUG)

4.47 This is part of the current offer specifically for homes not connected to the gas network. HUG can contribute towards:

- Loft Insulation & Draft Proofing
- Cavity Wall Insulation
- Attic Room Insulation
- PV Solar Panels
- Air Source Heat Pumps

4.48 Households with a combined income of £30,000 or less are eligible to apply provided the property has an Energy Performance Certificate (EPC) rating of D to G. HUG is managed by the TVCA Energy Hub.

#### What is on the horizon

##### ECO4

4.49 This is an obligation placed on the largest energy suppliers in Great Britain and is focused on the least energy efficient homes occupied by low income and vulnerable households. Households may be eligible through receiving means-tested benefits, living in the least energy efficient social housing or through ECO4 Flexible Eligibility. The scheme is worth £1bn per annum and will run from 2022 –2026.

4.50 Stockton-on-Tees Borough Council can, and will once ECO4 is fully operational, have an influence on ECO Flex across our Borough.

4.51 Under the Eco Flex guidelines up to 50% of an energy supplier’s “obligation” can be legitimately met. By drafting and publishing a Statement of Intent (SOI) a local authority can influence the eligibility criteria under ECO Flex to prioritise vulnerable residents who are NOT in receipt of benefits.

4.52 The Committee questioned if there were any new funding opportunities and if different Council departments worked collaboratively to look for funding opportunities. Council Officers responded that currently there were no funding opportunities, but different departments and outside agencies were working collaboratively to identify new funding sources.

#### Requirements for Private and Registered Social Landlords

##### Requirements for Private Landlords

4.53 The Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015:

- Stipulates a minimum energy efficiency standard for private rented properties of a Band E on an Energy Performance Certificate (EPC)
- Imposes a prohibition on renting out a ‘sub-standard property’ (one which has an EPC banding of F or G)

4.54 There are certain exemptions to the legislation (6 exemption types and these must be registered by a landlord). Further information on exemptions can be accessed via the following link: <https://www.gov.uk/government/publications/private-rented-sector-minimum-energy-efficiency-standard-exemptions/guidance-on-prs-exemptions-and-exemptions-register-evidence-requirements#overview>

## Requirements for Registered Social Landlords

- 4.55 The minimum standards do not apply in the social housing sector. (The exclusion of social rented property is defined in the Energy Act 2011, section 42(2)):
- *A property will be excluded if the landlord is a body registered as a social landlord under Chapter 1 of Part 1 of the Housing Act 1996.*

## Green Jobs

- 4.56 'Green Jobs' are defined as employment in an activity that directly contributes to - or indirectly supports - the achievement of the UK's net zero emissions target and other environmental goals, such as nature restoration and mitigation against climate risks.

## Tees Valley Investments: Case Studies

### 4.57 Fuel Supply and Hydrogen

Protium, the UK's leading green hydrogen energy company has secured a location on Wilton Universal Group's site in Teesside, marking the area's largest announced green hydrogen project to date. Current plans are for the site to include up to 40MW of electrolysis capability, developed in two phases, including hydrogen storage. The building of a hydrogen production facility will provide Protium with the infrastructure necessary to generate renewable green hydrogen energy, with plans to supply local manufacturers once built. Protium was expected to open by 2026. Jobs would be created during the construction and there would be sustained employment once it opened.

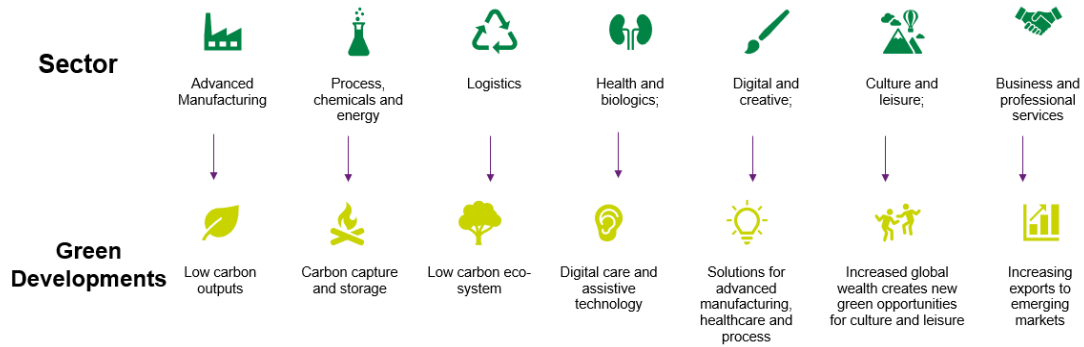
### 4.58 Natural Resources, waste and fluorinated gases

SeAH Wind's new £400m offshore wind foundation factory in Teesside. 1.13 million square foot facility will produce bases for offshore wind turbines based at Redcar's Teesworks industrial zone. 750 Direct jobs 1500 indirect.

- 4.59 The Redcar Energy Centre will be a state-of-the-art materials and energy from waste recovery facility generating baseload power to more than 100,000 homes and providing renewable heat to the UK's largest industrial zone. The project will create 450 full time jobs during construction, 80-100 new fulltime jobs during operation and will support many other jobs within the local supply chain.

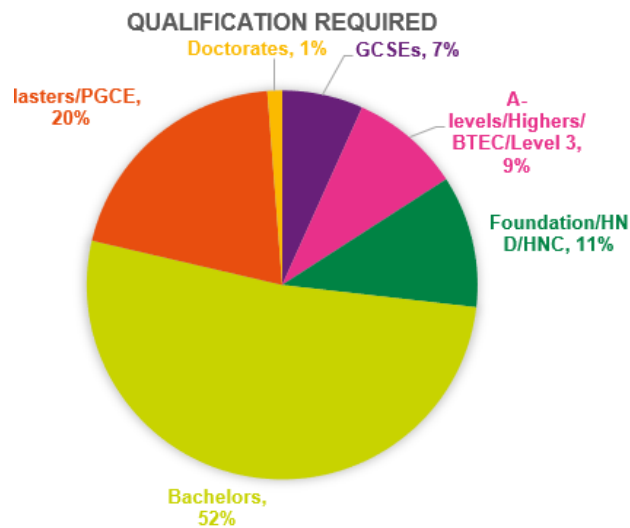
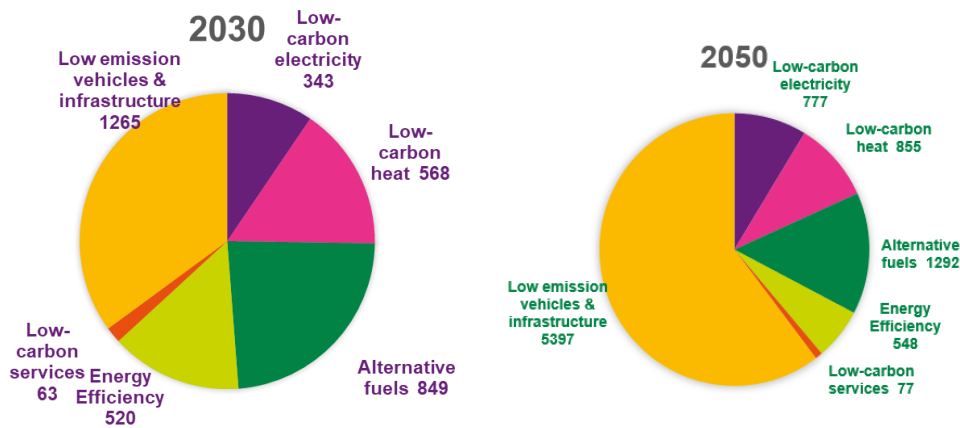


#### 4.60 Tees Valley: Priority Sectors and Green Opportunities



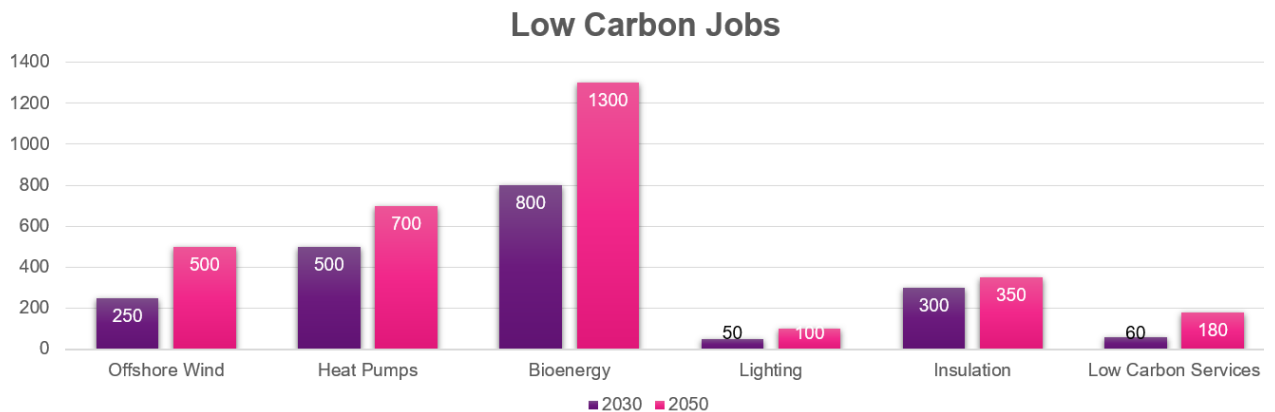
#### 4.61 Low Carbon Jobs in the Future

The following three graphics outline the predicted dominate areas of low carbon jobs across the region, and the qualifications required for employment in this sector:



4.62 The Committee highlighted that a high percentage of the area's green jobs would require a degree and questioned if there would be a way to upskill residents and entice them to stay in the area after their training was completed. Council Officers responded that in discussions with companies SBC would try to encourage them to take on less qualified employees and train them up.

#### 4.63 Stockton-on-Tees: Industry Projections



#### 4.64 Top Roles and Companies recruiting in the Tees Valley 2020-2022

##### Roles

- Environment Engineers
- Environmental Coordinators
- Environmental Engineers
- Environmental Health and Safety Managers
- Environmental Health and Safety Specialists
- Environmental Health and Safety Technicians
- Environmental Health Officers
- Environmental Managers
- Environmental Officers
- Environmental Services Managers
- Environmental Services Workers
- Environmental Specialists
- Hazardous Waste Specialists
- Recycling Sorters
- Recycling Workers
- Renewable Energy Analysts
- Renewable Energy Engineers
- Solid Waste Operators
- Sustainability Managers
- Wind Turbine Technicians

#### Companies

- NHS
- Highways England
- Middlesbrough Council
- Express International Group
- Environment Agency
- EDF
- General Electric
- Johnson Matthey
- Jacobs
- Middlesbrough College
- Teesside University
- Darlington Borough Council
- Stockton-on-Tees Borough Council

#### 4.65 **Current Programmes and Emerging Industries (With Common Training Requirements)**

##### Current Programmes

- Warm Homes Healthy People (WHHP) - assistance with boiler servicing (SBC & partners)
- Boiler Upgrade Scheme (BUS) – government grant for installation of heat pumps/biomass boilers
- Home Upgrade Grant (HUG) – insulation, draft proofing solar panels and heat pumps (TVCA)

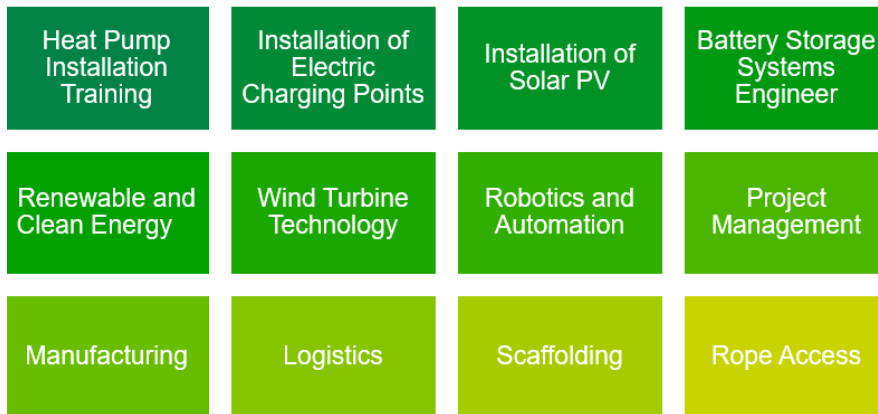
##### Emerging Industries

- Replacement Cavity Wall Insulation
- External Wall Insulation
- Solar Photovoltaic (PV) Panels
- Solar Thermal Panels
- Loft Insulation
- High Retention Storage Heaters
- Damp Proofing
- Double Glazing
- Air Source Heat Pump

##### Common Training Requirements

- Construction Skills Certification Skills (CSCS) Card
- Asbestos Awareness
- Manual Handling
- National Vocational Qualifications (NVQ) and City & Guilds Level 2 and 3

#### 4.66 **Teesworks Skills Academy: Training Programmes and Facilities**



### Employment and Training Hub: Partners and Events

4.67 The Learning & Skills Service are working in conjunction with the Council's Environmental Team and an external awarding body to develop a Carbon Literacy Programme.

4.68 Centrepont are experienced in delivering workshops to young people, one of their most successful programmes has been in conjunction with Kier construction where they work with disadvantaged young people and showcase the construction sector with job opportunities at the end. The Employment and Training Hub, based in Wellington Square, is working with Centrepont to deliver a similar programme around Green Jobs, providing key information and hands-on experience for young people so that they can understand the Green Jobs of the future in relation to construction and also understanding sustainability in construction, programmes will be delivered part classroom and part on location, with links to employment at the end.

4.69 The Dell Powering Potential Programme has been developed and delivered in partnership with the Hub, this is a series of enterprising workshops for young people from disadvantaged backgrounds across the Tees Valley looking at careers in Net Zero & Green Energy.

4.70 The Hub is procuring a Provider List of partners who can provide relevant training to the borough's residents and businesses. As part of this, there will be a search for providers who can deliver Green Skills provision to upskill and retrain residents. The Hub will also be hosting recruitment events to showcase 'Green' careers.

### Home Energy Efficiency Viewpoint Panel Survey Summary (October 2022)

4.71 As part of the review, an online survey was issued to members of SBC's Viewpoint Panel in October 2022. The aim of the survey was to understand Viewpoint Panel members' views and experiences of home energy efficiency, as well

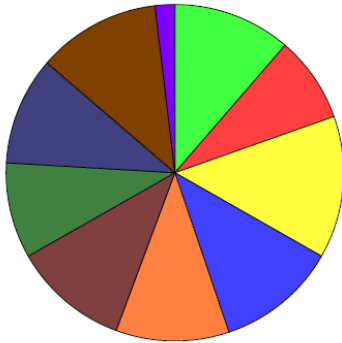
as to gauge their levels of awareness of improving home energy efficiency. In total, 64 Viewpoint Panel members responded to the anonymous survey.

4.72 The following graphics detail the survey's questions and provide a breakdown of responses:

**Question 1**

Question responses: 64 (100.00%)

What are the most effective ways of improving the energy efficiency of your home?

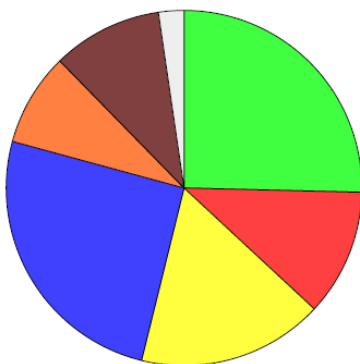


	% Total	% Answer	Frequency	Count
Turn off lights and appliances when not in use	11.32%	11.32%	75.00%	48
Buy A-rated appliances	8.25%	8.25%	54.69%	35
Insulation, including loft, cavity walls, floors, etc.	13.68%	13.68%	90.63%	58
Draught-proofing of the windows and doors	11.56%	11.56%	76.56%	49
Use energy-efficient bulbs	10.85%	10.85%	71.88%	46
Turn down your heating	11.08%	11.08%	73.44%	47
Don't overfill kettle	9.20%	9.20%	60.94%	39
Use the clothesline when possible	10.38%	10.38%	68.75%	44
Ensure your boiler is serviced and operating efficiently	11.79%	11.79%	78.13%	50
Other-please specify	1.89%	1.89%	12.50%	8

**Question 2**

Question responses: 61 (95.31%)

What measures are you exploring in the next 12 months in order to make your home more energy efficient?



	% Total	% Answer	Frequency	Count
Prioritise A-rated appliances when you have to replace	25.38%	25.98%	51.56%	33
Insulation, including loft, cavity walls, floors, etc.	11.54%	11.81%	23.44%	15
Draught-proofing of the windows and doors	16.92%	17.32%	34.38%	22
Use energy-efficient bulbs	25.38%	25.98%	51.56%	33
Energy efficient, low carbon heating system	8.46%	8.66%	17.19%	11
Other-please specify	10.00%	10.24%	20.31%	13
[No Response]	2.31%	--	4.69%	3
<b>Total</b>	<b>100.00%</b>	<b>100.00%</b>	<b>0%</b>	<b>130</b>

### Question 3

Question responses: 62 (96.88%)

What barriers are there that might prevent you from making energy efficiency investment in your home?

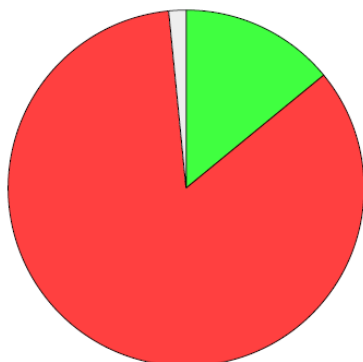


	% Total	% Answer	Frequency	Count
High costs	34.81%	35.34%	73.44%	47
Lack/difficult access to finance	9.63%	9.77%	20.31%	13
Lack of financial incentives	15.56%	15.79%	32.81%	21
Lack of reliable advice	16.30%	16.54%	34.38%	22
Contractor availability	16.30%	16.54%	34.38%	22
Other-please specify	5.93%	6.02%	12.50%	8
[No Response]	1.48%	--	3.13%	2
Total	100.00%	100.00%	0%	135

### Question 4

Question responses: 63 (98.44%)

Do you know how to access reliable home energy efficiency grant information?



	% Total	% Answer	Count
Yes	14.06%	14.29%	9
No	84.38%	85.71%	54
[No Response]	1.56%	--	1
Total	100.00%	100.00%	64

Table .2

4.73 Responders were also able to submit additional comments. The themes from these comments are summarised below:

- Decreasing use of electrical appliances, such as ovens. Utilising alternative appliances, such as slow cookers and air fryers.
- Wearing additional layers of clothing.
- Reducing use of central heating.
- Lowering central heating and radiator temperatures/settings.
- Improving insulation of lofts, windows, flooring.
- Installing solar panels.
- Accessing information about home energy efficiency grants from SBC, Citizens Advice Bureau, and charities.
- Issues with private landlords not insulating homes adequately.
- Financial and eligibility issues which have prevented residents from investing in home energy efficiency measures.
- Requests for further information from SBC on home energy efficiency measures and access to available grants.

## **5.0 Key Findings**

5.1 Climate change is a global and national issue which impacts the lives of Stockton residents, and will continue to do so. This issue is also exacerbated by the ongoing energy crisis.

5.2 Stockton-on-Tees Borough Council (SBC) is aiming to become net zero by 2032, whilst aiming for the Borough to be net zero by 2050. The Council has developed an Environmental Sustainability and Carbon Reduction Strategy. This review has highlighted SBC's four high level objectives to deal with climate change and achieve net zero in line with local and national targets.

5.3 The Government has also committed to improving energy efficiency and achieving net zero. The Boiler Upgrade Scheme (BUS) is one example, examined as part of this review, of a government-led initiative to assist people in making their homes more energy efficient and reducing the use of fossil fuels.

5.4 Previous energy efficiency schemes, such as 'The Warm Homes Fund', have been delivered across the Tees Valley and have provided assistance to residents in receipt of qualifying benefits and fuel poor households. Uncertainty over the level and type of future government funding for these schemes has also been raised.

5.5 The review heard evidence that homeowners are encouraged to take a 'fabric first' approach to home energy efficiency. The aim is to ensure that a home is efficiently insulated before thinking about an upgraded boiler or heat pump.

5.6 Currently, there are several alternatives to fossil fuel based systems which residents could use to make their homes more energy efficient. These include heat pumps (ground source and air source), solar photovoltaic (PV) panels, solar water heating systems, and biomass systems. This review has outlined the advantages of these alternatives and problems, such as cost and a general lack of understanding.

5.7 The review suggested that we should concentrate on raising awareness of new home heating technologies and ensure that a communications package is implemented. The aim is to educate our residents and ensure that uptake of grants is high (regardless of who is delivering the scheme).

5.8 As of 2020, 12.9% of Stockton households were classed as 'fuel poor'. This is lower than the regional average for Northern England of 14.4%. However, across the Borough, fuel poor households levels range from 30.5% in Mandale and Victoria to 3.4% in Ingleby Barwick.

5.9 This review has uncovered that it is not currently a requirement for new homes to have solar panels, and other energy efficiency measures, to be fitted as standard. Members suggested that correspondence should be sent to the relevant government minister to urge that legislation is passed regarding delivering increased energy efficiency/ energy production standards on new housing through more stringent building regulations.

5.10 Evidence of continuing investment in 'green jobs' on Teesside was presented, including developments in sectors ranging from advanced manufacturing to health and biologics. Members commented that over half of projected 'green jobs' required a bachelors degree but only a small percentage required General Certificates of Secondary Education (GCSEs). There were also concerns over the length of time that 'green technologies' have taken to develop.

5.11 In terms of Stockton's approach to 'green jobs', the Council's Employment and Training Hub is working in partnership with external organisations to deliver workshops, provide training, and host recruitment events.



## **6.0 Conclusions and Recommendations**

### **Conclusion**

6.1 The consequences of climate change have an impact on each Stockton-on-Tees borough resident and will continue to do so. As part of global efforts to combat climate change, this review focussed on the improvement of home energy efficiency and the development of local employment in green industries.

6.2 The ongoing national energy and cost of living crises means that there is an increased need for residential dwellings to be more energy efficient and residents to be fully aware of funding available to make the necessary improvements or changes. Likewise, it is essential that regional investment in emerging green industries continues to provide employment opportunities to address current skills shortages.

6.3 Following this review, our recommendations centre on awareness raising of grants and alternative fossil fuel-based systems along with writing to government to urge them to improve energy efficiency standards on new housing developments. The recommendations have also captured the Council's continued commitment to deliver its Environmental Sustainability and Carbon Reduction Strategy and 'green jobs' workshops and training.

### **Recommendations**

The Committee recommend:

- 1) That correspondence is sent to the relevant government minister to urge that legislation is passed regarding delivering increased energy efficiency/energy production standards on new housing through more stringent building regulations.**
- 2) That a communications package is implemented to raise awareness amongst residents of new home efficiency initiatives and grants.**
- 3) That Stockton-on-Tees Borough Council's (SBC) Employment and Training Hub, and the Business and IP Centre, continue to work with external businesses and agencies to deliver 'green jobs' workshops, training and host recruitment events aimed at all levels including entry level jobs.**
- 4) That there is continued delivery of the four high-level objectives outlined within SBC's Environmental Sustainability and Carbon Reduction Strategy. This includes an overall aim for the authority to be Net Zero\* by 2032 and the wider borough by 2050. \*Net zero means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.**

## Glossary of Terms

ASHP	Air Source Heat Pump
BUS	Boiler Upgrade Scheme
CSCS	Construction Skills Certification Skills
ECO	Energy Company Obligation
EPC	Energy Performance Certificate
HM Government	His Majesty's Government
HUG	Home Upgrade Grant
GCSE	General Certificate of Secondary Education
GSHP	Ground Source Heat Pump
LAD	Local Area Development
LSOA	Lower Layer Super Output Areas
NDC	Nationally Determined Contribution
NVQ	National Vocational Qualifications
RSL	Registered Social Landlord
SBC	Stockton-on-Tees Borough Council
TVCA	Tees Valley Combined Authority
UNFCCC	United Nations Framework Convention on Climate Change
WHHP	Warm Homes Healthy People