

The background features a stylized illustration of a landscape with rolling hills and several wind turbines. The hills are represented by simple, curved shapes in shades of teal. The wind turbines are depicted with three blades each, and their towers are thin vertical lines. The overall color palette is monochromatic, using various shades of teal and blue.

# **Home Energy Conservation Authority**

Annual Progress Report  
2021



**This year we celebrate the 50th anniversary of delivering housing services to the people of Northern Ireland through regenerating communities and improving housing standards. However, we now face the urgent challenge of climate change, recently described as a '*Code Red for Humanity*.' \***

It has been another challenging year for householders as the world learns to live with the enduring legacy of the COVID-19 pandemic. At a national level, the UK hosted the 26th Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) in Glasgow in November 2021, while locally our householders have been exposed to significant increases in energy prices.

In Northern Ireland, the focus of organisations in the energy supply and energy efficiency sector, including the Housing Executive, the Department for Communities, the Department for Economy, housing associations, the Utility Regulator, energy-focused social enterprises, energy suppliers, and other key partners is to identify measures that can be brought forward to help householders manage high and rising energy prices.

As we continue to live with COVID-19, the Housing Executive acknowledges the hard work across the housing and communities sector to provide support for householders, with particular emphasis on those who are most vulnerable.

During 2020/21, the Housing Executive invested nearly £20m on energy efficiency through a wide range of programmes, including enhancing thermal efficiency, window replacement and heating replacement schemes. This is a smaller programme than in previous years, but it reflects the national lockdown which inhibited the delivery of programmes.

Across the housing association sector, a further £5.5m was delivered through a range of energy efficiency measures, including the fitting of new heating systems, the installation of more effective insulation and the utilisation of renewable technologies. The NI Sustainable Energy Programme invested £7.9 million in energy efficiency and heating programmes across the private and public sectors.


An essential element in our collective success of delivering improvements in energy efficiency and reductions in fuel poverty is effective partnership and collaborative working.

I would, therefore, like to extend my thanks to the wide range of stakeholders from across central and local government, the energy supply sector, leading energy charities and social enterprises, who all support our HECA stakeholder panel, which has continued to meet regularly throughout the year.

Despite extended periods of lockdown, the Housing Executive has continued to deliver its Retrofit Programme in collaboration with the European Regional Development Fund. This programme will improve the thermal performance of nearly 2,000 houses in its duration. This important project is not only providing improved thermal comfort and reduced energy bills, but also provides key learning points for future delivery of retrofitting at scale.

*\*UN Secretary-General António Guterres describing the latest Intergovernmental Panel on Climate Change Sixth Assessment Report as 'a Code Red for humanity'.*



The background of the slide features a stylized illustration of a green landscape with rolling hills. Several wind turbines of varying sizes are depicted in white and light green, scattered across the terrain. The largest turbine is on the left, with its blades pointing upwards. Other smaller turbines are visible in the distance to the left and right.

The Housing Executive has continued a number of demonstration pilots. Through collaboration with local academia and the construction industry we have delivered various householder-focused solutions. One example is the EU funded project 'HANDIHEAT' which will finish in 2022. This project involved partnership with seven organisations across five European countries and it has enabled transnational learning. We are indebted to the support and guidance provided by the local Special EU Programme Board throughout this project.

The new Programme for Government (PfG) was released for consultation in January 2021. It outlined the ambition to ensure that people can “live and work sustainably” while protecting the environment, and sought to ensure that “Our economy is globally competitive, regionally balanced and carbon-neutral.”

The Housing Executive is committed to delivering green growth through the medium of investment via our maintenance contracts and supporting the DfC's Social Housing Development Programme. Annually these maintenance and new build programmes (including private finance) deliver over £500m of investment into the Northern Ireland economy, drawing on resources from the Dept. for Communities, Housing Executive and the housing association sector. The social and economic effects

of this investment are long-lasting, create jobs and will enable innovation to drive real change across the construction industry. Most importantly, it will reduce fuel poverty, improve our energy resilience and enhance our chances of addressing climate change.

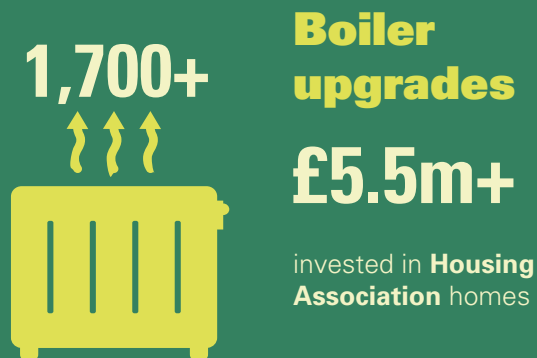
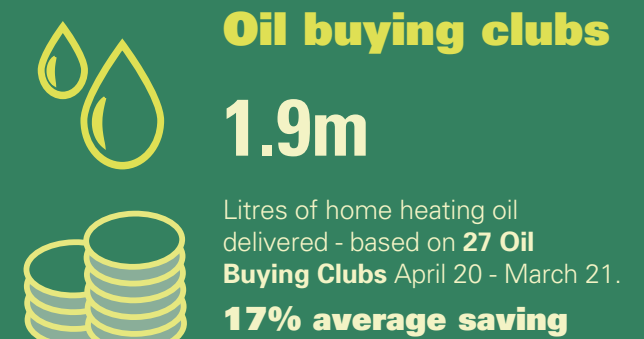
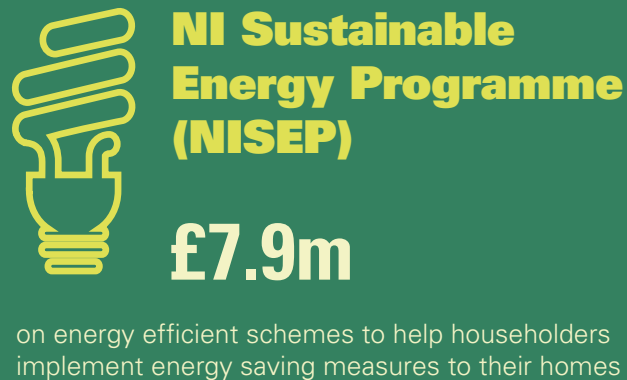
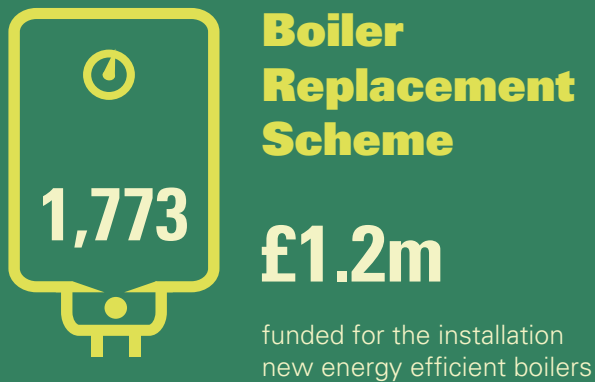
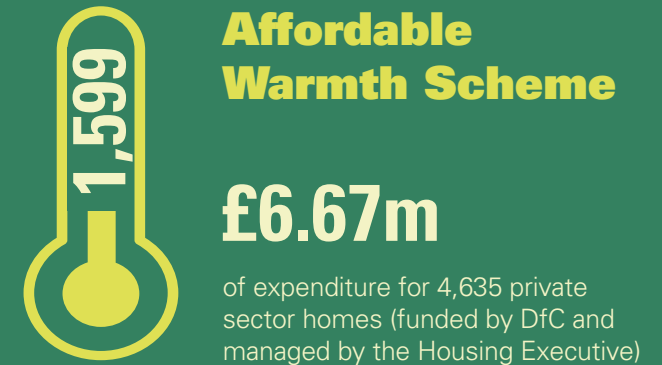
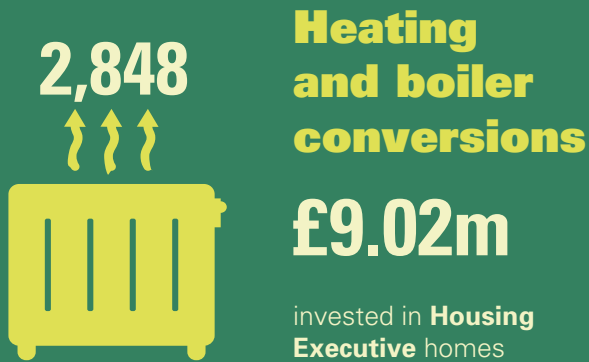
As housing professionals, we believe that by transforming the Northern Ireland housing stock we will enable the transformation of housing conditions, promote healthier households and deliver homes that are genuinely fit for the future.

We will continue to collaborate and partner across the housing sector to deliver sustainable communities and address climate and health inequalities.

I would like to thank everyone who has helped us, in achieving this mission. Your support and contributions are much valued.

A stylized, handwritten signature in white ink, appearing to read 'Peter Roberts', is positioned above the name and title.

Professor Peter Roberts  
Chair



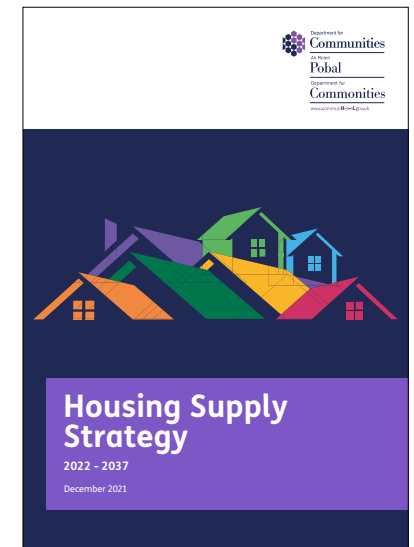
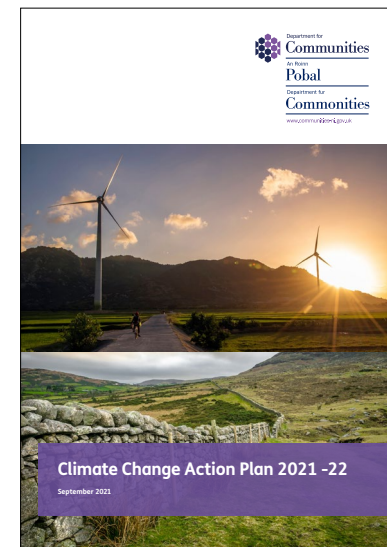
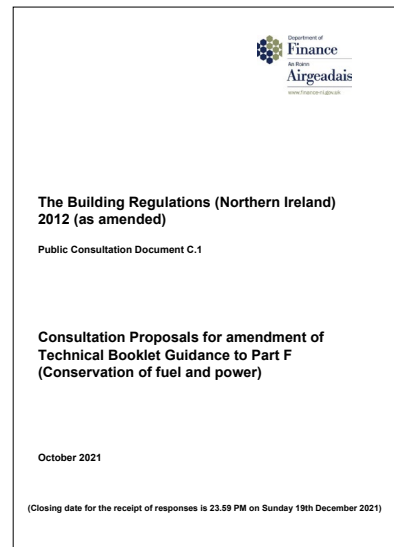
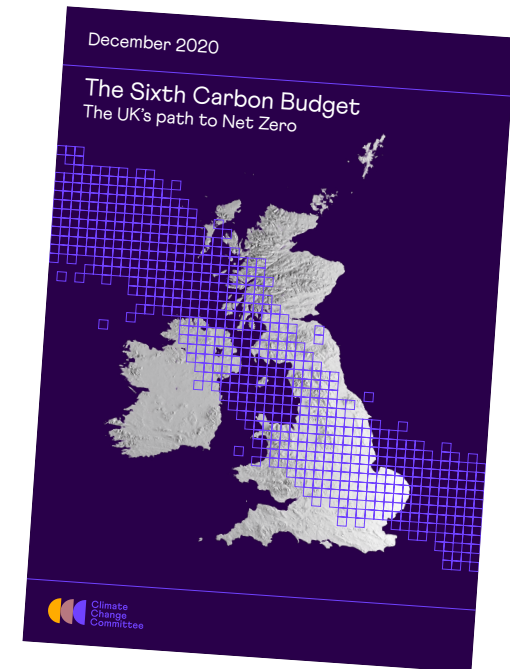
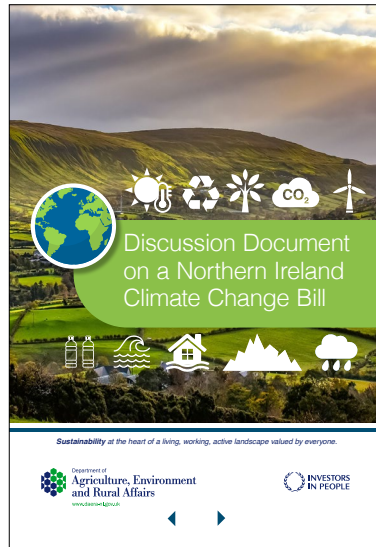
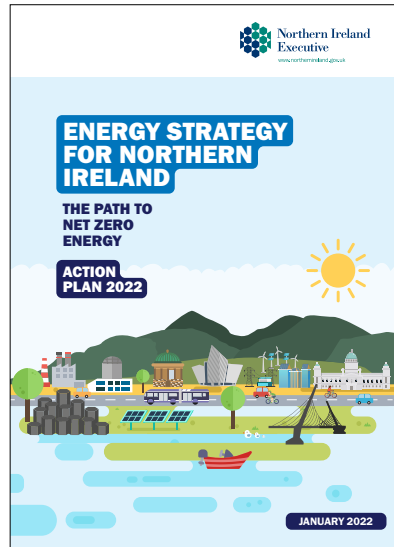
# 2020/21

## Investment



# Strategic Context

UK Climate Change Act 2008 (2050 Target Amendment) - Net Zero



# Strategic Context

Following the adoption of **New Decade New Approach**, which is a new shared strategic vision for Northern Ireland endorsed by all political parties in January 2020, the Northern Ireland Executive began to develop its Programme for Government.

Despite the challenges brought about by the pandemic, several policies have been launched that are relevant to this strategy. These include: **Department for Communities Climate Change Action Plan (2020-21)** which outlines the scale of the challenge of climate change and the actions the Department will take to reduce its impact across its diverse responsibilities. **Department for Communities Housing Supply Strategy** which sets out a long-term framework for the development of policy, interventions, and action plans to deliver the right homes in the right locations and to address housing stress. **Building (Prescribed Fees) (Amendment) Regulations (Northern Ireland) 2022** which set out the Department of Finance proposals for minimum standards for new build and retrofit standards with respect to carbon performance and energy conservation measures. **Draft Environment Strategy for Northern Ireland** developed by the Department of Agriculture, Environment and Rural Affairs (DAERA) will guide how we can preserve, protect and improve our environment for our children and our grandchildren.

**Energy Strategy for Northern Ireland** is the Department for Economy's pathway to 2030 to help achieve its long-term vision of net zero carbon and affordable energy for Northern Ireland. The Strategy will support the highest levels of energy efficiency, thus reducing the amount of energy we need whilst making sure the energy we do use comes from clean, renewable sources. **Two Climate Change Bills** are currently being reviewed by the Northern Ireland Assembly. Each with different targets, with Climate Change Bill (No. 1) proposing to reach Net Zero by 2045. The Climate Change Bill (No. 2) sets a target of an 82% reduction in emissions by 2050 - a figure aligned with what the Climate Change Committee says is possible for Northern Ireland under its 'Balanced Pathway' as set out in the 6th (UK) Carbon Budget. The Housing Executive supports the ambition to achieve net zero carbon emissions.

Within **Community Planning**, the Housing Executive as a statutory consultee in the **Local Development Plan (LDP)** process, advocates a holistic approach to developing energy policies, which seeks to provide better alignment of central and local government priorities in Northern Ireland. We believe that the Local Government Act 2014 provides key influence through local policies aimed at reducing energy consumption, improving connectivity, integrating land use and transport, and requiring all new buildings to be developed to high standards of energy efficiency.



# SUSTAINABLE DEVELOPMENT GOALS

7 AFFORDABLE AND  
CLEAN ENERGY



9 INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



11 SUSTAINABLE CITIES  
AND COMMUNITIES



12 RESPONSIBLE  
CONSUMPTION  
AND PRODUCTION



## Housing Executive Sustainable Development Strategy and Action Plan

In April 2021 the Chief Executive established a project team - to build on the work of the Chair's Environmental Working Group. This is a corporate/cross-divisional project managed by the Sustainable Development Unit in tandem with the Quality Improvement Unit.

Its first task was to scope out the key elements of a future strategy and action plan in order to gauge the Board's appetite for a future Corporate Sustainable Development Strategy and whether our proposed direction of travel is comprehensive and appropriate.

Currently the Housing Executive is preparing a Sustainable Development Strategy and Action Plan built around the Corporate Strategy's four themes of People, Places, Property and Planet and focuses on the key impact areas of the built environment, sustainable communities and transport as well as the need for education and empowerment, and providing improved health and wellbeing through sustainable living.

It includes deliverable work streams across the whole organisation as the energy transition impacts our whole organisation, our communities

and our supply chains. An integrated holistic approach is the best technique to achieve true sustainable living.

Monitoring progress of the work streams will focus on carbon reduction and environmental management and will include an annual sustainability audit. The organisation already undertakes an environmental management audit with third party certification and sustainability benchmarking exercises; however a more integrated approach will be needed to review progress of this draft action plan.

Subject to the Executive Team and Board's approval this Sustainable Development Strategy and Action Plan will be complete by spring 2022. This strategy will be guided by the United Nations Sustainable Development Goals which have a shared goal to reduce poverty, protect our planet and bring peace and prosperity to all people. The 17 Sustainable Development Goals recognise that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability.

# Sustainable Development Strategy and Action Plan (2022-2027)

## Delivering Sustainable Homes and Communities

For Housing Executive, Tenants, Communities, Supply Chains and Stakeholders

PEOPLE			PROPERTY	PLACES
Education and Empowerment Leading to Behaviour Change	Health Wellbeing and Sustainable Living	Sustainable Transport Solutions	Built Environment	Sustainable Communities
<ol style="list-style-type: none"> <li>1. Our staff, tenants and supply chain will be aware of the impact of everyday activities on the climate and will be encouraged to take action to become more environmentally responsible as individuals and organisations.</li> <li>2. The technical skills shortage in the construction industry will be addressed with greater capability and competency in the industry to facilitate sustainable construction and retrofit works.</li> <li>3. Equal gender representation, participation and leadership across all business areas in the Housing Executive.</li> </ol>	<ol style="list-style-type: none"> <li>1. More sustainable dietary choices, including lower meat consumption, improve health outcomes.</li> <li>2. More green space on our estate.</li> </ol>	<ol style="list-style-type: none"> <li>1. More active travel by providing support for walking, cycling and e-bikes.</li> <li>2. People are encouraged back onto public transport, where there has been a shift to car travel.</li> <li>3. Increased ownership of EV's and a phase out of petrol and diesel vehicles.</li> <li>4. Business mileage is significantly reduced and flying is considered the exception rather than the norm.</li> </ol>	<ol style="list-style-type: none"> <li>1. Energy efficiency is a major infrastructure priority which has led to large-scale energy efficiency retrofitting and reduced energy demand.</li> <li>2. A transition to low and zero carbon heating systems in new build and retrofit.</li> <li>3. New builds, if needed, are built to be low-carbon, energy and water efficient, and climate resilient.</li> <li>4. Education and empowerment of householders to understand new technology and systems to encourage environmentally responsible behaviours.</li> </ol>	<ol style="list-style-type: none"> <li>1. Increased social, economic, and environmental wellbeing of districts and the people who live there through Community Planning.</li> <li>2. More social value being delivered through the social enterprise sector.</li> <li>3. Local communities working together to secure low-cost energy.</li> </ol>
Governance: Carbon Monitoring, Environmental Management, Environmental Benchmarking, Sustainability Audit, Green Growth and Sustainability Action				
Leadership and Collaboration through External Funding Opportunities for Zero Carbon Projects				
PLANET				



*Improving domestic  
energy efficiency*

## **Home energy**



*Reducing  
fuel poverty*

## **Fuel poverty**



*Living sustainably,  
saving the  
environment*

## **Environment**



*To have a  
more equal society*

## **Equality**



# **How to save energy**

**Measureable outcomes - baseline, actions and progress**



## **Advice**

*Improved access to advice,  
improved connectivity with  
residential customers*



## **Reduce**

*Implement energy  
efficient schemes  
within social and  
private housing sectors*



## **Protect**

*Increase electricity  
consumption from  
renewable resources,  
research and install  
innovative measures*



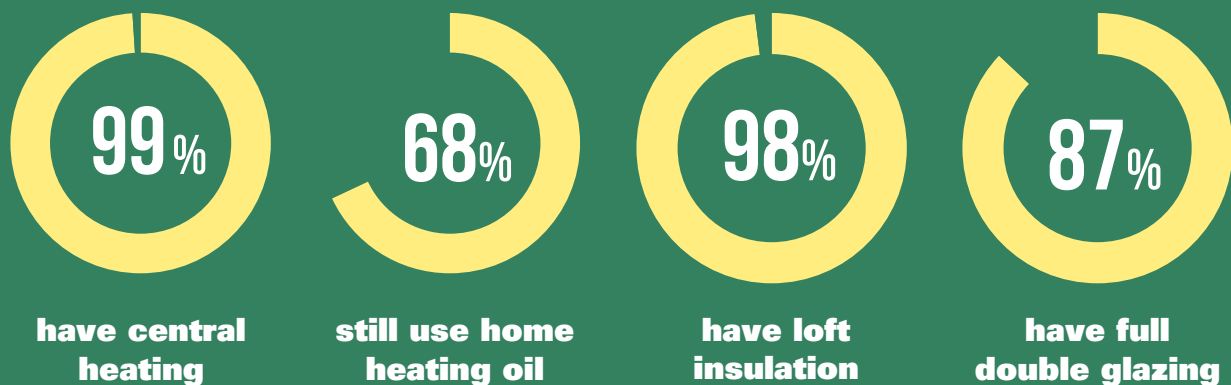
## **Measure**

*Energy mix,  
reduce oil  
dependency,  
gas to the west*



# **Improving domestic energy efficiency**

## Measuring progress across all dwellings



## SAP ratings

The Northern Ireland House Condition Survey (HCS), is the primary data source for assessing progress of energy efficiency across the NI residential sector.

As noted, the Standard Assessment Procedure (SAP) is the Government's standard method of rating the energy efficiency of a dwelling.

The overall SAP rating for Northern Ireland in 2016 was 65.83, using the latest SAP model.<sup>1</sup>

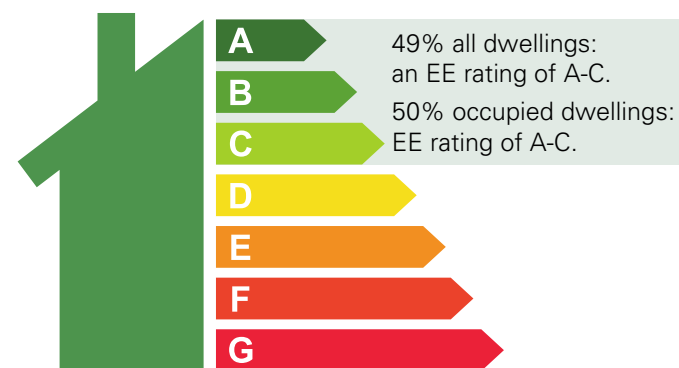
Social housing had the highest SAP Mean rating (72.63) and vacant dwellings had the lowest SAP rating (51.78).

During the 5-year period from 2011 to 2016 there was total investment of £300m in the provision of energy efficiency measures, which contributed significantly to achieving higher SAP ratings.<sup>2</sup>

1. The SAP model was modified between 2011 and 2016 in order to improve the accuracy of energy efficiency ratings.

2. 2016 Northern Ireland Housing Executive HCS.

## The Energy Efficiency Rating (EER) uses an A-G banding system



### EE rating of A-C

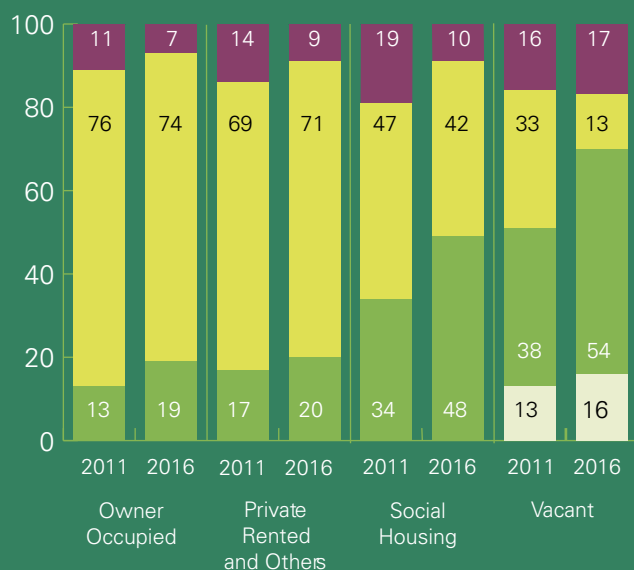
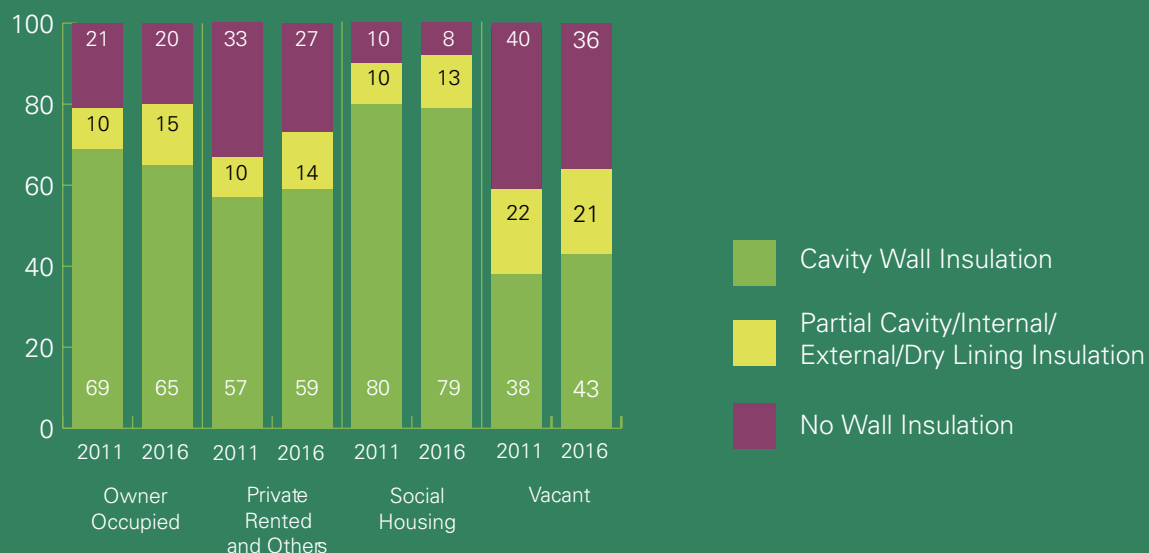


## Home Insulation

The proportion of housing stock with full cavity wall insulation is 65%, based on the 2016 HCS; this figure has remained static since the findings of 2011 HCS.

As the 2016 HCS noted, 'this was expected, as there hasn't been the same level of investment in cavity wall insulation as there has been in loft insulation, double glazing or the replacement of solid fuel heating.'

As part of the 2016 HCS, an examination of the extent of cavity wall insulation (by tenure), provided the following results.



## Domestic Heating

At present, Northern Ireland has the highest level of dependency on high-carbon fossil-fuel across the UK - with 68% of households dependent upon home heating oil coupled with the significant hike in energy costs for winter 2021 and the risk to the vulnerable, the Housing Executive is not only focused on the immediate energy costs but the sustainable solutions which will insulate householders from the volatility of the world energy market. The Housing Executive is currently delivering demonstration pilots (discussed later in the report) and developing low carbon heating and energy efficiency programmes to provide medium to long term solutions which can influence Northern Ireland housing in its role as the Strategic Housing Authority and NI's largest housing landlord.

The Housing Executive indicative planning assumption of a future Decarbonised Heating Pathway could be based on:

New Build housing (Heat Pumps in the medium/long term and potentially Green Hydrogen in the medium/long term on the gas network)

Off the Gas Grid: Medium term transition to hybrid heat pumps/oil boiler to stand alone heat pumps, dependent on improved retrofitting.

On the Gas Grid: Housing on the natural gas grid to transition to use of gas boilers which can be future proofed for bio methane in the short term and potentially green hydrogen in the long term, dependent on economic assessment. Electrification of heating is also an option for retrofit on the gas grid. Regardless of the heating type, improved retrofitting should promote a fabric first approach.

Low-carbon heat networks: The Housing Executive supports the development of Low-carbon heat networks, particularly in urban and new build scenarios.

It is often said there are 'no silver bullets...' and therefore we believe 'a rich tapestry of options to deliver heat' is a sensible approach.

For the Housing Executive role as landlord, future improvements is based on a revitalised funding model and sustainable rents.



# CO<sub>2</sub>

## Energy Consumption and Carbon Dioxide (CO<sub>2</sub>) Emissions within Northern Ireland's Housing Stock

The Housing Executive commissioned the Building Research Establishment (BRE), to interrogate the 2016 HCS data to produce an updated assessment of progress against the original HECA baseline statistics identified in 1996.<sup>1</sup>

### Key findings

In the 2016 HCS, the improvement in energy efficiency, since 1996, was 29.1% from the occupied pre-1996 housing stock. This was measured, in the 2011 HCS, as a 22.5% improvement in energy efficiency and the latest data demonstrates continued progress in this key measurement.<sup>2</sup>

### Methodology

The analysis provides the CO<sub>2</sub> emissions from dwellings in Northern Ireland from the following activities:

- Water heating
- Lights and appliance use
- Cooking

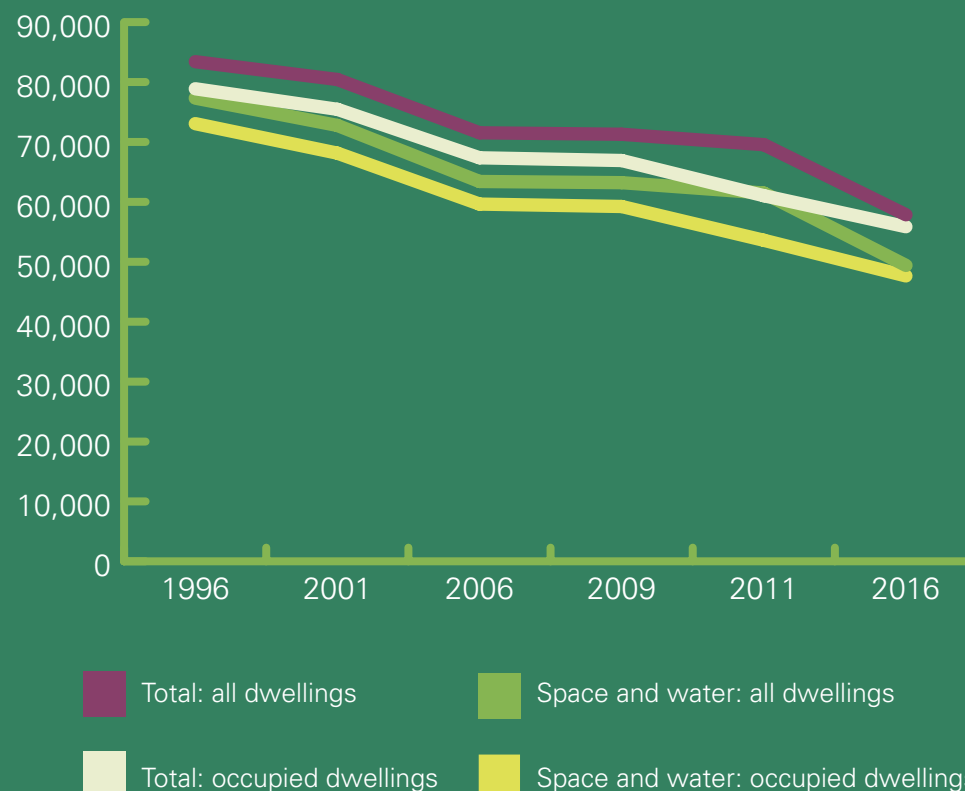
## Energy Consumption Results

The consumption and emissions results are also presented for space and water heating only, thereby excluding lights, appliance use and cooking. This approach can be useful when analysing the effect of improvements to the building fabric and heating systems.

It is clear that the general trend since 1996 has been towards a reduction in energy consumption. This is consistent with improvements to dwellings' fabric energy efficiency (in particular cavity wall insulation) and heating system improvements (condensing central heating systems replacing older, less efficient systems). The decrease in energy consumption over the latest five year period, 2011 to 2016, for the occupied stock only, is similar to the previous 5-year period (2006 to 2011).

The total CO<sub>2</sub> emissions for all dwelling reduced by 30% from the 1996 baseline (based on 2016 data)<sup>3</sup>.

*Energy consumption in pre-1996 dwellings (Terajoules/year), 1996-2016*



1. BRE is the world's leading building science centres, and provides training, publications, advice and digital tools for the construction industry.

2. Based on measurement of modelled standardised consumption by BRE.

3. <https://www.nihe.gov.uk/Documents/Research/HCS-2016-Additional-Reports/Carbon-dioxide-emissions-NI-housing-2016.aspx>

## Carbon Dioxide Emissions Results

The emissions are constructed by taking the consumption and then applying associated emissions factors (from the SAP specification) for each fuel being used in the dwelling.<sup>1</sup>

The graph opposite shows the total CO<sub>2</sub> emissions for all dwellings reduced by 30% from the 1996 baseline (based on 2016 data).<sup>2</sup>

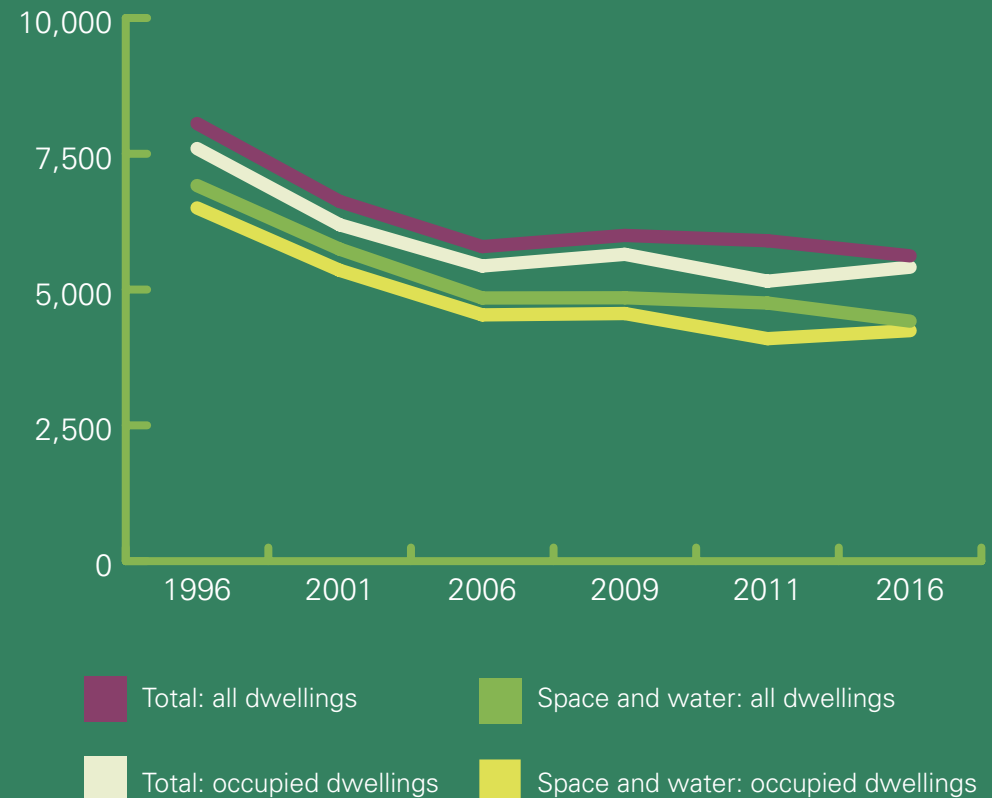
This will be dominated by the space and water heating fuel in use in each dwelling, typically oil, gas or electricity. Emissions from lights and appliance use are calculated using the carbon dioxide factor for electricity.

The results presented here use different emissions factors for different years to reflect the fact that the carbon mix of electricity generation has changed over the years as has the carbon intensity of other fuels, and the understanding of emissions associated with each fuel.

CO<sub>2</sub> emissions exhibit a similar pattern of reduction to energy consumption apart from in 2009<sup>3</sup>.

**CO<sub>2</sub> emissions**  
**↓ 30% reduction**  
**(1996-2016)**

Carbon dioxide emissions from pre-1996 dwellings (Kilotonnes/year), 1996-2016



1. The CO<sub>2</sub> emissions are taken from the pre-1996 dwelling stock.

2. In 2009, the modelling switched to using the SAP 2009 carbon emissions factors which incorporated factors for electricity which are significantly higher than in the SAP 2005 specification.

3. In 2009, the modelling switched to using the SAP 2009 carbon emissions factors which incorporated factors for electricity which are significantly higher than in the SAP 2005 specification.

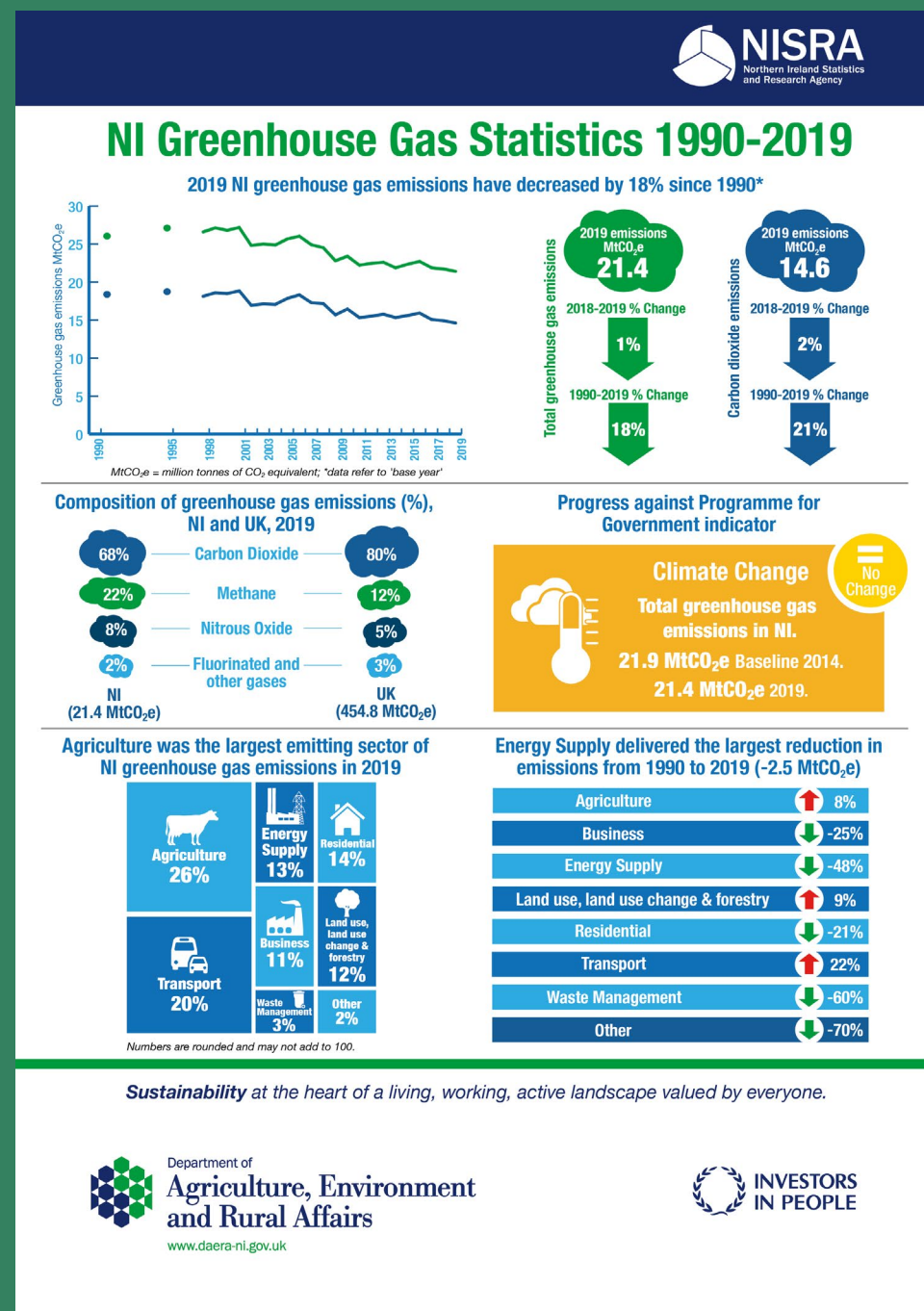
# DAERA - Northern Ireland greenhouse gas inventory 1990-2019 statistical bulletin

This annual statistical bulletin provides headline figures on greenhouse gas emissions for Northern Ireland both by source sector and end-user for the years 1990 to 2019.

In 2019, Northern Ireland's greenhouse gas emissions were estimated to be 21.4 million tonnes of carbon dioxide equivalent (Figure 1). This was a decrease of 1% compared with 2018. The longer term trend showed a decrease of 18% compared with the base year<sup>1</sup>.

- The largest sectors in terms of emissions in 2019 were agriculture (26%), transport (20%) and residential (14%). Most sectors showed a decreasing trend since the base year.
- The largest decreases, in terms of tonnes of carbon dioxide equivalent, were in the energy supply, waste management and residential sectors. These were driven by the energy sector fuel switching from coal to natural gas, a move replicated within the residential sector and the introduction of methane capture and oxidation systems in landfill management.
- Northern Ireland accounted for 4.7% of UK greenhouse gas emissions in 2019. In total, the UK reduced emissions by 44% between the base year and 2019. Scotland and England reduced emissions by 45% and 44% respectively. Wales and Northern Ireland reduced emissions by 31% and 18% respectively.
- A major revision of the measurement of UK emissions has been included in this year's greenhouse gas inventory. The inclusion of the recommendations of the 'wetlands supplement' has resulted in an upward shift in the overall emissions recorded from 1990 - 2019 from that previously reported.

1. There is a variance in data from the carbon reduction in the House Condition Survey 2016 and the latest DAERA statistics, 2019, which can be attributed to different timelines and the use of different data sets. Both reports indicate a step change in approach is required to achieve net zero by 2050, as over the previous 30 years NI has reduced less than 30% carbon.



# Cost of carbon savings in Northern Ireland's housing stock - Retrofitting energy efficiency measures to achieve Energy Efficiency Rating Bands C and B: modelled using data from the NIHCS 2016

This report was commissioned by the Housing Executive to estimate the potential capital cost, change in household energy bills and carbon savings of retrofitting all Northern Ireland's housing stock to improved levels of thermal efficiency in the medium and long term, and to inform the debate around decarbonisation of the NI housing sector. This report is summarised in this section.

Energy efficiency is central to all energy transition pathways to achieve net zero, as reduced energy demand decreases the need for energy network upgrades and ensures energy bills are affordable.

DfE recently published a report in the area, 'Research into the Future of Energy Efficiency Policy in Northern Ireland', which noted:

*"Our modelling of future policies indicates that a dramatic change in policy extent and funding levels is required for NI to put building energy performance in line with the UK's net zero carbon emissions commitment. The modelling indicates that a peak of retrofit measures for up to 30,000 buildings per annum is the minimum necessary to align with the UK's 2030 energy efficiency target. In order to align with 2050 net zero commitments, it is estimated that policies would need to drive an annual peak of retrofits for over 50,000 buildings within the next decade. By comparison, current energy efficiency programmes in NI deliver measures for approximately 16,500 buildings per year, indicating that a doubling or trebling is needed."*

<https://www.nihe.gov.uk/Documents/Research/Single-Downloads/Cost-of-carbon-savings-in-NI-housing>



## Summary of Key Findings

**Medium Term:** The total cost to improve the approximately 390,000 eligible dwellings in Northern Ireland to at least a SAP band C was £2.4 billion, with a mean cost of £6,200 per dwelling.

The overall impact of improving dwellings in Northern Ireland to Band C would be to provide mean energy cost savings of £500/year, mean CO<sub>2</sub> savings of 3.2 tonnes/year and a mean SAP rating increase of 14.

**Long Term:** The total cost to improve the approximately 586,000 eligible dwellings in Northern Ireland to at least a SAP band B was £9.2 billion, with a mean cost of £15,600 per dwelling.

The overall impact of improving dwellings in Northern Ireland to Band B would be to provide mean energy cost savings of £700/year, mean CO<sub>2</sub> savings of 3.7 tonnes/year and a mean SAP rating increase of 18.

Generally, traditional improvement measures, which focus on installing fabric insulation and upgrading heating systems, were sufficient to improve dwellings to a SAP band C. To reach the target SAP band B threshold however, further measures were required in the majority of cases. Specifically, the installation of photovoltaic (PV) panels was essential in improving a significant proportion of the stock to a SAP band B.

# NI Energy Advice Service

One year on from the launch of our Northern Ireland Energy Advice Service, over 5,000 householders from all tenures have accessed energy efficiency advice.

The delivery of this service is an important element in achieving the Department for Communities (DfC) and the Housing Executive's key objective of tackling fuel poverty.

As the Home Energy Conservation Authority for Northern Ireland, the Housing Executive promotes energy efficiency awareness, offering the only 'One-Stop Shop' for local energy advice. The Service is managed by Housing Executive, and funded by Department for Communities

- Customers have been empowered by relevant up-to-date energy advice.
- Energy Advisors provide high quality, accurate written and telephone advice, which engages customers and is actionable. This advice helps them to save money on energy bills and reduce their carbon footprint.
- Customers can 'Get in Touch' now to find the most appropriate help for their needs. The Service sign-posting to relevant available grants.
- Customers can complete the eForm at [nihe.gov.uk](http://nihe.gov.uk) (search for NI Energy Advice). Email [nienergyadvice@nihe.gov.uk](mailto:nienergyadvice@nihe.gov.uk). Call FREE 0800 111 4455

## Belfast Telegraph Home and Interiors Edition, April 2021

The Magazine had reach to over 151,000 readers across the province. From our readership, exactly 124,000 readers currently own their own home. This is the perfect target audience for our organisation.



Siobhan McCauley, the Housing Executive's Director of Regional Services, explains why the organisation now funds and operates the Service:

*"As the Home Energy Conservation Authority for Northern Ireland we have a statutory duty to promote energy efficiency and advice to all householders. With the refreshed Northern Ireland Energy Advice Service we want to ensure all householders are able to have easy accessible free impartial advice that will help people save money on their energy bills and reduce their carbon footprint."*

*The Housing Executive provides a wide range of housing support to both public and private sector householders, and from April 2020 we have been successfully delivering the Northern Ireland Energy Advice Service. This service is managed and operated by the Housing Executive and funded by Department for Communities (DfC)"*

**Statistics for customer enquiries to the NI Energy Advice Service regarding home heating, insulation, renewables for heating and home energy.**

**Contact us on:  
0800 11 44 55**



**5,644**

**customer enquiries facilitated in the first 18 months of operation**  
(April 2020 - Oct 2021)



**3,166**

**(56%) customers reported boiler over 15 years** *slowing down, stopping or broken*



**3,891**

**customers with oil as their fuel source**



**1,231**

**customers with gas as their fuel source**



**4,558**

**customers reported high utility bills**



# Schools' Energy Efficiency Awareness Programme (SEEAP)

The Housing Executive launched a refreshed NI Energy Advice Service in April 2020. A further component of this service involves the previously outsourced Schools' Energy Efficiency Awareness Programme (SEEAP).

SEEAP encourages pupils' awareness of energy use, and under 'The World Around Us', an Area of Learning in the Primary School curriculum, seeks to encourage action through informative presentations, activities and learning resources.

We will align our learning objectives to support the future success of Science, Technology, Engineering and Mathematics (STEM) across the education sector.

The Housing Executive forged a collaborative working relationship with Keep Northern Ireland Beautiful, Eco-schools NI in 2020.

This relationship has led to a NI-wide environmental awareness programme network covering 11 major environmental topics. These topics are supported by DAERA and partnering with Translink; Mars Wrigley; Granville Park; Trocadero; our 11 local Councils, and a host of associated sponsors and support organisations.

The Housing Executive, through grant-aid to Keep NI Beautiful, will sponsor the 'Energy' topic for all NI Schools as part of Eco-Schools Programme.

Both the Housing Executive's SEEAP and Eco-Schools reflect the aspirations of the Sustainable Development Goals (SDG) and,

in turn, are aligned to the ambitions regarding energy efficiency outlined in the new Programme for Government (launched in January 2021).

During the past year, our collective attention has been waylaid by pandemic related challenges. This new school year has had fewer challenges. Our Competition will launch again in the New Year.

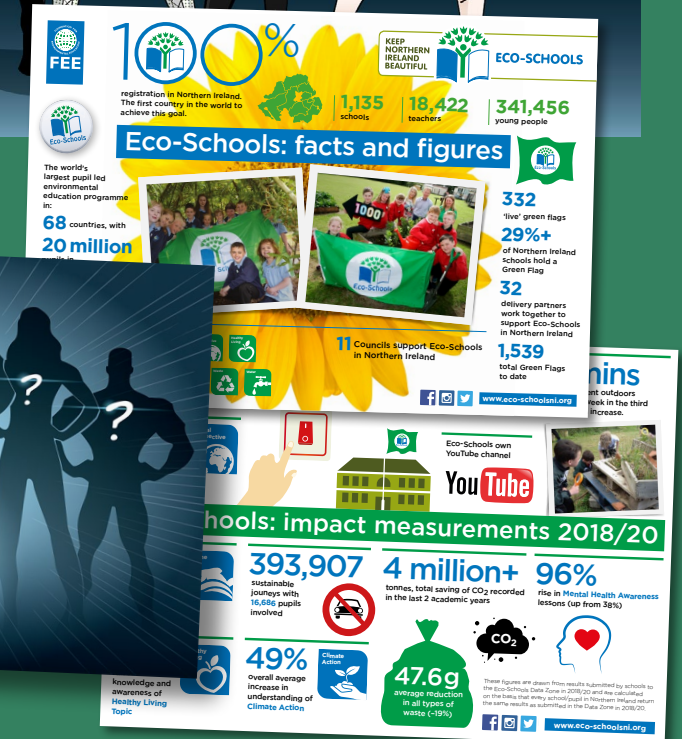
We have seen a renewed focus from schools on tackling our climate. Increasing attention to energy efficiency awareness is a great place to start.

SEEAP, in collaboration with Eco-schools NI will endeavour to make environmental awareness and action - an intrinsic and enjoyable part of every child's learning experience.

The SEEAP Energy Awareness Presentation was translated to accommodate 29 Irish-medium schools, plus an additional 10 Irish/English schools.

Looking for a fun and engaging way to supplement instruction on energy and the environment, we are developing and extending our Comic Strip Energy Hero presentation, to deliver to all classrooms in 2021/22.

To encourage involvement in the new Programme, schoolchildren were invited to update our presentation, to fill in the 'graphic gaps', to design their own energy Superhero!



## Northern Ireland Energy Advice Launch offered trees in place of traditional merchandise

Hundreds of trees have been planted in Belfast by the Housing Executive to mark the official launch of its NI Energy Advice Service.

As the Home Energy Conservation Authority (HECA) for Northern Ireland, the Housing Executive promotes energy efficiency awareness and believes households should get the right energy advice.

A live, interactive broadcast marked this launch, which was streamed to an invited audience of stakeholders, community groups and guest speaker, and presented by Professor Roberts, Chair of the Housing Executive.

200 trees have been planted in the Forthriver Road Woodland, Belfast thanks to help from Belfast Grounds Manager, Malachy Brennan. Birch, Oak, Willow and Cherry trees which are all native to Northern Ireland were purchased by the Housing Executive through The Conservation Volunteers (TCV).

From growing trees from hand-picked seeds to reforesting Northern Ireland, the TCV Tree Nursery has been growing native provenance trees for over 30 years with the help of volunteers from all over Northern Ireland and beyond.

An additional 200 trees will also be planted in the North West

Robert Clements, Sustainable Development Manager for the Housing Executive, welcomed the recent tree planting which he says will have a positive impact on carbon levels.

He said: "With planting 400 trees across two locations in Northern Ireland, we will offset over 66 tonnes of carbon by 2050.

"This is the equivalent carbon cost of sending 66 people on a return flight to New York or driving over 300,000 miles in a small car. The Housing Executive is also currently looking at other tree planting opportunities."

This month (April) marks a year since the launch of the NI Energy Advice Service, which provides free impartial advice, helping people save money on their energy bills, while reducing their carbon footprint.

As part of the promotional launch of the service, which was postponed due to Covid-19, the Housing Executive pledged to plant 400 trees in its woodlands, instead of offering commercial, plastic merchandise.

Over 3,000 home and business customers have been offered help through the NI Energy Advice Service since it launched last year.

Customers are provided with current up-to-date energy advice and grant signposting through our dedicated One-Stop Shop Energy Advice Service. The service is managed by the Housing Executive, and funded through the Department for Communities.

We are working with city partners to plant one million native trees across Belfast by 2035.

This project, which launched in National Tree Week, is one of our major programmes to support climate adaptation across the city and it will make a substantial contribution to the Department of Agriculture, Environment and Rural Affairs' Northern Ireland-wide Forest of our Future initiative.



*Neville and Russell from The Conservation Volunteers (TCV) plant trees at Forthriver Road Woodland, Belfast on behalf of the Housing Executive to mark the launch of its NI Energy Advice Service.*

By planting one million trees, we are aiming to:

- reduce carbon
- improve air quality
- reduce flooding
- increase urban cooling
- support and enhance biodiversity
- improve physical and mental health and wellbeing

Belfast One Million Trees was inspired by an original idea from the Belfast Metropolitan Residents Group and it is a collaboration between public, private and voluntary sector partners.

We have currently planted 40,000 trees in Belfast and our city regions.





*Action for Warm Homes*

Northern Ireland

## National Energy Action (NEA)

NEA is a charity working to end fuel poverty across the UK. Supported by Housing Executive funding, it also provides essential energy efficiency training and awareness outreach in Northern Ireland to householders and community groups. It raises public awareness through an extensive range of activities, including accredited training courses which cover fuel poverty, fuel debt, affordable warmth and delivering practical energy advice.

## Fuel Poverty and Health Certified Training

In response to the pandemic, NEA continue to utilise technology as a means of delivering training programmes in respect of Fuel Poverty and Health awareness. This training examines the causes and impacts of fuel poverty with a focus on health issues and solutions. It aims to help delegates identify those likely to be at risk from fuel poverty and to signpost them towards appropriate assistance.

Webinars are delivered live by expert tutors to small groups to ensure a good level of interaction and support for learners.

The webinars are designed for anyone wanting to learn more about fuel poverty, its causes and links with physical and mental wellbeing.

## Typical webinar Objectives and Content

Objectives:

- Explain causes of fuel poverty
- Identify health impacts of fuel poverty
- Explain causes of and remedies for condensation dampness
- Identify some of the assistance available to those at risk from fuel poverty

Content:

- Definition of fuel poverty in Northern Ireland and the causes of fuel poverty
- How to identify those at risk of fuel poverty using risk factors and triggers
- The health impacts of fuel poverty and damp homes
- Heat loss within the home
- The causes of condensation dampness/ mould and remedial actions that can be taken
- Assistance and sources of advice available to those struggling to heat their home adequately - including Grants and Schemes available in Northern Ireland.

We're supporting Fuel Poverty Awareness Day because everyone needs a warm and safe home this winter



## Fuel Poverty Awareness Day 3 December 2021

During 2021, the Housing Executive continued to support our HECA partner National Energy Action, by using our social media platforms to promote the vital message about Fuel Poverty Awareness.

Staff from the Housing Executive's Sustainable Development Unit took part in the online video campaign to pledge the Housing Executive's support for Fuel Poverty Awareness Day 2021.

"A Key objective for the Housing Executive is to reduce Fuel Poverty in line with the DfC Fuel Poverty Strategy. Reducing Fuel Poverty through improved innovation and pilot schemes is vital to the Housing Executive to better inform them on Energy Efficiency and low carbon heating".





# HECA: Energy Efficiency Promotional Events

## Energy Saving Week 22-26 November 2021

Energy Saving Week returned to Northern Ireland for its 21st year on 22 November 2021. Delivered by Energy Saving Trust, an independent and trusted organisation working to tackle the climate emergency, the week helped householders across the country to reduce their energy bills and their carbon footprint.

Energy Saving Week is sponsored by The Housing Executive (Home Energy Conservation Authority) and also run in collaboration with Bryson Energy, Choice Housing, Clanmil Housing, Radius Housing, Consumer Council NI, Firmus energy, National Energy Action NI, NIFHA, Phoenix Natural Gas, Power NI, SGN Natural Gas, SSE Airtricity.

Energy Saving Trust provided a range of resources, challenges and toolkits to help encourage householders to take action. Householders were able to take part in a specially designed quiz, where they were also be able to pick up some useful energy saving tips and three prize winners managed to win retail vouchers.

Primary schools across Northern Ireland were also encouraged to take part in an energy saving challenge which tasked pupils and families to make some simple changes to help save energy at home, such as reducing water use and turning TVs and games consoles off standby.

The schools will receive a certificate from Energy Saving Trust to show how much carbon the school has saved overall. Two prizes were up for grabs this year. The first-place prize is for a tree planting activity sponsored by Phoenix Natural Gas and the second-place prize is a trip to W5 in Belfast, sponsored by SSE Airtricity.



## Fuel Poverty Webinar 21 October and 1 December 2021

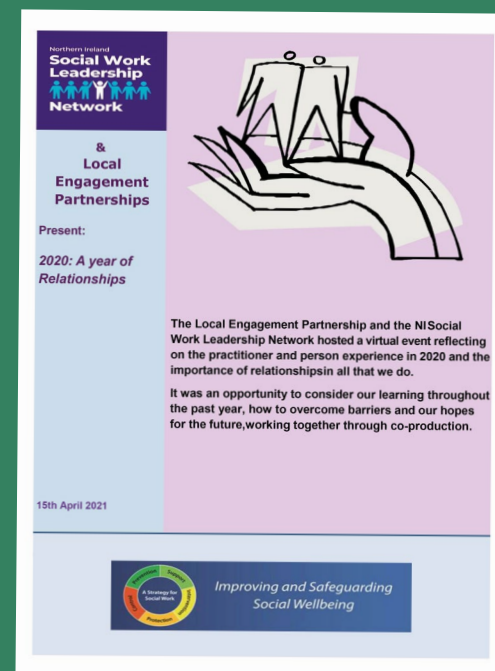
Webinar delivered for Health and Social Care Board and through the Social Work Strategy support the NI Social Work Leadership Network and the Local Engagement Partnerships (LEPs).

The Local Engagement Partnerships are a coming together of people who receive a social work service and social workers to work together to co-produce better services.

The leadership Network members are leaders from across the social work system from every organisation that employs social workers - Health and Social Care Trusts with Education Authority, Probation, NI Guardian Ad Litem Agency, Patient Client Council, Youth Justice Agency, Prison Service and the voluntary sector including Barnardo's, Action for Children with others.

The webinar includes speakers from the Housing Executive, NEA and the Consumer Council discussing the following topics:

- NI Energy Advice
- Oil Buying Clubs
- The causes of fuel poverty and assistance available to those at risk
- Causes and remedies for condensation and dampness
- Switching energy provider

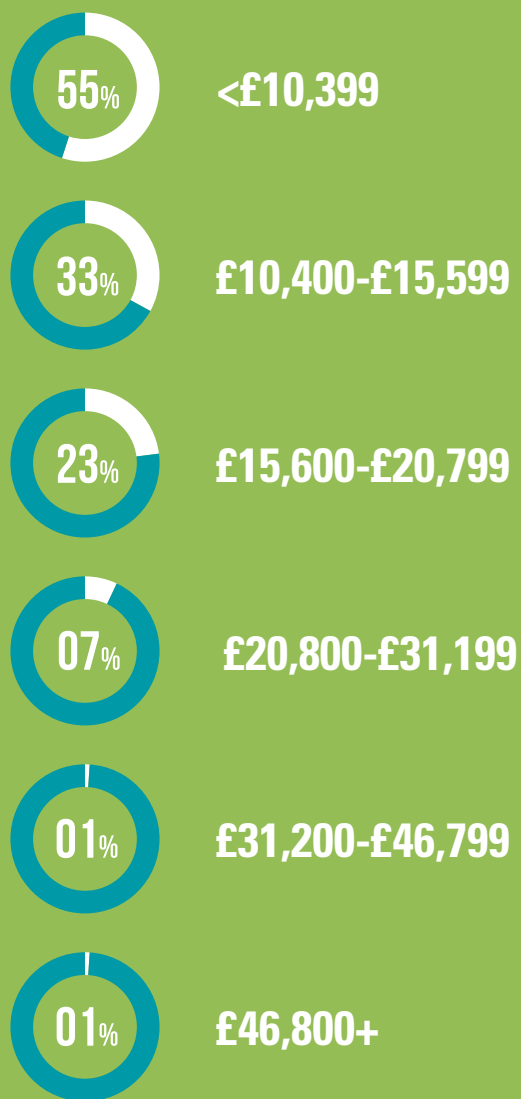


The background is a solid light green color. On the left side, there is a large, stylized letter 'B' in a slightly darker shade of green. To the right of the 'B', there are several overlapping, rounded green shapes of varying sizes and shades, creating a layered effect. The text 'Reducing fuel poverty' is written in a bold, white, sans-serif font, positioned in the upper right area of the image.

# **Reducing fuel poverty**

## % In Fuel Poverty

(10% definition) against gross income



Source: HCS 2016

## Fuel Poverty Data

The percentage of the Northern Ireland population living in fuel poverty rose by from 22% to 24% over the period 2016 to 2019, according to modelled estimates published by the Housing Executive in February.\*

The change in fuel prices and household income values between 2016 and 2019 led to an increase in the number of households estimated to be in fuel poverty in 2019, from 160,000 households in 2016 to 179,000 households in 2019. The main contributing factor to the increase in fuel poverty was the rise in fuel prices. Although fuel oil prices decreased by 3% between 2016 and 2019, the average price of electricity and gas, increased by 18% and 29% respectively. On average, applying the fuel price changes alone from 2016 to 2019 increased the overall mean household fuel expenditure in Northern Ireland from £1,530 to £1,650 in 2019, the equivalent of an 8% increase. The increase in the average household income (1%) was not enough to offset the increase in household energy costs.

The modelling research found that without the ongoing installation of improvement measures such as cavity wall

insulation, loft insulation and heating system upgrades the estimated number of fuel poor households would be at 194,000 (26% of households).

A household is regarded as being in fuel poverty if they are unable to keep their home warm at a reasonable cost. In Northern Ireland, this is measured as any household that would have to spend more than 10% of their income on heating their home.

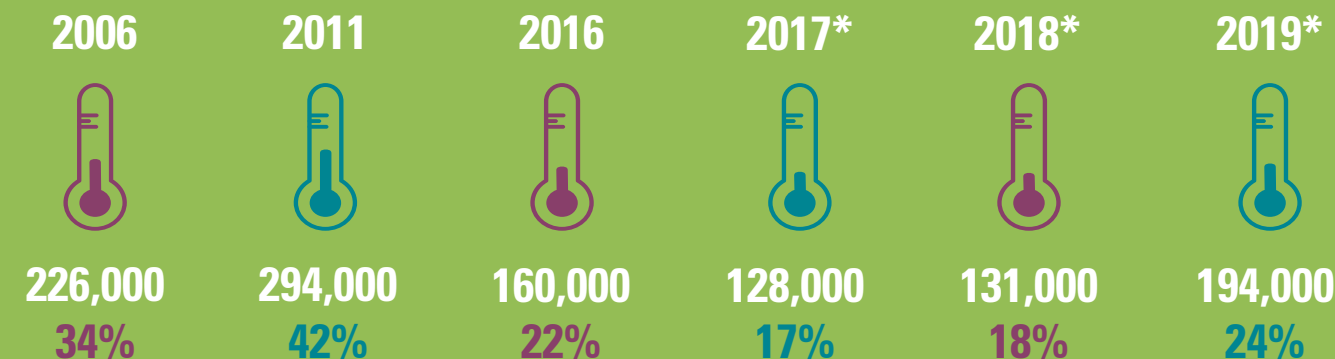
A key driver to deliver energy efficiency within refurbishment of housing in Northern Ireland is the need to help reduce fuel poverty.

### Fuel Poverty Ready Reckoner

The Housing Executive recognises the need to gather fuel poverty data on a more frequent basis, rather than at the HCS 5-year cycle and, in 2018 published a Ready Reckoner to estimate the levels of fuel poverty based on the previous HCS (2016). This FP reckoner is available to the public - in raw form.

This provides fuel poverty figures based on variances in fuel prices, which is the most changeable factor of fuel poverty between the cycles of HCS.\*

## Households in Fuel Poverty (10% definition)\* Estimated figures from 2016 HCS model



\*<https://www.nihe.gov.uk/Documents/Research/HCS-2016-Additional-Reports/Estimates-of-fuel-poverty-in-Northern-Ireland-in-2.aspx>



*Minister Hargey visits homes receiving energy efficiency improvements*

## ERDF Funded Project

The Housing Executive has embarked on a multi-million pound investment programme to improve the energy performance of almost 2,700 of its homes across Northern Ireland.

The Energy Efficiency in Social Housing project has been made possible by funding of c. €23 million secured from the European Regional Development Fund (ERDF) through its Investment for Growth and Jobs Programme for Northern Ireland 2014-2020. A further €22 million of funding is being invested by the Housing Executive.

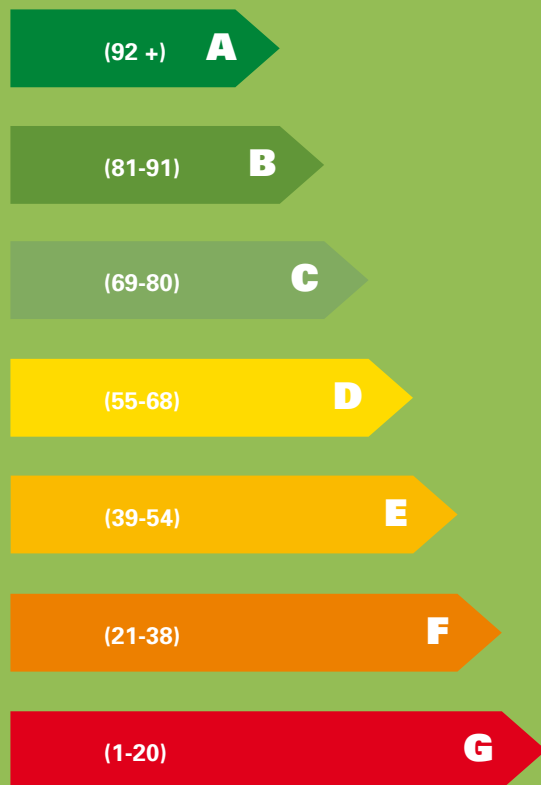
This six year €45 million programme is expected to be completed by September 2023. A number of schemes have already been completed or are currently onsite across South Antrim, Causeway, Magherafelt and Omagh. The schemes include addressing the level of thermal efficiency in aluminium bungalows through the provision of new external wall cladding, new double glazing and improved insulation measures.

The works commenced on site on the 5th April 2021 on the two phases of the ERDF funded project to undertake External Wall Insulation to No Fines non-traditional housing stock and Cavity Wall Insulation to the Easi Form variant which has a cavity. A further third phase of this programme consisting of approximately 600 dwellings is due to go out to tender in late December 2021/early January 2022.

Whilst the project is progressing well, the Covid restrictions had an impact on the overall numbers, so it is now expected that approximately 1900 homes will be completed by the deadline of September 2023.







## Grants for Owners and Private Rented Tenants

### Affordable Warmth Scheme

The Affordable Warmth Scheme was introduced in September 2014. It replaced the Department for Communities' (DfC) previous Programme, the Warm Homes Scheme. The replacement Scheme is also funded by the DfC and is the Domestic Energy Efficiency Improvement Programme for vulnerable low income households. The Affordable Warmth Scheme is a central element in the NI Executive's Fuel Poverty Strategy.

The Housing Executive's Private Sector Improvement Services (PSIS) unit is active in the promotion of energy efficiency in its role as administrator of the Affordable Warmth Scheme, on behalf of DfC.

Affordable Warmth is designed to help reduce the effects of fuel poverty in the private sector, offering a range of measures for households with a gross annual income of less than £23,000. The Housing Executive works with Department for Communities, local Councils and the Ulster University, to ensure that assistance is targeted in areas where fuel poverty is prevalent. In 2021, The Affordable Warmth Scheme facilitated improvements in 1,599 homes at a cost of approximately £6.67m.

This in turn involved the installation of 2,574 measures in these properties, as shown below:



**1,773**

boiler installations



**£1.2m**

expenditure via the Boiler Replacement Scheme

### Boiler Replacement Scheme

The Boiler Replacement Scheme is for owner occupiers whose annual total gross income is less than £40,000 and is designed to provide assistance to help with the cost of replacing outdated oil or gas boilers. In order to be eligible for replacement, the current boilers must be at least 15 years old. A grant of up to £1,000 is available to assist with the cost of installing new boilers and controls.

Householders may also wish to convert from oil to gas or to a wood pellet boiler.

In 2020/21, a total of 1,773 boilers were installed at a cost of £1.2m



**504**

loft insulation



**1,308**

heating



**548**

windows



**168**

cavity wall insulation



**31**

draught-proofing measures

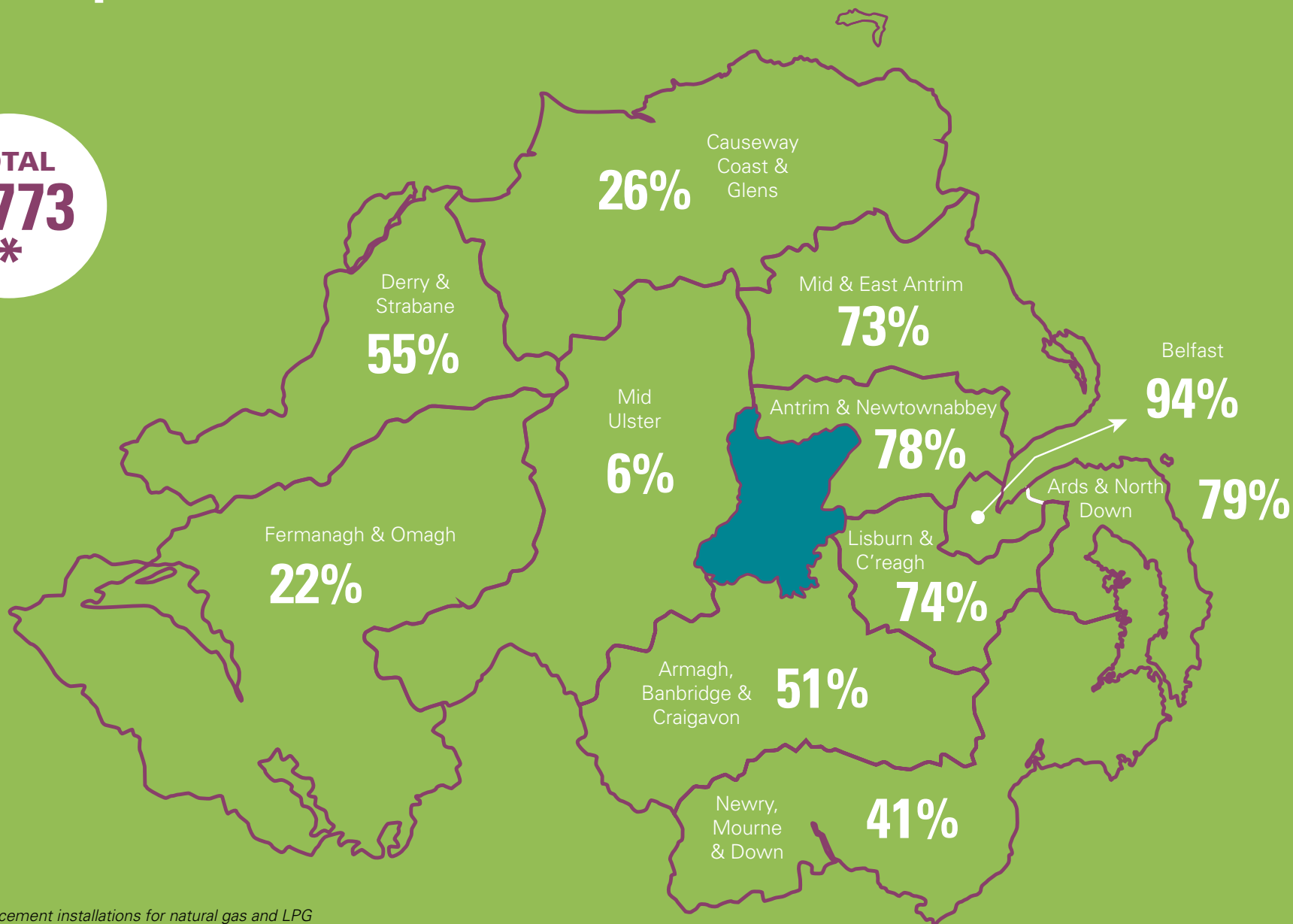


**15**

solid wall insulations

## Proportion of gas installations by Council Area within Boiler Replacement Scheme 2020/21

**TOTAL**  
**1,773**  
\*



\*Figure reflects boiler replacement installations for natural gas and LPG



## Energy Efficiency refurbishment across the Housing Association movement

During 2020/21 the Housing Association movement invested over £5.5m installing the following energy efficiency measures:



**1,700+**

high efficiency boilers



**102**

loft insulation and draught proofing measures



## NI Sustainable Energy Programme (NISEP)

The NI Sustainable Energy Programme (NISEP) is a customer funded Programme, which provides energy efficiency measures to home owners and private tenants. The NISEP, which runs on a year by year financial basis, has been successful in targeting homes with no heating or inefficient heating systems in addition to installing

energy saving measures in homes including energy-efficient boilers, heating controls, loft insulation and cavity wall insulation.

NISEP funded £7.99 million of means-tested investment in energy efficiency schemes in 2020/21. Eligibility is based on income bands depending on your circumstances. This funding was given to both private and social housing sectors to provide energy efficiency measures.

The Utility Regulator has announced that the current Programme is now open until March 2022. The NISEP funds come from a levy on electricity bills paid by both Domestic and Commercial customers throughout Northern Ireland.

The Energy Saving Trust NI is the Programme Administrator of NISEP on behalf of Northern Ireland's Utility Regulator, and schemes are delivered by a range of organisations across NI.

## Domestic measures installed via NISEP during 2020/21



**1,688**

loft insulation measures



**1,334**

cavity wall insulation

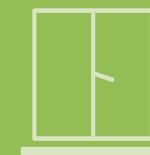


**1,205**

heating systems

## Housing Executive Energy Efficiency measures within Planned Maintenance Works

In 2020/21, the Housing Executive invested approximately £11.32 million in energy efficiency measures within its planned maintenance programme across its own housing stock



**£2.3m on 992**

double glazing installations  
(providing A-rated double glazed units)



**£9.02m on 2,848**

heating conversions (energy efficient boilers) which includes zoning where practical and 270mm loft insulation

## Cavity Wall Insulation Research Project

In 2019 the Housing Executive published a research report on Cavity Wall Insulation in Northern Ireland. The research was undertaken by the British Board of Agrément (BBA). The findings for the Housing Executive's stock were based on a sample survey of 825 properties. BBA found that 63% of these properties had cavity wall insulation installations that were

non-compliant with modern industry standards because there were found to be voids or debris in the cavity.

Following consultation on the draft Cavity Wall Insulation Action Plan, for its stock in response to BBA's findings and recommendations, the Housing Executive has now finalised the CWI Action Plan which will soon be published.



# Housing Executive Demonstration Pathfinder Pilots

## Rural-Led Energy Transition (RULET)

RULET is an initiative within the SPIRE 2 EU funded project aimed at reducing or eliminating the risk of low-income households being left behind in the transition to clean, smart, integrated energy systems. Domestic electrical heating systems, when combined with energy storage and smart controls and operated at scale, have the potential to create significant system value by managing high levels of wind penetration. Northern Ireland has world-leading levels of wind energy; however, when wind generation exceeds electricity demand, the output from wind turbines is dispatched down - 'turned off'. In 2020, 15% of available wind with a retail value of over £80m, was dispatched down.

Led by Ulster University and the Northern Ireland Housing Executive, RULET builds on the work of the HANDIHEAT project (which tested low carbon heating and improved thermal performance). RULET is focused on making the full benefits of smart energy technology available to the most vulnerable households in the western counties of Northern Ireland, a wind energy hotspot. Other partners include Utility Regulator, NIE Networks, Energia/PowerNI, manufacturers Grant & Sunamp, and smart heating control developer Climote.

The project installed the equipment in November and December 2021 to test the deployment of:

- a) Improved energy efficiency measures
- b) Low carbon heating systems focused on electrification
- c) Tariff change, initially focused on time of use tariffs
- d) Education and empowerment of householders to enhance behaviour change

Going forward the Housing Executive will utilise the key learning points from the HANDIHEAT and RULET pilots as well as evidence from other pilots which the Housing Executive support (GIRONA)<sup>1</sup> to scope out a low carbon programme of 200+ houses over 2022/2023 to provide evidence for a future decarbonised heating policy.

<sup>1</sup>GIRONA [www.gironenergy.com](http://www.gironenergy.com)

## Social Housing Development Programme

The Social Housing Development Programme delivered 1,626 completed homes in 2020/21 (against a target of 1,500). 67% of these completions (1,088) were newly constructed units.

New build homes are constructed by housing associations in compliance with current Building Regulations, which produce an average SAP rating of approximately 83 (Band B).

This level of SAP rating is a contributing factor for the higher mean SAP of 72.63 for social housing in comparison to the mean SAP of 65.11 across all tenures of occupied dwellings.



## Energy Efficiency Multiplier

The DfC Housing Association Guide offers an optional Energy Efficiency Multiplier which supports sustainable and energy efficient design beyond the existing statutory minimum SAP ratings for new build homes delivered via the Social Housing Development Programme. This offers benefits both for householders and the environment by providing fabric first solutions and minimising the need for additional mechanical fittings within newly constructed dwellings.

In Sept 2021 the DfC in collaboration with the Housing Executive reviewed the funding available for the 'Energy Efficiency Multiplier' as part of the Housing Association Guide. This change will increase the level of funding available for any housing associations who wish to deliver new social housing to the higher Energy Efficiency standards (i.e. SAP A and min. FEES as above).

This is viewed by DfC and the Housing Executive as vital way of mitigating the effects of climate change, reducing fuel poverty and improving health, and should support housing associations to deliver more sustainable and energy efficient designs beyond the statutory minimum going forward. The Housing Executive is also aware that a small number of housing associations are investigating small-scale pilot proposals for delivering new social homes on a 'Net Zero Energy Buildings' basis.



## Solar Photovoltaic (PV) schemes within the Housing Executive stock

In summer 2016 the Housing Executive completed a solar PV scheme in partnership with Saliis Ltd, to install solar panels into approximately 1,000 Housing Executive homes using private finance based on the “rent a roof” model. The scheme was the first solar PV project for residential properties in Northern Ireland. To evaluate the performance of the contract, the Housing Executive required research to be conducted to measure delivery against both primary and secondary objectives.

### Primary objectives:

- To evaluate the 2016 Solar PV Panels pilot to assess the impact of Solar PV panels in relation to energy efficiency and ultimately whether or not they were effective in tackling fuel poverty and providing tenants with a way of saving money;
- To estimate the household savings on annual energy bills; and
- To investigate the benefits of using Solar PV Panels as a means of renewable electricity and the influence this may have on any future new build/adaptation schemes that the Housing Executive may wish to carry out.

### Secondary objectives:

- Ascertain the impacts of the Solar PV panels scheme and the overall effects it had on tenants' way of life; and
- Explore both wider economic benefits (i.e. savings to public purse) and non-monetary benefits resulting from the use of Solar PV Panels in future social housing design for new build schemes.

### Conclusions

- 65% said that the Housing Executive had kept them fairly or very well informed about the installation process
- 97% of respondents were fairly or very satisfied with the installation process
- 76% of all respondents reported using large appliances during daylight hours rather than during the evening or at night which reflects positively on levels of understanding of how to benefit from the panels
- Over two thirds (68%) of respondents felt that they are saving money on their electricity bill as a result of the solar panels.



**Average estimated  
annual bill saving**

**£134.95**

**maximum saving being  
£362.05 per year**

***The scheme has been effective in targeting householders within the profile more likely to be impacted by fuel poverty as identified by the House Condition Survey (HCS) 2016***



### **Oil Clubs Open to New Membership**

This Competition proved highly successful - with 80+ New Members in the first week.

**oilbuyingclubs@nihe.gov.uk**

**Call FREE 0800 111 4455**

## **NI Oil Buying Service**

With the significant hike in energy costs for winter 2021 and the risk to the vulnerable, we have overhauled the Oil Buying Club - changing processes with both members and suppliers. We have reopened our Membership after a number of years, with the key objective of tackling fuel poverty.

The delivery of this service is now an integrated part of our NI Energy Advice Service. Oil Buying Club members receive updates regarding grant availability, energy efficiency advice and an offer to call our NI Energy Advice to go over their home energy efficiency and how to save on costs and carbon.

Typical savings Sept/Oct - £20 (15%) on 200ls from Suppliers and just under 15% on the Consumer Council listed average prices for 300ls.

### **Local Press Cover**

In early November 2021, we reached out to rural areas, those with the most oil use, with an advert for the refreshed Oil Buying Service, a call to action to 10 of the most prevalent local papers within these Oil Buying areas.

### **Winter 2021 FREE Draw to WIN 200 litres**

We offered an opportunity to current and New Oil Club members with a Free Draw through November and December for each of the six local areas (spanning 27 Clubs). Each member that orders through their oil Club (November or December), will be entered to win 200 litres of oil.

We have reopened for New Membership. The recent competition and press advertisement have brought orders from long-term members that have not ordered for years, plus almost 100 new members. Now Everyone can SAVE on Each Order!

Members can now order through a dedicated oil buying inbox or call our Freephone number with any queries about Oil Buying Clubs or for Free impartial Energy Advice.

The background is a solid teal color. On the left side, there is a large, stylized, lowercase letter 'a' in a slightly darker shade of teal. In the bottom right corner, there is a graphic of a sun with rays and a cloud, also in the same darker teal shade. The text is positioned in the upper right area, overlapping the 'a' and the sun/cloud graphic.

**Living  
sustainably -  
protecting the  
environment**

## Housing Executive Landlord Energy Efficiency Strategy

The purpose of the Housing Executive's Energy Efficiency Strategy for its existing homes is to minimise tenants' heating bills, fuel poverty, and carbon emissions, and to assist in meeting the UK government's target of 'Net Zero' emissions by 2050.

The cost of preparing homes for low emissions is considerable, so the Housing Executive is investigating how to prioritise investments in insulation measures and how to gather better data on the energy status of different homes.

We are likely to have to rely on more renewable electricity to provide heat for homes, and are investigating which types of electric heat pumps can provide an affordable heating service for homes.

The cost of a bigger capacity local electricity system will end up on consumer bills, so we will investigate how to minimise the maximum demand that Housing Executive homes put on the system; e.g. by insulating homes, by using more efficient heat pumps, by using existing boilers in cold weather only, or by accepting offers of connections to any new district heating systems.

We will make final choices about new heating or solar energy systems when NI government energy policies are clearer, but our policy is generally 'Fabric First'.





## Award Winning JOURNEY TO RETROFIT - Pilot Scheme, Newry

The Housing Executive has published a report of its retrofit pilot project in Newry that was designed to improve five houses to different energy efficiency standards. The scheme was completed in 2018, followed by two years of post-occupancy evaluation. The purpose of the pilot was to understand the benefits and challenges of implementing various retrofit measures, which would then inform the strategy for future retrofit schemes on a much larger scale. The report describes the process from its very early, ambitious beginnings, to the detailed and target-driven approach finally delivered.

The five houses in Newry were chosen for their similarities in terms of location, orientation, size and layout, making them suitable for comparative purposes to demonstrate the impact of applying different packages of measures. The rendered blockwork cavity walls are also very typical of Housing Executive stock, meaning that the workable solutions developed through this scheme can be replicated easily.

The measures implemented include external wall insulation, loft insulation, gas boilers, heating controls, new windows and doors, improved construction detailing to reduce thermal bridges at critical locations, an airtightness strategy, and innovative ventilation systems.

This is the Housing Executive's most ambitious retrofit project to date, delivered using in-house expertise and collaboration with industry leaders. The report details the lessons learned and recommendations to be applied to future retrofit projects with the aim of informing others who may be considering, or are currently undertaking similar retrofit work. The knowledge gained through the Newry pilot scheme has provided a solid base upon which the Housing Executive will build its retrofit strategy and respond to the challenges of the decade ahead.

In January 2022 this scheme received the inaugural Net Zero Carbon Award at the National Housing Maintenance Forum Awards, in recognition of the innovation work which the Housing Executive are currently developing to provide improved thermal comfort and low carbon heating to achieve Net Zero.



After: Loanda Crescent



Before: Loanda Crescent



## EU funded HANDIHEAT Project

**Now in its final year of implementation, the HANDIHEAT Project continues to contribute to improvements in energy efficiency by demonstrating the effectiveness of renewable energy solutions in isolated rural communities across northern Europe.**

The Housing Executive fulfils dual roles in the context of the Project, acting as the Lead Partner, as well as developing and assessing the benefits of a demonstration pilot involving the installation of renewable technology in a small number of Housing Executive owned homes in Lisnaskea, Co Fermanagh. As Lead Partner for the Project, the Housing Executive is co-ordinating the activities of six partner organisations across 5 European countries within the Northern Periphery and Arctic (NPA) region.

The partners are the Pure Energy Centre (Shetland); Austurbrú (Iceland); ARC Healthy Living Centre (N Ireland); Clár Irish Centre for Housing (Republic of Ireland); Luonnonvarakeskus (LUKE) Natural Resources Institute (Finland) and Karelia University of Applied Sciences (also Finland). Ulster University and PowerOn are also involved in the Project as associate partners.

The collective focus of the partners is to identify practical renewable energy solutions; develop best practice models; devise renewable energy toolkits; and produce training and road maps for rural communities affected by fuel poverty due to heavy reliance upon imported fossil fuels for the production of energy.

Over the past year the HANDIHEAT has adapted and evolved due to the COVID-19 pandemic, which presented both challenges and opportunities for the project to progress. Due to government guidelines regarding social distancing, access to Housing Executive tenant's properties was restricted, resulting in delays to the installation of energy efficiency measures in the Lisnaskea pilot site. The works have all since been completed by April 2021, with collected data being monitored by Ulster University.

The national lockdown and travel bans meant physical meetings between HANDIHEAT partners were not possible, however using online meeting software proved to be not only more efficient but has saved on Carbon emissions across all NPA partner organisations.

Over the past 12 months the HANDIHEAT project held a series of online webinars based on Fuel Poverty, Renewable Energy and Community Energy, to inform, educate and empower rural and vulnerable householders. The webinars featured a variety of guest speakers and stakeholders from the NI/ ROI energy sectors, SME's and local public/private sector organisations including the Consumer Council NI, Action Renewables, SEAI, and NEA NI. In place of merchandise, partners from Arc Healthy Living Centre in Enniskillen provided HANDIHEAT energy saving 'goodie bags' to those affected by fuel poverty and as thank you to the local audience who attended the webinars.

These webinars can be found at the HANDIHEAT YouTube channel

**Understanding Fuel Poverty and the implications for Health and Wellbeing**  
**Community Energy: Empowering Rural Communities to be Energy Efficient and Sustainable**



## Demonstration Pilot site

The Northern Ireland demonstration which is being led by the Housing Executive aims to explore the potential benefits of hybrid electricity generation and storage solutions for six Housing Executive owned properties in Lisnaskea, Co Fermanagh.

This pilot will evaluate a combination of hybrid installations in these properties, including oil/electric boilers; air source heat pumps; solar photovoltaic panels; and battery storage systems as well as energy efficient insulation measures. In the strategic context of the Clean Growth Strategy, there is an imperative to find alternative energy sources to counteract the current high level of fossil fuel consumption, particularly in rural settlements that do not have access to alternative sources of low carbon heating.

The Fermanagh pilot is also being supported by associate partners, Electric Storage Company, which specialises in energy storage solutions (storage batteries) and staff from the Ulster University, who will analyse and monitor the effectiveness of the hybrid systems over a 24 month period. Data from the pilot will be analysed to assess the suitability of low carbon and hybrid options as alternatives to oil fired boilers, which are still the predominant fuel source currently being installed in Northern Ireland.





## HANDIHEAT Final Conference

In September 2021 HANDIHEAT held its final conference in Belfast as a means of drawing the project to its formal conclusion. This was a virtual event given the COVID-19 restrictions, with EU partners presenting online from their respective NPA regions. The conference was attended by Housing Executive Chief Executive Grainia Long and Chair Professor Peter Roberts, Mark O'Donnell (DfC) with the keynote speech provided by Sir Professor Michael Marmot (Professor of Epidemiology, University College London) who addressed the important topics of health inequality and climate change.

The final conference can be viewed on the HANDIHEAT YouTube channel: [HANDIHEAT Final Conference: Energy Transition in Rural Areas](#)

HANDIHEAT was granted a three month project extension due to the disruption of the pandemic, and as a result the project will officially end in December 2021, with final reports being submitted in March 2022.



## HEATER PROJECT

The outputs of HANDIHEAT will continue as part of the EU NPA Cluster Call Project known as HEATER (Heat and Energy Education and Empowerment for Rural Areas) of which the Housing Executive is again Lead Partner. HEATER is a cluster of projects with synergies across HANDIHEAT, SMARTRenew, TechSolns, SENDoc and eLightHouse.

The partnership with WiSAR Lab, Letterkenny Institute of Technology (SMARTRenew project), Ulster University (SENDoc/TechSolns), Oulu University of Applied Sciences (eLighthouse) and HANDIHEAT, aims to collaborate and cluster the transnational outputs from previous projects to educate and empower local communities to effect positive behavioural change and inform decision makers to influence policy across climate change mitigation and adaptation and sustaining communities. A Joint Cluster launch event took place in October 2021 alongside fellow NPA Cluster Project GREENER, led by ERNACT.

The launch can be viewed via YouTube: [NPA Interreg GREENER & HEATER Joint Cluster Launch](#)

[HEATER \(interreg-npa.eu\)](https://interreg-npa.eu)

Most recently, HANDIHEAT was featured during the COP26 coverage by BBC NI Agriculture and Environment Correspondent Louise Cullen, highlighting the success of the project and how the energy efficiency measures have improved the thermal comfort and reduced energy bills for Housing Executive tenants.



## The focus on Energy Efficiency activity undertaken by local Councils

Derry City & Strabane District Council (DCSDC) and Donegal County Council (DCC) both recognise the need to transition towards a smart, low carbon economy which can deliver sustainable prosperity for individuals, communities, businesses and the local environment within the North West Region. To fulfil this goal, both councils have collaborated, to define a clear and structured North West Regional Energy Strategy as one combined region.

This strategy supports the increasing global consensus arising from the Intergovernmental Panel on Climate Change's (IPCC) 2018 report that identifies the urgent need to accelerate decarbonisation objectives and has been aligned with "Net Zero" emissions targets. Importantly, the UK Parliamentary Climate Change Committee (CCC) in its recent report recommends that local authorities must be proactive and pursue strategies that are designed to eliminate carbon emissions within their regions given the specific nature of their individual energy system.

This report therefore aims to provide a strategic rationale and direction for the North West region to achieve its vision for a Net Zero Emissions Energy sector by 2045. The Roadmap contained herein proposes a strategy that can deliver real reductions in annual carbon emissions, whilst encouraging the growth of a low carbon economy, improving the security of supply and minimising the environmental impact of all future activities.

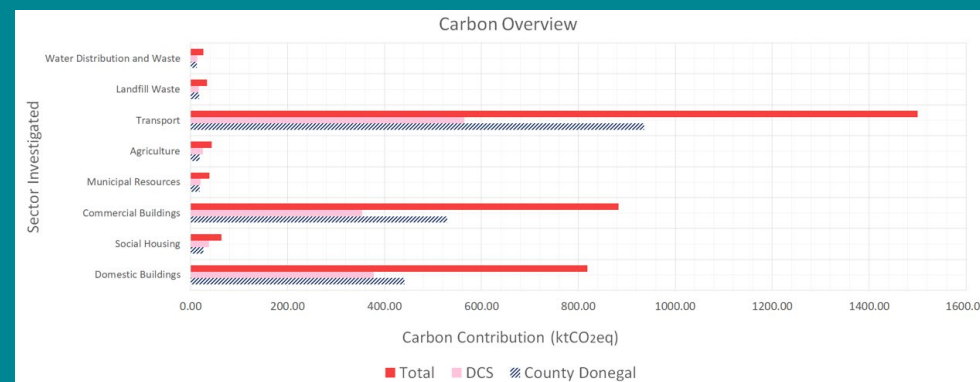
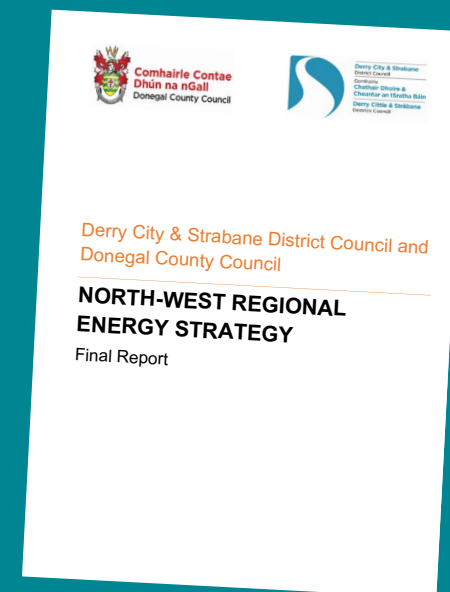
This strategy recommends a Whole Energy System approach and provides a holistic view on the consumption and management of energy throughout the region. A wide variety of local measures have been recommended as potential opportunities to encourage the adoption of renewable Low Carbon Technologies (LCTs) both for the consumption and generation of energy within the North West Region.

It is important that the North West Region has a very clear plan on how it should become carbon neutral given the specific characteristics and requirements of the area. This plan should coordinate all energy vectors together to optimise energy consumption across the North West Region and minimise both Greenhouse Gas (GHG) emissions and customer bills whilst minimising cost and maximising opportunity for all who live and work within the area.

Through the acceleration of this transition, the North West Region is presented with a huge opportunity in becoming a proactive "prosumer" in the energy market and contributing towards future balancing markets both with the electricity

transmission and distribution networks, as well as the gas networks. The area intends to build a template to demonstrate how local authorities can intelligently decarbonise to meet binding emission targets whilst encouraging sustainable economic growth.

Both Councils have a history of driving energy conservation throughout their organisations, and through the ongoing delivery of this strategy, wish to remain a driving force for innovation in the region. They will bring together the strands necessary within their own organisations, working with the private sector stakeholders and academia to deliver the objectives as set out within the report.



### North-West Region Carbon Baseline

Three main sectors; Transport, Commercial Buildings, and Private Domestic Buildings, have significant contribution to the carbon baseline making up 94% of the total baseline (44%, 26%, and 24% for transport, commercial and domestic buildings respectively). This highlights the key focus areas for DCC and DCSDC authorities to target with carbon neutral development strategies.



# Energy Efficiency activity within the Housing Association Sector

Good housing design has a key role in meeting the aspiration of delivering sustainable communities and protecting our environment, stimulating economic growth, maximising wellbeing and achieving social inclusion. Local housing associations play a central role in the construction of high quality, energy efficient new homes throughout Northern Ireland.



## Apex Housing Association

Apex Housing Association is a major housing association managing a stock of some 4,500 homes, which will grow to over 5,500 when its current planned development programmes are completed.

### Energy efficiency upgrades

A total of 350 energy efficient condensing boilers were installed in homes across Derry/Londonderry, Tyrone and Fermanagh throughout the year. 267 of these conversions were oil to natural gas and a further 83 upgrades were to high-efficiency oil boilers. These upgrades will improve thermal comfort, keep homes warmer for longer and help tenants reduce their heating costs.

Our supported living schemes also benefitted from energy efficiency upgrades. At Parkview House and Parkview Court in Castlederg, Apex undertook a conversion from oil heating to Liquid Petroleum Gas (LPG). This upgrade, coupled with the installation of new fully programmable heating controls, has allowed their nursing, housing with care and sheltered residents to enjoy the benefits of having a new energy efficient heating system installed.

Nearly Zero energy Buildings (NZeB)

- Apex has 2 NZeB pilot projects at design stage for delivery in 2021/22 financial year.
- Apex is adopting a 'fabric first' approach to these deliveries as this will help address tenants fuel poverty.

- We are installing air source heat pumps in conjunction with underfloor heating on ground floors with oversized radiators on first floors.
- We are installing PV panels and batteries to allow tenants to use 'free electricity.'
- One set of units will be built with masonry and the other set will be timber framed. This is to allow us to compare the different approaches and understand the issues relating to embodied carbon and carbon reduction as climate change is a major challenge to all developers in the coming years.
- The purpose of these pilot projects is to allow Apex to anticipate the upcoming changes to the Building Regulations regarding fuel consumption.
- We also want to understand how best we can reach zero carbon status by 2030 whilst addressing fuel poverty for our tenants.
- We intend to share our knowledge on this topic with other HAs as agreed at recent NIFHA hosted meetings.



*Parkview House and Parkview Court in Castlederg received a heating conversion from oil heating to Liquid Petroleum Gas (LPG)*



*Apex Scheme, Rathmullan Drive, Rathcoole*



### Choice Housing Ireland Ltd

Choice is one of the largest independent housing associations in Northern Ireland providing high quality homes and care and support services to help meet the diverse needs of a wide range of customers, including older people, families, mature singles and people with complex needs.

Choice understands that energy cost is a concern for tenants and have put various measures in place to ensure that the homes they provide are some of the most energy efficient in the country

Choice Housing have a dedicated Sustainability and Energy team that operates within the Asset Management directorate. As part of their ongoing ambition to reduce fuel poverty and to protect the environment, they have a 'Sustainability and Energy strategy' which outlines how they will achieve this ambition.

Through a planned maintenance programme Choice conduct multiple boiler upgrades and fuel conversions annually. As part of the 2020/21 effort to reduce energy consumption, improve maintenance response and protect the environment, they installed six Building Management Systems (BMS) with extensive heating management capabilities.

These systems are deployed at communal schemes with large gas bills and some of our most vulnerable customers. The BMS provides us with a wealth of valuable data at our finger tips. Further, the system is enabled to compensate for external weather conditions. The BMS enables Choice to make automated adjustments in real-time to deliver thermal comfort at a reduced level of energy consumption.



### Clanmil Housing

Choice is one of the largest independent housing associations in Northern Ireland providing high quality homes and care and support services to help meet the diverse needs of a wide range of customers, including older people, families, mature singles and people with complex needs.

Clanmil's commitment to providing homes that are energy efficient, sustainable and comfortable for tenants is demonstrated by the appointment of an Energy and Environmental Officer. Clanmil is only the second Housing Association in Northern Ireland to do so.

**Energy upgrades (existing stock):** As part of Clanmil's annual planned maintenance programme to upgrade our lower performing homes (SAP rating E,F&G) to a higher standard, Clanmil carried out heating and insulation upgrades to 24 homes. This included oil to gas conversions, old Economy7 to energy efficient quantum heaters, loft insulation, cavity wall insulation and low energy lighting.

Through response maintenance, Clanmil replaced and installed 164 new boilers including:

- 120 gas to gas boilers
- 22 oil to oil boilers
- 1 Air Source Heat Pump with 1 ASHP
- 4 oil to gas boilers
- 1 old Economy 7 boiler to oil
- 16 Old Economy 7 boilers to Quantum heaters

Photovoltaic panels (PV): Clanmil made an investment of £280,000 in 2015 and installed

PV panels at 12 housing schemes totalling 221kW. To date, the panels have generated 871,000 kwh and this has reduced Clanmil's impact on the environment by 295T CO<sub>2</sub>.

For the year 2020/21 the 12 PV systems generated 180,000Kwh and reduced Clanmil's carbon emissions by 61T CO<sub>2</sub>. Based on 2020/21 electricity prices, this also saved £27,000 on purchased electricity.

### Looking ahead

Clanmil aims to introduce more renewable technologies across the organisation where feasible, as well as continuing other measures such as heating, lighting and insulation upgrades to our existing homes. This will reduce energy costs for tenants and help eliminate fuel poverty. This is also a step forward to achieving Clanmil's target to reduce carbon emissions by 10% by 2026 in line with our Environmental Strategy 2021/26.

The Environmental Strategy has four main objectives, which are:

- To ensure Effective Energy Management.
- To deliver more Sustainable Homes.
- To deliver Positive Environmental Management.
- To raise Environmental Awareness.





### Connswater Homes

Connswater Homes is proud to report that, wherever possible, we incorporate solar systems into our homes to produce renewable clean energy for our tenants.

Photovoltaic panels at our Milewater Drive scheme powers 1kW system closely matched to the tenants' energy requirements.



*Rural office served with EV charging and Solar PV panels*



Rural Housing Association has been named as one of the Top 30 Sustainable Housing Providers in the UK by Housing Digital Magazine, for our efforts in working to reduce our carbon footprint and promote more sustainable ways of working.

To us as an organisation sustainability is not just about ensuring we don't negatively impact the environment around us, but that we are also adopting a proactive approach to implementing sustainable strategies through all our core activities including using renewable energy, launching 'green' initiatives in rural communities, using sustainable materials and cutting down on our carbon footprint.

Our sustainability journey has focused on several key areas: 1) Our Office building has benefited from the installation of EV Chargers for fast charging of electric and hybrid cars, these chargers are powered by onsite photovoltaic cells and of course some Northern Irish sun! We have also switched to digital ways of working helping reduce our carbon footprint. 2) We have launched a series of community activities with an eco-focus through partnership working with organisations such as The Conservation Volunteers. This has saw the delivery of zoom gardening classes, schools based eco-projects and sustainability projects for tenants. 3) Use of website and social media channels to provide information for tenants as to how they can reduce energy consumption and save money on energy bills. 4) When developing new build social housing in rural communities we have introduced new more eco-friendly forms of heating, helping reduce energy costs for our tenants.

**To have a more  
equal society**





## Ways that Housing Executive tenants save money and reduce fuel poverty

The Making Your Money Work Service is delivered by frontline staff and aims to assist tenants to improve their financial wellbeing through provision of:

- Advice and assistance with simple household budgeting and benefit entitlement. This element of the service has recently been enhanced with the introduction of the Benefits & Budgeting Calculator which allows staff to help tenants to check they are in receipt of the correct benefits for their circumstances and to manage their household income effectively.
- Referral for independent specialist advice for tenants with serious or complex debt issues.
- Referral for floating support services for tenants with perceived vulnerabilities.
- Provision of advice and assistance with the Department for Communities "Make the Call" service.

Phase 2 of the Making Your Money Work service is currently under development to further enhance the service through the provision of advice and assistance with regard to bank account options, credit unions, energy suppliers, media packages and employment opportunities.

The Housing Executive believes this service will provide tenants with opportunities to review their energy supplier with the possibility of 'switch and save' and reduce fuel poverty.



## Housing Executive's Financial Inclusion Managers

We have 3 Financial Inclusion Managers who are here to help our tenants with benefits and money advice.

Niamh (South Region), Michael (North Region) and Sinead (Belfast Region) are here to:

- Carry out benefit checks and help tenants to resolve complex benefits issues and problems
- Help with household budgeting
- Provide impartial advice to help reduce any debts and ensure tenants can make the most of their household income
- Help tenants to access other services to help alleviate immediate financial hardship (e.g. charitable organisations, grants etc.)
- Support frontline staff in delivery of the Making Your Money Work service

Together they directly assist around 200 tenants per month (more than 2,600 tenants in the past 12 months) to improve their financial wellbeing.

Some examples of how customers have improved their financial situation by talking to a Financial Inclusion Manager:

- A couple who are now better off by almost £16,000 per year after seeking advice because their income had reduced due to long-term illness.
- A pension aged customer who was receiving just state pension and struggling to pay rent discovered she was entitled to full Housing Benefit and Pension Credit and was supported to make the claims.
- A pension aged couple who believed they would not be entitled to any benefits discovered that they could get Housing Benefit and make a claim for Carers Allowance.
- A customer whose benefit had stopped and was confused about what to do next. After a chat with his Financial Inclusion Manager, he was helped to make a new benefit claim. During their chat, the Financial Inclusion Manager picked up that the customer had some health problems and also provided advice on other benefits he might be entitled to and how to claim.
- A customer, overwhelmed by a recent bereavement and struggling to understand what benefits to claim, was helped to get a Bereavement Support Payment and to claim the correct benefits for her situation. As a result, she is over £500 per month better off.
- The Housing Executive believes this service will provide tenants with opportunities to review their energy supplier with the possibility of 'switch and save' and reduce fuel poverty.



## A Just Transition to provide a secure sustainable energy mix

The Housing Executive believes one of the greatest challenges is to ensure the energy transition does not deepen pre-existing social inequalities. The economic burden of the transition should be weighted towards the most polluting industries and manufacturers, not consumers.

To ensure a just transition, measures to accelerate a green energy transition should also:

- support jobs and growth of jobs that are environmentally and socially sustainably
- create work that is high value, fair and sustainable
- reduce inequality as far as possible
- help reduce poverty and derivations of poverty such as fuel poverty

The Housing Executive is committed to improving the lives of householders through its ongoing thermal improvement programmes and a 'just transition' is embedded into the Sustainable Development Strategy, which will be released in Spring 2022.



### Phoenix Natural Gas

transformed the local home heating market when it was established to bring natural gas to Northern Ireland for the first time in 1996. Now as the owner and operator of the largest natural gas distribution network locally, Phoenix Natural Gas is responsible for the safe and secure supply of natural gas to its 235,000 customers already connected to its 3,850km pipeline network. The company continues to grow its customer base by around 8,000 new connections per annum and has further extended its network into a number of new areas including East Down and Whitehead.

Having played a crucial role in the delivery of lower carbon fuel choice for consumers, Phoenix Natural Gas continues to play an instrumental role in the development of the NI Gas Industry's Roadmap to net carbon zero and demonstrating the potential for the continued utilisation of the existing gas network to deliver renewable gas solutions, such as hydrogen and bio methane, directly to consumers homes and businesses, supporting society's progress to a net carbon zero future.

Northern Ireland had the highest weekly household expenditure on energy of any UK region; it was some 14.7% higher in the period 2016-2019 than the UK average.

**However, the gap has narrowed considerably in recent years (from 36% in the period 2012-2014)\* Taken in conjunction with challenging economic conditions as well as the ongoing global pandemic, many families continue to face challenges with meeting their energy costs.**

In terms of its own stock, the Housing Executive's policy is to install natural gas-powered heating systems where gas infrastructure is available and installation is technically feasible, while in non-natural gas areas boiler replacements focus on home heating oil (kerosene). The Housing Executive fully recognises the need to decarbonise and is working with industry and academia to explore electrification of heating and the potential for green hydrogen and the possible option of hydrated vegetable oil (HVO) in the medium to long term. The focus is reducing carbon, while ensuring future energy options are both sustainable and affordable for the householder.

NI Gas Industry's Roadmap to net carbon zero and demonstrating the potential for the continued utilisation of the existing gas network to deliver renewable gas solutions such as green hydrogen and bio methane, directly to consumers homes and businesses, supporting society's progress to a net carbon zero future.



### SGN Natural Gas (Scottish Gas Network)

continues to develop the natural gas network in counties Derry-Londonderry, Tyrone and Fermanagh.

Over 2,200 customers are now connected across the network.



### Firmus Energy

currently has natural gas available to over 170,000 homes and businesses throughout its network area, which stretches from Newry through the central corridor in NI to Derry-Londonderry. Firmus continue to connect over 6,000 homes and businesses each year. The Firmus network and indeed all of the natural gas networks in NI are suitable to transport Bio methane and Hydrogen which means that the natural gas industry is in a great position to transition to net zero carbon. Existing boilers can accept Bio methane and a 20% blend of Hydrogen so every new connection can facilitate renewable gas when it becomes available, which may be from 2022.

## Utility Regulator

In the November 2021 newsletter from the Utility Regulator they highlighted their Corporate Strategy 2019-24 which commits to playing their part in achieving a low carbon future for Northern Ireland. To date, the Utility Regulator has approved investment in low carbon energy technology and played our part in helping Northern Ireland meet its commitments on energy generation from renewable sources. Over the next two years the Utility Regulator will be conducting electricity and gas network price control reviews that will facilitate millions of pounds of investment in these networks to help achieve decarbonisation.

The NI energy markets continue to face the unprecedented rises in international wholesale fuel costs felt across the world. These increases have been the drivers for recent gas tariff announcements and the most recent increases across electric and natural gas.

**The cost of fuel has increased significantly on global markets over the past 12 months and unfortunately market analysts predict that these higher prices will be with us for the next 18-36 months.**

This is undoubtedly unwelcome news for consumers and we continue to work with the Department of Communities, Department for the Economy, CCNI and other key partners to help identify any measures that can be brought forward to help consumers. Additionally, if wholesale prices begin to reduce, our system of regulation in Northern Ireland allows us to act to make sure that reductions are fully passed on to consumers as quickly as possible.

## NI Consumer Council



72,212

consumers used the Consumer Council's domestic energy cost comparison tool (Electricity and Gas)



36,368

viewed the home heating oil price page



33,091

people compared energy prices on the main Consumer Council website to identify potential energy savings

### Measuring energy efficiency investment

During 2020/21, the Housing Executive invested approximately £19.4m in order to improve thermal efficiency, influence and increase strategic action to tackle fuel poverty and improve access to energy efficiency measures and advice across Northern Ireland working with the Department for Communities.

Our indicators show the impact of COVID lockdown over most of the year had a negative impact on the availability of most of the funding providers to deliver the programme aspirations.

### 2020/21 Energy Efficiency Investment via the Housing Executive

	£
Housing Executive Heating Schemes	9,023,000
Housing Executive Double Glazing	2,295,000
External Thermal Improvements	70,000
DfC Affordable Warmth	6,677,000
DfC Boiler Replacement	1,214,000
Energy Marketing including, NI Energy Advice Service marketing.	59,000
Fund NEA	45,000
<b>TOTAL</b>	<b>£19,383,000</b>

*Above does not include the NI Sustainable Energy Programme of £7.9 million for energy efficiency schemes and Housing Association energy efficiency measures of £5.5m*

# Measuring Our Outcomes



## Outcomes: Improving People's Homes and Helping to Transform their Lives

Area of Activity	Position at the end of 2019/20	Indicators	Action	Progress during 2020/21
<b>Improving Domestic Energy Efficiency</b>	<p>The work for the NI HCS 2022, is ongoing and the assessment of the following will be included:</p> <ol style="list-style-type: none"> <li>1. Fuel Poverty</li> <li>2. Household energy efficiency</li> <li>3. Household energy type</li> <li>4. Ongoing cost of Energy Efficiency retrofit</li> <li>5. Reduction in Carbon dioxide emissions</li> </ol>	Initiatives/ Measures to improve energy efficiency	Evaluate/ Review data	The work for the NI HCS field trails is still to commence. The Covid pandemic and the increased sample size has meant that it has been pushed back.
	<p>Housing Executive staff promoted and engaged in a range of virtual events during 2020.</p> <p>Page dedicated to the Northern Energy Advice Service in the Love Your Home Magazine.</p> <p>Housing Executive participated virtually in the National Energy Action (NEA) UK-wide Fuel Poverty Awareness Day 27th November 2020.</p> <p>The Northern Ireland Energy Advice Service was brought in-house by the Housing Executive and formally launched via a virtual Webinar in August 2020 and continues to provide advice to households via 0800 111 4455 and the Get-in-touch facility on the Housing Executive's website.</p> <p>The Housing Executive entered into a partnership with Keep Northern Ireland Beautiful to deliver our schools energy efficiency awareness programme (SEEAP).</p>	Improved access to energy efficiency advice (number of customers)	Market the energy efficiency message	<p>Housing Executive staff promoted and engaged in various virtual events during 2021.</p> <p>Housing Executive participated virtually in the National Energy Action (NEA) UK-wide Fuel Poverty Awareness Day 3rd December 2021</p> <p>The Northern Ireland Energy Advice Service continues to provide advice to households via 0800 111 4455 and the get-in-touch on Housing Executive website</p> <p>The Housing Executive entered into a partnership with Keep Northern Ireland Beautiful to deliver our schools energy efficiency awareness programme (SEEAP)</p>



## Outcomes: Improving People's Homes and Helping to Transform their Lives

Area of Activity	Position at the end of 2019/20	Indicators	Action	Progress during 2020/21
<b>Reducing Fuel Poverty</b>	2,161 boilers installed through the Boiler Replacement Scheme £1.4m investment  Affordable Warmth Scheme expenditure £12.3m  NISEP contributed funding of almost £7.4m towards the installation of energy efficient heating systems and insulation measures.	Measured within NI House Condition Survey  Increase of affordable warmth for disadvantaged energy consumers (NI Housing Condition Survey Fuel Poverty average)	Provide fuel purchasing opportunities for low income families	1,773 boilers installed through the Boiler Replacement Scheme £1.2m investment  Affordable Warmth Scheme expenditure £6.67m  NISEP contributed funding of almost £7.99m towards the installation of energy efficient heating systems and insulation measures.
	Housing Executive took the service back in-house February 2020.  Number of Oil Buying Clubs remained static at 27 but with plans to increase Club numbers and membership  5,174 members purchased over 2.1m litres of home heating oil during 19/20  Savings of 12.8% below NI average price	Implement energy efficiency schemes within social and private housing sectors	Provide fuel purchasing opportunities for low income families	The refreshed OBC service has been up and running from September 2021 with membership increasing month on month.
	4,635 Affordable Warmth Measures in implemented in 2,594 homes.	Increase of affordable warmth for disadvantaged energy consumers (NI Housing Condition Survey Fuel Poverty average)	Implement energy efficiency schemes within social and private housing sectors	2,574 Affordable Warmth Measures in 1,599 homes





## Outcomes: Improving People's Homes and Helping to Transform their Lives

Area of Activity	Position at the end of 2019/20	Indicators	Action	Progress during 2020/21
<b>Living Sustainably - Protecting the Environment</b>	<p>The ERDF work is ongoing with a further and final phase of the programme consisting of approximately 700 dwellings will be briefed in the coming months.</p> <p>The Housing Executive are finalising a Draft CWI Action Plan for its stock response to British Board of Agreement's findings and recommendations. It will be issued for public consultation in the coming months.</p>	Increased innovation in sustainable energy efficiency	Research and install innovative measures to create more efficient homes	<p>The ERDF is due for completion in 2023. Due to the pandemic, nearly 1,900 properties will be completed by September 2023.</p> <p>Following consultation on the draft Cavity Wall Insulation Action Plan, for its stock in response to BBA's findings and recommendations, the Housing Executive has now finalised the CWI Action Plan.</p>
	<p>The HANDIHEAT project commenced in October 2018 and to date the four key work streams are being delivered as per the project timelines, namely:</p> <ul style="list-style-type: none"> <li>a. Policy Review of Fuel Poverty and Poor Housing from Poor Health.</li> <li>b. Best Practice Review of Energy Efficiency and Renewable solutions across Northern Europe.</li> <li>c. Two pilots to investigate low carbon heating solutions (electrify heating and biogas heating, along with whole house improved energy efficiency measures).</li> <li>d. A toolkit of solutions for rural communities across the partner countries of Northern Europe.</li> </ul> <p>Housing Executive gained Silver in the Business in the Community Environmental Benchmarking Survey 2020</p> <p>ISO 14001:2015 Environmental Accreditation was awarded to the Housing Centre and Direct Labour Organisation Offices in Portadown.</p>	Increased innovation in sustainable energy efficiency	Seek to increase electricity consumption from renewable resources	<p>In September 2021 HANDIHEAT held its final conference in Belfast as a means of drawing the project to its formal conclusion. This was a virtual event given the COVID-19 restrictions, with EU partners presenting online from their respective NPA regions.</p> <p>HANDIHEAT was granted a three month project extension due to the disruption of the pandemic, and as a result the project will officially end in December 2021, with final reports being submitted by April 2022.</p> <p>Housing Executive gained Platinum in the Business in the Community Environmental Benchmarking Survey 2021</p> <p>ISO 14001:2015 Environmental Accreditation was awarded to the Housing Centre and DLO Offices in Portadown</p>

## Outcomes: Improving People's Homes and Helping to Transform their Lives

Area of Activity	Position at the end of 2019/20	Indicators	Action	Progress during 2020/21
<b>To have a More Equal Society</b>	<p>New natural gas connections:</p> <p>Phoenix 8,000</p> <p>SGN (Scottish Gas Network) 281</p> <p>Firmus 5,500</p>	Reduction from 68% household reliant on oil based heating systems (HCS)	Provide measures to secure energy mix	<p>New gas connections during 19/20</p> <p>Phoenix 8,000</p> <p>SGN (Scottish Gas Network) 900</p> <p>Firmus 6,000</p>

## Conclusion

This has been another challenging year for householders across Northern Ireland with the ongoing COVID pandemic and the recent significant price increases in energy bills. In the year of COP26 and the 'code red for humanity' report prior to COP26 there is a unified recognition the time for transformational change to achieve Net Zero.

The Housing Executive believes a 'step change' is needed if we are to achieve Net Zero within 30 years, as in the last 30 years Northern Ireland has reduced its GHG by just 18%.\*

The Housing Executive believes a step change in the delivery of energy efficiency interventions is needed to mitigate the current raises in energy prices. Recent reports suggest between £6-9 billion is required to upgrade residential housing across Northern

Ireland, which will be a significant economic green growth driver for the local economy, reduce health inequalities and tackle fuel poverty.

This will need clear direction and creditable options for the energy transition, supported by collaboration with local colleges and industry to develop local apprenticeships and training. This will result in developing current 'cottage industries' into main stream delivery of energy efficiency and decarbonised heating systems.

The Housing Executive welcomes the detailed outreach and consultation from the Department for the Economy to provide a new Northern Ireland Energy Strategy which offers guidance on the transition to a Zero carbon and climate-resilient society in future years. The Housing Executive also

looks forward to the publication of an agreed NI Climate Bill, as envisaged in the Northern Ireland Executive's "New Decade, New Approach" paper.

The Housing Executive will also continue to work in partnership with the Department for Communities, the Utility regulator, local Councils and other key stakeholders, to secure further reductions in energy consumption; deliver improvements in energy efficiency and to conduct research which will help to inform the development of de-carbonised heating solutions and improved energy efficiency. All of those work will assist in the on-going effort to alleviate Fuel Poverty and minimise carbon emissions across all households in Northern Ireland.

*\*NI GHG Statistics 1990-2019 figures (NISRA)*

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## Acknowledgements

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This document is available in alternate formats.  
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