



NORTH STAR
Creating homes, building futures

Environmental Strategy

Road Map to
Zero Carbon by 2050



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♦ The Issue



Climate Crisis



We must all act now to try to keep global temperature increases **well below 2 degrees** a goal set by **the Paris Agreement**. (This is a legally binding international treaty on Climate Change).



Homes account for **23% of UK carbon emissions**, of which **10% is contributed by social housing**.

Increasing fuel poverty

18.4%

of social housing residents live in fuel poverty, they spend a **high proportion of their household income** to keep their homes at a **reasonable temperature**. This is only expected to increase.

Government targets and expectations

WE ARE REQUIRED TO:

Refurbish our
existing properties
to achieve

EPC C
by 2030

be

**Zero
Carbon**
by 2050

Need to add a point: "New build homes are expected to meet **Future Homes Standard (FHS)** by 2050, this requires:

31%
carbon reduction
from 2022



75%
carbon reduction
in 2025

Our Response



North Star's Leading and Growing Strategy to 2023 says



We aim to minimise our impact on the environment.



We strive to meet government targets, decarbonise our homes - existing and new - while supporting our customers to manage costs and to reduce the impacts of our own operations on the planet.

We are on a **journey to Net Zero by 2050**, with the need for meaningful and **quantifiable** steps to achieve this.

OUR STRATEGY WILL BE:



**Iterative,
Collaborative
+ Flexible,**

as technology, learning and national policy develop.

OUR AREAS OF FOCUS:

Existing Housing Stock

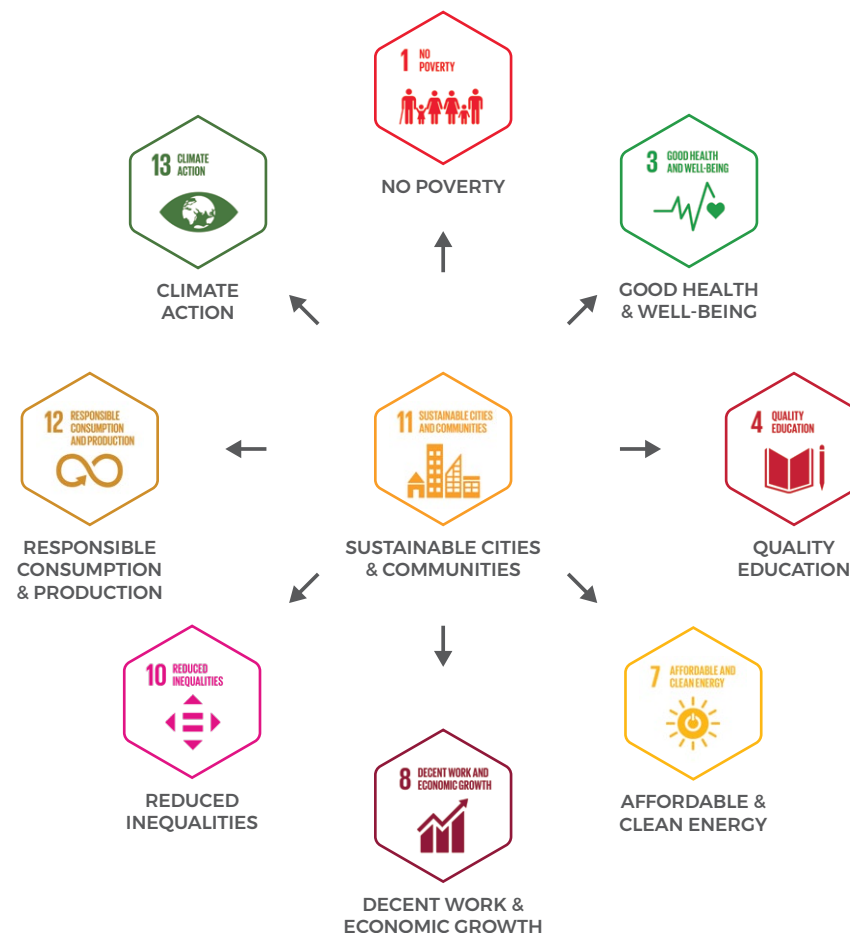
New Homes

Customers

Business Operations

OUR RESPONSE

How social housing contributes to the United Nations Sustainable Development Goals, recognised as the blueprint to achieve a better and more sustainable future for all.



Access to adequate, safe and affordable housing is a core target for SDG 11 Sustainable Cities and Communities. Having a decent, affordable home is an important determinant of people's health and wellbeing (SDG 3), has a positive knock-on effect on children's education (SDG 4), can help people into decent work (SDG 8), can contribute to reducing inequalities (SDG 10) and can provide a route out of poverty (SDG 1). Housing's carbon footprint can also be reduced through the right energy efficiency and construction measures (SDGs 7 and 13).



Below is a snapshot of our objectives and aims on the journey to environmental sustainability and net zero:

KEY AIMS

EXISTING HOUSING STOCK

1. All our homes will be at **EPC C or above by 2028**
2. Undertake **zero-carbon pilot** on a terraced property to inform future investment
3. We will work in partnership, to learn and to achieve the best value investment
4. Bid to access **government grant funding** to support our investment



CLIMATE ACTION

NEW HOMES ASPIRATIONS

1. All our new builds will produce at least **31% less Carbon** from 2022, EPC B as a minimum
2. **Explore models** for delivering zero carbon new builds under FHS
3. Enhance green space and promote **biodiversity** by **10%** from 2023
4. Carry out flood risk **assessments** and **mitigation** measures on all new development



CLIMATE ACTION



LIFE BELOW WATER



LIFE ON LAND

CUSTOMERS

1. Engage with customers to develop our approaches to reducing carbon emissions from homes, **actively listening, helping, advising and monitoring performance** of investment work
2. Support customers experiencing fuel poverty by providing **access to energy advice** and **financial support**



AFFORDABLE & CLEAN ENERGY



GOOD HEALTH & WELL-BEING



SUSTAINABLE CITIES & COMMUNITIES

BUSINESS OPERATIONS

1. Reduce our carbon footprint by **10% over next five years**
Reduce carbon emissions from **Endeavour House**: 1st phase installing photovoltaic panels, a **50% emissions reduction**
2. Refresh our **green travel policy** by **Q3 2022**
3. Develop our approach to **recycling & reducing waste, green procurement** and **purchasing**



INDUSTRY, INNOVATION & INFRASTRUCTURE



RESPONSIBLE CONSUMPTION & PRODUCTION

OBJECTIVES

Reduce the Carbon Emissions from our existing properties

Two phased approach to **decarbonisation of stock**:

All our housing stock to reach **EPC C** by 2028

Fully decarbonise stock, from 2030 to 2050

Ensure that new homes are future fit

Build **energy efficient** homes, in line with the **Future Home Standards (FHS)**:

31% | Carbon Reduction by 2022

75% | Carbon Reduction by 2025

Understand more about the needs of our customers

Help to:



Alleviate **fuel poverty**



Reduce carbon from homes

Reduce the impacts of what we do



Explore options to reduce our **carbon footprint**



Reduce **waste**

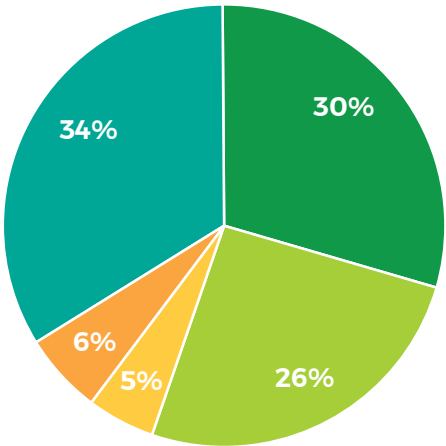


Existing Housing Stock

The Government wants us to refurbish our existing properties to achieve **EPC C by 2030** and be **Zero Carbon by 2050**

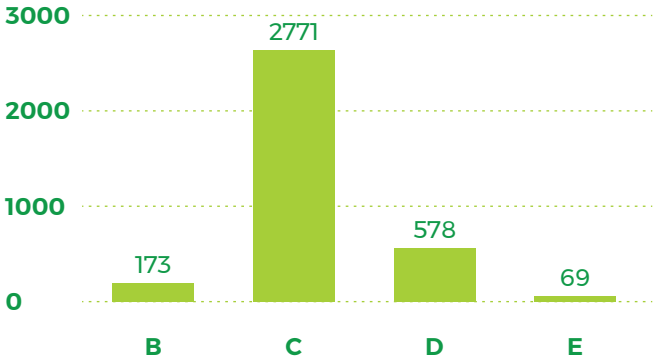
Energy:

We have a very diverse portfolio. Different solutions will be needed to decarbonise our properties. We know there will be challenges with our older terraced homes and non-traditional stock. Our approach and investment will be proportionate and progressed in a measured way.



- Pre 1950 Properties (excluding listed, conservation/converted)
- Post 1950 pre 2000 Properties (excluding listed/conservation)
- Converted Buildings/Non Traditional (excluding listed/conservation)
- Listed/Conservation Area
- Post 2000 Properties

NO. OF PROPERTIES BY EPC BAND



The **current EPC** of our housing stock is as above:

We have a proposed phased approach to decarbonisation:

- Fabric first investment, until 2028 focussing on:
 - insulation, and
 - draught proofing measures
- Fully decarbonise stock from 2028 to 2050
- Our older terraced and non traditional properties will be progressed in later phases to allow policy and technology to develop.



Existing Housing Stock

Our annual milestones for achieving EPC C for our properties are as follows:

YEAR	PROPERTIES TO C
2022/23	189
2023/24	214
2024/25	61
2025/26	61
2026/27	59
2027/28	63
TOTAL	647

We aim to:

1. Get all our stock to EPC C by 2028
2. Build upon our success of securing £380k from the Social Housing Decarbonisation Fund and bid for more grant subsidy
3. Pilot the decarbonisation of a terraced property in Middlesbrough to inform our future approach



We developed our energy archetypes and modeling with the support of consultants IRT and the Retrofit Academy.





New Homes

Emissions and Energy:

We are required to build new homes which are future fit. To achieve this:

1

All new builds will produce **at least 31% less Carbon** to comply with Part L Building Regulations from 2022

2

All of our new builds will be to **EPC B as a minimum**



3

We will **explore models** for delivering zero carbon new build homes to achieve the Future Homes Standard.

4



Biodiversity:

We believe in promoting ecological sustainability and aim to:

Enhance green space and promote biodiversity on new build development schemes by 10%



New Homes

Resource management:

We believe natural resources need to be managed sustainably.
We aim to:

5



Fit homes with the most **water efficient products**, such as dual flush cisterns and aerated taps

Flood risks:

To mitigate the risk of floods, we aim to:

6



Carry out **flood risk assessments** on all new development



Customers

Having a warm and energy efficient home is important to our customers, particularly with increasing energy costs and the escalation in fuel poverty.



As part of the service provided to customers we aim to:

1. **Raise awareness about energy efficiency** issues and how to run their homes effectively

Engagement and support:

2. Engage with customers to develop our approaches to reducing carbon emissions from homes - we will actively listen to and learn from our customers to understand more.
3. Support our customers through the implementation of our investment work and minimise disruption and provide choice - we want our customers to help assist us in monitoring performance of our investment work.
4. Support customers experiencing fuel poverty by providing access to energy advice and financial support.

Resource management, we aim to:

5. Establish a pilot project for customers to access new and recycled furniture and decoration products.



Business Operations

Emissions:

We produce carbon through our business activities and have calculated our current carbon footprint.

We are working to manage down our greenhouse gas (GHG) emissions:

- **Scope 1** - direct emissions from owned or controlled sources,
- **Scope 2** - indirect emissions from the generation of purchased electricity, steam, heating and cooling consumed by the reporting company, and
- **Scope 3** - all other indirect emissions that occur in a company's value chain.

Our aims are to:

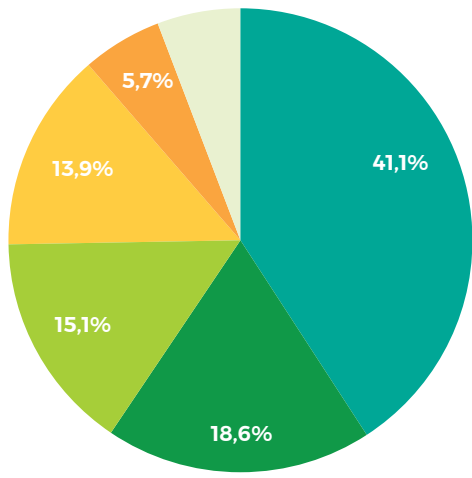
1. Explore options for reducing carbon footprint by **10%** over the next **five years** by:
 - Reviewing options for Endeavour House to become **carbon neutral** - installing **photovoltaic panels** will delivering a **50% reduction** in carbon emissions
2. Develop our carbon footprint monitoring tool to include carbon footprint of our **contractors' activities** (Scope 3)
3. Refresh our **green travel policy**

Northstar emitted 173,454 kgCO₂e for 2020/21 (across scope 1 and 2).

This can be presented as 173 tCO₂e with an intensity indicator of 1.87 tCO₂e per total full-time equivalent employee (FTE) and 8.51 tCO₂e per million GBP £.

When Scope 3 is added, this brings the total to 229 tCO₂e.

Emissions categories % chart (tCO₂e)



- Natural Gas Void Consumption
- Employee Commute
- National Grid Void Consumption
- Natural Gas Office Consumption
- Natural Grid Office Consumption





Business Operations

Time to Act:

Is our employee-led group, engaging our people, focusing on cross-organisation environmental initiatives.

Our aims are to:

1. Develop our approach to **recycling and reducing waste**
2. Develop our approach to **green procurement and purchasing:**
 - a. Encourage contractors to use **less harmful products**, e.g, paints which give off fewer Volatile Organic Compounds
 - b. Work with grounds maintenance contractors to ensure they do not use **herbicides**.

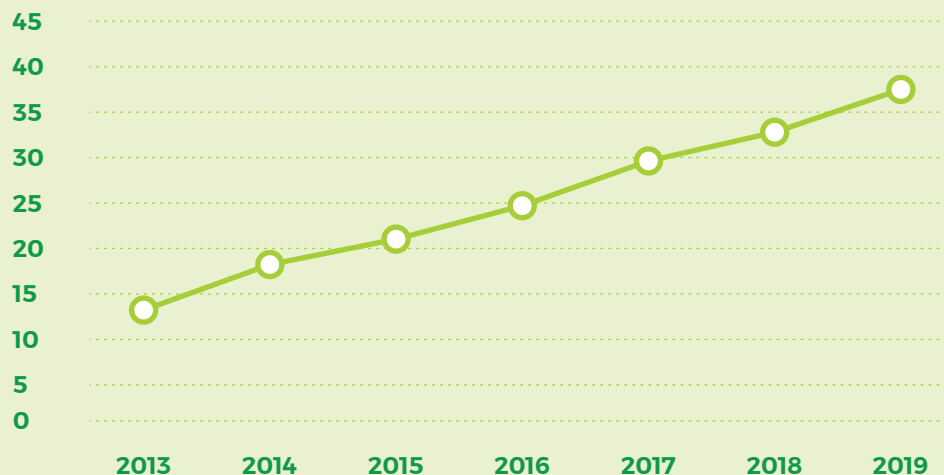


Our Planning



Opportunities

Cumulative Investment From The Capital Markets (2013-2019)



Source: Regulator of Social Housing, Quarterly Surveys

<http://www.gov.uk/government/collections/quarterly-survey-of-private-registered-providers>

ESG data is an important means for allowing **investors** to identify organisations that are well-positioned for the future and that have the **potential to contribute to positive impact**.

We will report our data in line with the relevant reporting **frameworks each year**.

A framework for our industry was launched in 2020, the Sustainability Reporting Standards for Social Housing.

Risks

Our strategy recognises the need to help deliver on the government's targets, improve the energy performance of our business and engage and support customers. This will require significant investment, grant subsidy and careful planning. We will need to monitor and review our strategy regularly and flex as policy, technology and learning emerge.

Roadmap to Zero Carbon by 2050

Policy

New Build Homes need to comply with Part L uplift to **31% carbon reduction** from 2022

Future Homes Standard: 75% carbon reduction / no new homes connected to **gas** from 2025

Clean Growth Strategy-all fuel poor existing homes **EPC to C** by 2030

Heat and Buildings Strategy - Ban installation of gas boilers from 2035

UK Zero Carbon Target

North Star's Response

2022

New developments to be **EPC rated B** from 2022

Develop North Stars **Future Homes Standard** in 2022

2025

2030

Existing homes **EPC to C** from 2022 to 2028 - taking a **fabric first approach**

2035

All North Star's property to **EPC C** by 2028

Install ASHP or other **clean heating sources** from 2035 onwards

2050



SHORT TERM



LONG TERM

Action Plan For 2022/23

Existing Stock



- Upgrade 189 properties to EPC C level
- Undertake a zero carbon pilot in a victorian terraced property

New Homes



- Develop our Future Home Standard

Customers



- Develop a communication plan for customer engagement and involvement
- Implement our furniture and decoration pilot

Business Operations



- Capture the carbon footprint of our contractors
- Progress the feasibility of installing energy efficiency measures for Endeavour House

