# THE HANDIHEAT PROJECT

## Fuel Poverty Report

#### Abstract

This report provides an overview of fuel inequality across the NPA partner areas and the wider NPA region, providing an analysis of the level of poverty and responses to this problem.





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#### Introduction

HANDIHEAT will focus on energy performance in rural housing and public infrastructure in peripheral and arctic regions. The project aims to equip stakeholders with the skills and confidence and some tools to overcome the challenges faced because of our geographical challenges.

Overall, we share features of rural dispersed settlements, lack of critical mass, poor accessibility and vulnerability to climate change.

For many years, the work undertaken within the ARC has been based on the Marmot principles. In his work from 2010<sup>1</sup>, Professor Marmot sets out the differences in health and well-being and how these impact on a range of measurements of what he calls 'social determinants'. One of the six policy objectives established by Professor Marmot is the need to create and develop healthy and sustainable places and communities. ARC's role within HANDIHEAT is focussed on identifying policy gaps around fuel poverty. Recognising that we live in a rural environment that is de facto more vulnerable to fuel poverty, there is an absence of economically viable alternatives to fossil fuels and a lack of innovative energy models. We will work for policy change and new policy initiatives to address fuel inequity.

We are also strongly focussed on the linkages between health and housing and how existing housing stock can be improved to address energy poverty.

Government energy policy seeks to meet three primary objectives:

- Ensuring light, power and heat, and transport are affordable for homes and businesses
- Providing energy security
- Reducing carbon emissions in order to mitigate climate change

Notwithstanding that the energy sector is a major contributor to the UK economy, successive governments are bound by the following statutory fuel poverty target:

<sup>&</sup>lt;sup>1</sup> Fair Society Healthy Lives (The Marmot Review) February 2010







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'to ensure that as many fuel poor homes as is reasonably practical achieve a minimum energy efficiency rating of Band C, by 2030.'

This is an ambitious target given that currently less than 5% of fuel poor households are currently meeting this target.

The European Parliament mandates in Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action that member states should have knowledge of Fuel Poverty as it impacts on the population and a strategy to deal with it





#### Methodology

The nature of the subject matter and the breadth of information available on the subject has led us to consider the most appropriate form of research to utilise in our approach. The time available within the project suggested that there was little time for primary research. The project had outlined the need to utilise information for secondary research that was no more than three years old. Consequently, whilst we did a little primary research, involving a questionnaire designed to elicit responses to a standard set of questions around the topic from each of the partners in the project and a number of meetings with some key individuals, there has been a predominance of secondary research used in order to prepare the report for this aspect of the project.







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#### Energy Poverty

Boardman's definition of fuel poverty provided the original '10% definition, and gives a technical understanding of the term.<sup>2</sup> It is argued that this definition results in three main forms of intervention.

- Addressing the fuel efficiency of the property e.g. Energy Company Obligations
- Assisting low income households with high energy costs e.g. Warm Home Discount, Winter Fuel Payments
- Involvement in energy markets through encouraging switching. This is based on findings of an Ofgem survey which found a strong link between low income and low switching rates

In 2012, following the Hills Review, <u>http://eprints.lse.ac.uk/43153</u> England adopted a new measurement namely the Low Income High Cost (LIHC) measurements which defines a household as fuel poor if costs are higher than the median cost **and** meeting those costs would reduce the household income to below the median income.

Within the report, Energy poverty is generally defined as the inability to heat our living space to an adequate level. There are three aspects to this situation – the cost of fuel, income level and the fabric of the space being heated. This is the trilemma of fuel poverty. Clearly these factors are separate but interlinked insofar as a change in one or all, may have an effect on the level of fuel poverty experienced.

The guiding principles in addressing the challenges are the prioritising of the most severely fuel poor, supporting the fuel poor with cost effective policies and reflecting vulnerability in policy decisions.

There are significant challenges in addressing these matters

• Improving energy efficiency standards in fuel poor homes

<sup>&</sup>lt;sup>2</sup> The **Boardman**-based **definition** currently in use stipulates that a household is in **fuel poverty** if its required **fuel** cost is more than 10% of household income.





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- Working together to help the fuel poor through partnership and learning
- Increasing effective targeting of fuel poor households
- Improving the reach of support to certain high-cost homes such as non-gas or park homes
- Improving the reach of support to certain low income households- for example those who have health conditions linked to living in a cold home
- Tackling the burden of energy bills for those on low incomes.
- Ensuring the fuel poor are able to get maximum benefit from a fair and functioning energy market
- Enhancing and improving understanding of fuel poverty

For the purpose of this report, a desktop review has been undertaken of much of the work that has been done in relation to measures taken within the regions of the partners involved in the project, some of this highlighted by other members of the project team from around the regions. It is clear that much work has been done already in recognising the phenomenon that is fuel poverty and also there have been many approaches adopted across the regions to address this issue. Whilst it can be informative to read and learn what has been done and where, it is more important to try to assess how these have impacted at a policy level, and what more can be done at a macro level in addressing this significant problem.

We have also been challenged at a local level in relation to the absence of an operational legislative assembly. However, despite no functioning local assembly, the Department with responsibility for Fuel Poverty, the Department for Communities is currently working on a revised Fuel Poverty Strategy. It went out for consultation at the end of March 2021, with this process due to end at the end of June 2021. There is a hope that the strategy will be published by the end of 2021. In the interim, the 2012 Fuel Poverty Strategy has facilitated a policy piece to delivery schemes such as the Affordable Warmth Scheme.





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Whereas poverty, in its general definition can be addressed through income supports, fuel poverty, as Healy recognises it,<sup>3</sup> is a function of a more 'complex interaction between low income and domestic energy efficiency.' Therefore, although increasing payments to support fuel costs may increase an individual's capacity to pay for fuel, there will in all likelihood be an inherent inefficiency in that action. The household may achieve adequate heat on any given day, but will not be likely to achieve longer-term investment for future improved efficiencies. There remains a need to improve what Healy describes as the 'information gap' in knowledge of how to achieve efficiency improvements

It is this recurring problem of fuel poverty and its attendant impacts on health that give us pause for thought and require action to be taken, within the approaches adopted to address this in the longer term.

In a wider European context, there have been a range of projects that have examined this issue previously. These have included Assist 2gether.

The ASSIST 2 project examined a range of EU funded projects utilising specific selection criteria. These criteria were

- Projects involving at least 2 EU member states
- Projects looking at household/family energy consumption
- Projects which prioritise energy poverty/vulnerable consumers
- Projects with links to the other areas of interest for ASSIST
- Priority was given to more recent activities but exceptions were made where relevance was determined

This gave them 30 projects to look at. They were broadly split into two categories:

- Action projects these were deemed to have clear outputs and concrete results – focussing on consumer activities and behaviour changes with the expectations of energy savings
- Research projects these essentially examined the current position of energy poverty and vulnerable groups of consumers

<sup>&</sup>lt;sup>3</sup> Housing, Fuel Poverty and Health – A Pan-European Analysis published 2017,







Some projects bridged these two types, with research linked to activity

Additionally, the projects broke down into two geographic categories. Of the 30 reviewed, 6 were EU wide, whilst the remaining 24 involved between 2 and 16 member states.

The ASSIST project examined the manner in which member states defined issues of energy poverty and vulnerable consumers. A range of positions were clearly identified. For this review I have confined myself to the partners within HANDIHEAT.

#### Definition

How do our various partners define fuel poverty within their jurisdiction? It is accepted that fuel poverty/energy poverty is a function of at least three factors – income, energy and the energy efficiency of the home. However, as there is no single agreed definition of fuel poverty, the approaches broadly fall into two categories. Firstly the expenditure method – how much of household income is spent on meeting the energy costs of the household. Secondly, the self-reported data – what might be described as the lived experience of the householder, what level of arrears do they report and what level of thermal comfort do they find in their home.





#### **FINLAND**

There is no official definition for energy poverty but the Ministry of Environment has thus defined it:

'Energy poverty refers to the difficulty of maintaining or satisfying the basic needs due to energy costs, this means difficulty or inability of maintaining an appropriate temperature in the dwelling or difficulty paying for other essential energy related services such as household, electricity, hot water use and including transport energy when it is of necessity'

Due to distances involved, transport costs/car can be a necessary requirement for maintaining livelihood and social contact.

Finland also does not have a formal way of identifying vulnerable consumers but again the Ministry of Environment define people as being at risk of energy poverty as households with a small income and large non-energy efficient dwellings.

Finland have a Programme to Promote Sustainable Consumption and Production – Getting More from Less, Wisely. These Finnish initiatives on sustainable consumption and production deal specifically with three key areas, housing, food and transport. One of the targets that interests most in the context of this project is that the Finnish authorities have set a target to reduce the energy use of buildings by 60% by 2050. This is being underpinned by central government mandating that officials follow a new set of environmental purchasing principles including considerations around energy efficiency using life-cycle analyses to help assess the impact of alternative products and services.

Finland has a long history of this type of intervention – in 2005, Getting More from Less preceded Getting More from Less, Wisely.

In 2015, the European Commission issued a communication on the Circular Economy- the purpose of which was to endeavour to steer societies from a pattern of







linear consumption to a smarter and more sustainable use of resources, which would have a positive impact on waste management.

In December 2017, the Finnish Ministry of Economic Affairs and Employment published a report 'National Energy and Climate Strategy for 2030'. In the abstract of this report it is stated: 'with minor exceptions, Finland will phase out the use of 'coal for energy' and 'an obligation to blend light fuel oil used in machinery and heating with 10% bio fuels will be introduced.'

- Coupled with ambitious targets to replace traditional vehicles with electric and gas-fuelled vehicles, they aim to achieve an 85/90% reduction in greenhouse gases by 2050. They also plan to halve the domestic use of imported oil.
   Finland take account of three aspects of their energy and climate policy which are required to be in balance.
- Cost-effective to enable economic growth and ensure Finland remains globally competitive
- Be sustainable with regard to greenhouse gas emissions
- Offer sufficient security of supply

Finland, along with the majority of its European neighbours, has committed to ensuring that legislation has been enacted around the built environment, enshrining eco-efficient and energy efficiency measures therein. This now requires all new buildings to certify a range of measurable factors relating to both inputs and outputs of the building, leading to achievement of a mandatory energy certification system. There is a focus on the provision of heating solutions that are both efficient and economical. Whilst the majority of larger cities and towns have access to district heating solutions, there are emerging examples of this type of provision in the countryside, making use of biogas products for the provision of heat. This can provide a cost-efficient solution, with added environmental benefits.

Research suggests that Finland does not have specific national objectives related to energy poverty outside of dealing with it as part of general social welfare objectives – i.e. they recognise that access to energy fits in with general rights to necessities. Approaches within Finland to address the issue of fuel poverty and fuel inefficiencies in dwellings are mainly through the





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taxation system. If householders improve their housing with regard to heating efficiency, there is a small concomitant benefit on taxation. Whilst this is a positive matter, the benefit is not related solely to energy, but 45% is deducted off the labour costs of the work.





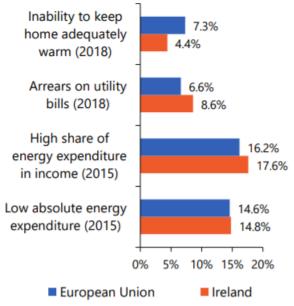


#### Republic of Ireland

There is a long history of researching and addressing the issue of fuel poverty in the Republic of Ireland (ROI) - originally in 2003, 2004 and most recently in 2019 (ESRI). Whilst these efforts may have started with simple retrofit measures, over time they have developed to deeper retrofitting programmes.

The government of ROI have published two strategies with the stated aim of reducing energy poverty in Ireland. Since 2000, there have been in excess of 135,000 homes upgraded through funding support by way of schemes administered by the Sustainable Energy Authority in Ireland. This is in addition to retrofitting of some 70,000 Local Authority homes.

There are a range of indicators of what continues to present as a problem within the ROI. The first of these is a table indicating that Ireland appears to perform better than EU average in terms of the percentage of people who struggle to heat their homes adequately.



#### Performance relative to EU average\*

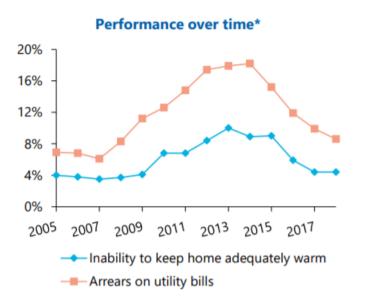
Source: Energy Poverty EU





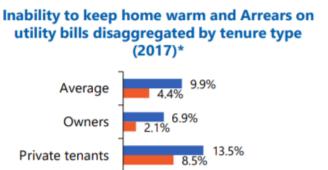
The difficulty with this representation is that it masks the fact that due to the reliance on oil and solid fuel as heating options in Ireland, and that these are procured through up-front payments to the supplier, there is a very real possibility that it hides the true extent of the problem.

From the same source, it is interesting to compare the performance of householders over time in relation to meeting their costs of home heating.



Source: Energy Poverty EU

Looking further into the difficulties experienced in meeting utility costs, there are clear differences based on the tenure and type of householders, as demonstrated by the following two charts.



Social housing

0% 10% 20% 30%

Inability to keep house adequately warm





19.2%

#### Inability to keep home warm and Arrears on utility bills disaggregated by dwelling type (2017)\*9.9% Average 4.4% 6.8% Detached 12.4% Semi-detached 4.8% 9.2% Apartment 6.8% 0% 5% 10% 15%

Arrears on utility billsInability to keep house adequately warm

Source: Energy Poverty EU

It is apparent from the two charts, that whilst no tenure is immune to the problem, there remains significant opportunity for improvements especially in the social housing stock. Furthermore, no type of dwelling is immune to these problems either.

In recognition of this, the government in Ireland committed €100M to continue with measures to support these schemes.

The establishment of the Energy Engage Code in 2014 has been a positive contributor to the plight of those finding utility bills and fuel costs to be a struggle for them.

The chart below succinctly summarises the strong efforts within the ROI in this regards

Selected measures	Type of measure	Organisation	Target groups	Start year	Result
Better Energy Warmer Homes	Building insulation, energy audits, household appliances	National government	Low-income households	2000	135,000 homeowners have had energy efficiency measures carried out to their homes under this scheme.
Fuel Allowance & Household Benefits Package	Energy bill support	National government	Low-income households	1988	Approximately 410,000 recipients per year.
Social Housing Retrofit Programme	Building insulation, heating system	National government, regional covernment	Social Housing	2012	70,000 social housing properties upgraded
Code of Practice for Energy Suppliers	Disconnection protection	National government	Vulnerable Customers		Protections for customers in difficulty with their electricity or gas bills

Energy Poverty EU





Source:



The Republic of Ireland has a population of 4.9M with some 13.9% of these over 65. Currently, approximately 10.3% of primary energy within ROI is from renewables. The Government has set ambitious goals to achieve steep greenhouse gas emissions reductions every year with all ministers charged with making climate action 'a core pillar of their new departmental strategies.' The initial carbon budget for the next five years has seen the coalition government pledge to 'incorporate measures which initiate significant change'. These policies include banning new oil and gas drilling and scrapping plans to develop an LNG terminal at Shannon for gas imports from the USA. The government wants renewables to deliver a minimum of 70% of electric by 2030. They want to add 5GW of offshore wind in the next ten years and develop floating wind turbines in the deeper Atlantic waters of Ireland. They have also given a commitment to retrofit 0.5M homes for energy efficiency over the next 10 years, accelerating the electrification of transport and banning the registration of petrol and diesel cars from 2030. Currently there is not a final date for banning the burning of peat and coal as heating sources.

The recognised definition of energy poverty in Ireland is where a household spends more that 10% of disposable income on energy services within the home. Ireland is ranked 25<sup>th</sup> in the EU in relation to the target of reducing the risk of poverty or social exclusion (AROPE). Those in fuel poverty are identified through the welfare system and supported with the Household Benefit Package and Free Fuel Allowance. When combined, these two supports can amount to a direct post-tax subsidy of €1,050 pa to those in receipt of the qualifying social welfare payments.

The Strategy to Combat Energy Poverty <sup>4</sup>(published February 2016) clearly states that energy efficiency measures are a more reliable way to eliminate deprivation than income subsidies. This is evidenced by the example of increasing the BER from E1 to B2 which has the potential to generate savings of €2,524 pa. In practice, this is exemplified by the upgrading of 135,000 homes in terms of energy efficiency. Currently, Ireland are piloting the Warmth and Wellbeing Scheme, with a total budget

<sup>&</sup>lt;sup>4</sup> https://www.gov.ie/en/publication/14e2b-strategy-to-combat-energy-poverty/







in excess of €20M for deep retrofit energy efficiency. This scheme targets those specifically experiencing energy poverty and acute health conditions.

The recently published Climate Action Plan<sup>5</sup> includes a commitment to review ways to ensure that current energy poverty schemes reach those with the greatest need. It also makes a commitment to ensuring that the implications of developing Carbon Pricing proposals on those on low incomes are points for consideration. There is recognition with the plan that a significant shift in the transport sector from internal combustion engine vehicles and the retrofit of existing buildings with electricity powered heat pump systems, will almost certainly result in significant improvement, this to be measured in local air quality metrics and health outcomes.

The Climate Action Plan also states the need to introduce stricter requirements for new buildings and substantial refurbishments, with a design policy to get 0.5M existing homes to B2 BER and to achieve 400K heat pump installations.

Future Ireland Jobs identifies transitioning to a low carbon economy as a key pillar for expanding the opportunities for employment.

In the Republic of Ireland, there has been the establishment of the Sustainable Energy Community initiative, whereby a community made up of domestic residences, community centres, churches, and businesses can apply for a range of supports that encourage sustainable energy solutions, local economic development and public well-being. These supports will ensure that energy savings are made, thereby reducing costs and helping to eliminate fuel poverty, Additional benefits include educational resources and opportunities, site visits to share best practices and networking with other areas. The most recently published Annual Report from 2018, states that there were 21,350 home energy upgrades, including 5,710 energy poor homes. This is a significant tool in the armoury of fighting fuel poverty and from the spread of registered communities currently totalling 350, there is a level of penetration across the country. This looks like a very strong model for promotion of sustainability and appears to have the capacity to address some aspects of fuel poverty.

https://www.gov.ie/pdf/?file=https://assets.gov.ie/25419/c97cdecddf8c49ab976e773d4e11e515.pdf#page=n ull







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<sup>5</sup> 

In December 2019, a major charity working with families and individuals in need - the Society of St Vincent de Paul, reported that despite the positive impact of the rollout of Pay-As-You-Go meters and the implementation of the Energy Engage Code, they had provided €5M support for energy costs – an increase of 20% from the previous year. These two measures were designed to afford added protection to vulnerable customers with arrears. They also reported that the target group of households with children had been identified. Previously, prominence had been afforded to households of older people. Their briefing therefore focussed strongly on households with children and families.







#### <u>UK</u>

Widely credited with having first looked at the issue of what is now termed Energy Poverty within the EU, but was then referred to as Fuel Poverty, the UK saw the publication of Boardman's Fuel Poverty: from cold homes to affordable warmth. Since then there have been many additional publications looking at this issue, adding to the wealth of knowledge that exists today.

The United Kingdom covers four different countries, each with their own independent legislative bodies, which have responsibility for some 'devolved' matters. In general terms, the UK deems a household to be energy poor if the income is below the poverty line, taking account of their energy costs and their energy costs are higher than is typical for their household type. In relation to identifying those in energy poverty, the welfare systems utilise the low-income high costs assessment. It is therefore important to look at how different regions deal with the issue, what their individual approaches show about fuel poverty and how it is recognised and what actions are being taken to reduce it.

#### SCOTLAND

Scotland has taken very definitive action to address the issue of Fuel Poverty.

In legislation in Scotland 'Fuel Poverty (Targets, Definition and Strategy) (Scotland) Act 2019 defines Fuel Poverty as

'A household is in fuel poverty if the household's fuel costs (necessary to meet the requisite temperature and amount of hours as well as other reasonable fuel needs) are more than 10% of the household's adjusted net income and after deducting these fuel costs, benefits received for a care need or disability, childcare costs, the household's remaining income is not enough to maintain an acceptable standard of living.' If the household is required to spend more than 20% of net income, the household is deemed to be in extreme fuel poverty.

This legislation also sets out a new target for the reduction of fuel poverty – this being 'no more than 5% by 2040. A new definition is proposed - meaning that a household must meet two criteria:





- Its required fuel costs must be more than 10% of household net income after deducting housing costs and;
- The remaining household net income after the payment of fuel costs and child care costs must also be insufficient to maintain an acceptable standard of living for the household.

The legislation further defines the temperature and heating time requirements for homes which are considered as minimum:

For households requiring an enhanced heating regime, this would be 23°C in the living room and 20°C in other rooms. For other households, this is 21°C in the living room and 18°C in other rooms. For a household for which enhanced heating hours is appropriate, heating the home to the requisite temperatures for 16 hours a day, every day. For any other household, heating the home to the requisite temperatures for 9 hours a day on a weekday and 16 hours a day at the weekend. "Net income" means the income of all adults in the household after deduction of income tax and national insurance contributions.

The context for this work within Scotland is within the following framework.

The Scottish Fuel Poverty Advisory Panel was established in April 2018 to advise Scottish Ministers on fuel poverty issues in Scotland, providing constructive feedback on progress in meeting targets. In particular, it states that it will:

- provide independent advice to Ministers on fuel poverty matters, with the ability to research and draft independent reports to be submitted for consideration on this basis
- monitor and report on progress of the development and implementation of the Scottish Government's Fuel Poverty Strategy, including a new fuel poverty target
- support and challenge Government at all levels on the delivery of its fuel poverty and energy efficiency programmes, and efforts to tackle fuel poverty, recognising the broader poverty and climate change policy contexts within which these sit





- encourage and foster a partnership approach to tackling fuel poverty across the public, private and third sectors – this will include giving consideration to how the group can effectively and appropriately engage with other similarly strategic groups operating in related policy fields
- monitor and report on the delivery of the Rural Fuel Poverty Task Force and the Fuel Poverty Strategic Working Group's recommendations and report on progress
- produce an annual statement to Scottish Ministers on progress and outcomes
- Undertake specific in-depth work through short life working groups to explore relevant issues and make recommendations on how these should be addressed.

The Scottish Fuel Poverty Partnership Forum will be a representative body for the wider fuel poverty sector, and will:

- review the annual Scottish House Condition Survey results regarding level of fuel poverty
- provide a source of expertise that will be called upon to sit on short life working groups and provide evidence to the Panel when required
- support a co-ordinated approach to tackling fuel poverty across the public, private and third sectors.
- The Scottish Fuel Poverty Advisory Panel, in their first Annual Report<sup>6</sup>, published on 10<sup>th</sup> July 2019 advise of a strong belief that the target date to eradicate Fuel Poverty of 2040 remains too far in the future and they are keen to ensure that Government retain ownership of the problem. Fuel poverty is seen within the wider context of eliminating wider inequalities, which they have captured well within this diagram:

<sup>&</sup>lt;sup>6</sup> https://www.gov.scot/publications/scottish-fuel-poverty-advisory-panel-first-annual-report









Source: http://www.healthscotland.scot/health-inequalities/what-are-health-inequalities

Work on developing Scotland's Fuel Poverty Strategy has been paused in light of the current public health response to the COVID-19 pandemic. This has resulted in the suspension of meetings of both the Scottish Fuel Poverty Advisory Panel and the Partnership Forum. Whilst this response is understandable and will allow full focus and effort to remain on the response to this global health and well-being issue, it will undoubtedly delay the work of these two groupings. Regrettably, it will also probably make their work more salient and needed than ever.

There has been debate over the definition of fuel poverty following expert and stakeholder advice that the existing 10% definition from 2002 does not focus sufficiently on those household in greatest need.

There are four drivers of fuel poverty – energy prices, energy efficiently of homes, incomes and behaviours in the home.

The plan is to

- Establish the new definition of fuel poverty applying a minimum income standard, set out how to measure fuel poverty
- Enshrine in legislation a new target that <5% of Scottish households are in fuel poverty
- Ensure Scottish government Ministers have a long-term fuel poverty strategy within 1 year and publish a 5 year update on achievement

The proposed new definition:





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"Households should be able to afford heating and electricity needed for a decent quality of life. Once a household has paid for its housing, it is in fuel poverty if is needs more than 10% of its remaining income to pay for its energy needs, and if this then leaves the household in poverty."

The advantage of this new definition is that it will focus on low-income households through the new income threshold which will be 90% of the UK MIS after housing and childcare costs are taken into account.

It will also assist in the targeting of those most in need of assistance, no matter where in Scotland they reside.

The Scottish House Condition Survey moved to become a continuous fieldwork study in 2003 rather than an event with took place every few years. Key findings are reported annually with a drill-down of findings at local authority level being reported every three years.

The Scottish House Condition Survey 2016<sup>7</sup> identified 649K households (26.5%) of Scottish households were in fuel poverty – representing a reduction of 200K from 2014. There was an indicative spend of £1bn since 2009 on tackling fuel poverty and energy efficiency improvement measures

Scotland will continue grant aiding energy efficiency measures to combat fuel poverty, targeting the private rented sector through regulatory measures – imposed at change of tenancy, and encouraging the owner-occupied sector to put energy efficiency measures in place. An impartial switching service is provided by Home Energy Scotland and Citrus Energy. The Scottish government are committed to ensuring that incomes are maximised in those households most at risk of fuel poverty. In support of this, Scotland has passed the Social Security (Scotland) Act in April 2018. This Act established Social Security Scotland which will eventually have responsibility for the delivery of 11 devolved benefits to some 1.4 million people per year with a £3.3BN cost. The system is a right-based one, and this agency will have a huge role to play in ensuring delivery of appropriate benefits which should mitigate some of the fuel poverty risks for Scottish people.

<sup>&</sup>lt;sup>7</sup> https://www.gov.scot/publications/scottish-house-condition-survey-2016-key-findings







Energy Company Obligation (ECO) and Warmer Home Discount (WHD) are part of a framework set out by the UK government and the Scottish government will review if there are any tangible benefits in them utilising their limited devolved powers on some aspects of these two tools. They are committed to seek clarity on these measures which are not guaranteed longevity beyond the early 2020s. They are also committed to encouraging behavioural change with regard to energy efficiency behaviours through funding for Home Energy Scotland and provision of free, impartial and expert advice.

Scotland has to take account of the impact of measures on a range of communities based in urban, suburban, rural and remote areas. There is a recognition that the very aspects which make some communities more susceptible to high cost fuel options can also present an opportunity for some island and remote locations. These high costs provide an opportunity to implement innovative solutions utilising free resources such as wind and weather conditions.

Home Energy Efficiency Programmes for Scotland (HEEPS) makes greater support available to those seeking solutions in certain council areas of Scotland. Described as their 'flagship delivery vehicle', the support can be given as part of a governmentbacked Equity Release scheme, which ensures an equitable rate of interest that will not penalise the homeowners excessively. Warmer Homes Scotland is another support mechanism available to households in need of making improvements to the fabric of their home in efforts to increase fuel efficiency.

Recognising that the energy efficiency of properties is the only aspect over which the Scottish government has complete control, there is a need to ensure that customers with restricted meters get a better deal and reduce the risk of self-disconnection of those on pre-paid meters and also to raise the profile of the Priority Services Register. There is also the need to monitor the impact of energy efficient measures - this can be facilitated by smart meter monitoring and the data created by these.

The Scottish government also recognises the need to reduce the health inequalities that result from living in fuel poverty. Consequently, their draft strategy and Fuel Poverty Bill are backed up with a Health Impact Assessment. This document sets out the evidence and details of the effects on health and well-being of living in cold homes, the energy efficiency interventions and the partnership with NHS Scotland





and how this partnership can work towards reducing the health inequalities of those living in fuel poverty. One benefit of this will be the development of national referral pathways between the NHS and local advice centres. There are manifold benefits to this type of joined-up thinking and they include reduced working time lost, reduction in sickness absence from school and improved productivity.

Improved housing fuel efficiency also contributes to climate change commitments. Scotland is additionally committed to achieving their climate change targets in a fair and equitable way that tackles inequality and poverty and promotes fair and inclusive work opportunities, This latter aspect will be achieved through the possible job creation opportunities achieved by energy efficiency services and technological advances. Scotland have also prioritised existing routes to potentially at risk houses through local and community based agencies.

Aberdeen City Council are a leading example of innovative approaches being facilitated by the public sector to bring benefits to the residents of the city. In 2002, they established Aberdeen Heat and Power (AHP) which stands as an exemplar for tackling fuel poverty through the creation of district heating networks. A city that thrived on the discovery of North Sea oil, it was the main 2014 centre of the North Sea oil boom at the end of the 20<sup>th</sup> century. It has survived the decline in this industry around 2014 when oil prices plummeted and now has renewable energy as a strong focus for the future prosperity of 5the region.

The council assigned some 59 high-rise apartment buildings to AHP, and there are currently 50 of these within the district heating project. The savings of these residents are of up to 40% - AHP was established as a not-for-profit organisation. AHP are currently experiencing a growth in demand for the solutions that they provide and report interest in the private development sector. They report that this spike in interest is a consequence of the ban on new connections to the gas network in 2024. However, when making representation to the Scottish government, they were wary of the burdensome nature of potential licencing requirements, and exhorted ministers to be mindful of how this might mitigate the potential savings from which consumers might be able to benefit.





In December 2017, the Scottish government published the Scottish Energy Strategy, setting out their vision for energy in Scotland. The stated vision within this document is:

'A flourishing, competitive local and national energy sector, delivering secure, affordable, clean energy for Scotland's households, communities and businesses'.

It is noteworthy that affordability is central to this vision.

#### NORTHERN IRELAND

In NI there is a different way to calculate low income from how it is calculated in England, consequently NI compares favourably to England when looking at fuel poverty – 7% compared to 11%.<sup>8</sup>

In Northern Ireland, the most recent available figures are from the Housing Executive House Condition Survey and they indicate that approximately 22% households (160,000) live in fuel poverty, demonstrating a significant decrease from 42% (294,000) in 2011. A significant investment by the government to improve energy efficiency of more than £117 million (private sector) and £181million (Housing Executive stock) in the five years between 2011 and 2016 will have impacted on fuel poverty through the reduction in domestic energy consumption. Whilst analysis of fuel poverty households in 2016 shows a reduction in the overall proportion has fallen, it is clear that similar types of houses remain affected by this problem.

The statistics lead to the following conclusions

- Low incomes remain as a significant feature of fuel-poor homes with 55% of households with annual income of £10,399 being in fuel poverty – 78% of all households in fuel poverty had incomes of £10,599 p.a.
- 52% of those living in older housing (pre 1919) were in fuel poverty.

<sup>&</sup>lt;sup>8</sup> https://www.nihe.gov.uk/Working-With-Us/Research/House-Condition-Survey







- 34% of households living in small villages, hamlets or open country areas were in fuel poverty
- 38% of household headed by someone in the age category 75+ were in fuel poverty
- 34% of older household house were in fuel poverty
- Of those householders or those registered as head of house who weren't working – 32% were in fuel poverty and those who are retired - 31%

Since 2011, there has been considerable investment, of approximately £300 million in energy efficiency measures in Northern Ireland. £117 million was invested in the private sector through the Warm Homes, Affordable Warmth and Boiler Replacement schemes. £181 million was invested in energy efficiency improvements to NIHE stock through the solid fuel replacement programme and other schemes. There was considerable progress evidenced in the 2016 House Condition Survey in achieving higher levels of energy efficiency. 99% of all dwellings had central heating. Oil continued to be the predominant fuel source in Northern Ireland (68%). There has however been significant penetration of gas central heating across parts of the region, and a decline in the use of less efficient fuel sources such as solid fuel, electric, or dual fuel. There was an increase in the use of the highest standard of loft insulation. In particular, there was an increase in the use of the highest standard of loft insulation (more than 150mm in thickness) from 35% in 2011 to 54% in 2016.

There was also some improvement achieved in relation to double-glazing, with the proportion of older dwellings with full double-glazing increasing (especially in those dwellings built between 1919 and 1944). The SAP model was modified between 2011 and 2016 so no comparison is possible

The overall SAP 2012 rating for dwellings in Northern Ireland in 2016 was 65.83. This rose to 66.32 for occupied dwellings.

Energy Efficiency Rating bands (EER) are a common measure of efficiency. The Energy Efficiency Rating uses an A-G banding system, where A represents low energy costs i.e. the most efficient band, and G represents high energy costs i.e. the least efficient band. Bands have been combined to increase the robustness of the findings. • Social housing dwellings were most likely to have an EE rating of A-C (79% compared with 49% overall). • There was a clear link between dwelling age

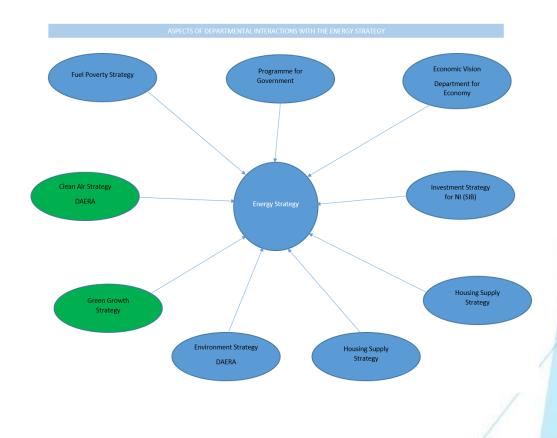




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and EER bands. The newer the dwelling the more likely it was to have an EER band A-C. Proportions in these bands ranged from 15% for pre 1919 dwellings to 72% for post 1980 dwellings (49% overall). • Dwellings in urban areas (57%) were more likely than dwellings in rural areas (35%) to have an EE rating in bands A-C. • Households with children (64%) were most likely to live in dwellings in EER bands A-C, while older households (38%) were least likely to live in dwellings in these bands.

In Northern Ireland, one of the biggest issues in the context of Energy is that it sits across a number of departments. The Department for the Economy has overall responsibility for strategy and policy, including the framework of law that governs these matters. The Department for Communities retain responsibility for Fuel Poverty and local legislative responsibility for energy efficiency and grant aid. Lead responsibility for Climate Change resides with the Department of Agriculture, Environment and Rural Affairs. Other departments retain authority over building regulations, transport strategy and local planning – all matters which impact either directly or indirectly on fuel poverty. The diagram below represents the various policy aspect all of which impact on the Energy Policy







Within Northern Ireland, there are a range of energy efficiency programmes available, some similar to those available in the United Kingdom. These include the following:

**Affordable Warmth** – this represents the main statutory scheme offering energy efficiency and heating measures to owner occupiers/private rented tenants with the current income criteria being gross income of less than £20K p/a – although this amount appears set to change to £23K p/a soon.

**Boiler Replacement Allowance** – this intervention provides for the replacement of older boilers (>15 years) with a grant of up to £1K for owner-occupiers with a gross household income of less than £40K.

**Northern Ireland Sustainable Energy Programme** – this programme which is funded through a small levy on customer utility bills provides for a range of energy efficiency measures to all household types – the majority of measures are means tested with income criteria of less than £25K Single, £35K couple/70+. There is a suite of measures with differing priorities and target groups. Many of these supports are aimed at those households who do not qualify for the assistance available from the two main government schemes – Affordable Warmth or Boiler Replacement Allowance.

Whilst these are referred to as Energy Efficiency measures, the Department for Communities promotes them as responses to Fuel Poverty. The clear linkages between Fuel Poverty and Energy Efficiency are easy to recognise and the relative impacts of taking energy efficiency measures and the concomitant effect that these should have on reducing fuel poverty make these two virtually analogous.

Within the public housing stock, the Housing Executive continues to upgrade its properties, retrofitting as appropriate and performing heating conversions.

Other agencies engage in a range of activities including the provision to vulnerable householders of items to keep warm – these are supplied by the Public Health Agency. Local charities offer fuel credit and there are a myriad of oil buying schemes aimed at cost reduction through bulk purchasing.

Other initiatives that exist but are no longer open are around Renewables and Obligations. These include the **Domestic RHI** (closed since 2016) but for those





already in, it will end in 2023, and the **NIROC** (Renewable Obligation Certificates) which closed to new applicants in 2017 – scheme due to end 2027 (or 20 years from the last entrants to the scheme). This scheme allows individual householders to generate heat and power using either solar/water/wind for their own use or to return to the utility companies – through a process whereby the utility companies can meet their obligations relating to using renewable sources for power. It is worth noting that in its document New Decade, New Approach, the NI Executive committed to close the Renewable Heat Initiative and replace it with a scheme that effectively reduces carbon emissions.<sup>9</sup> It is however, evident that Northern Ireland has not had a strategy to tackle the issue of Fuel Poverty since 2009. There is an on-going energy strategy consultation but it is not yet clear if it will benefit the fuel poor. The existing consultation document, released on March 30<sup>th</sup> and due to close at the end of June 2021, should see a strategy document produced by the end of the year. There are significant groups involved in lobbying those within the Department for the Economy to ensure that the strategy does address this. There are also strong lobbying groups around specific sectoral interests and it is important that those groups representing the fuel poor are given an equal voice.

#### **WALES**

The definition used in Wales for Fuel Poverty states that a household is defined as being in fuel poverty is the would have to spend more than 10% of their income on maintaining a satisfactory heating regime. If this percentage is more than 20%, the household is defined as being in severe fuel poverty. Whilst the statutory targets within Wales required them to achieve the eradication of fuel poverty within vulnerable households by 2010, the level then was 12%, in social housing by 2012, the level was then 11%, and in all households by 2018, it had reduced to 9%.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/856998/2020-01-08\_a\_new\_decade\_\_a\_new\_approach.pdf



Northern Periphery and Arctic Programme



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<sup>9</sup> 

In 2018, it was reported by National Energy on Action (NEA) that there were 155,000 households in fuel poverty.

### ENGLAND

England currently utilise the Low-Income High–Cost (household income lower than 60% of median income and higher than average energy costs). The targets within England are expressed as fuel poor households required to achieve EPC ratings by target dates EPC E by 2020, EPC D by 2025 and EPC C by 2030. England are currently in the process of changing this definition to living in a home with an EPC below C **and** having a residual income below the poverty line. There is evidence to confirm that progress is happening with 81% (2010) of fuel poverty households at EPC E, improved to 93% (2018), and comparably at EPC D, from 33% (2010) to 69% (2018), and at EPC C from 2% (2010) to 12% (2018).

It is clear that the response to energy poverty is in part, targeted around improving the energy efficiency of the dwelling. The most recent Committee on Fuel Poverty Annual Report (4<sup>th</sup>) indicates that without additional funding and new programmes to achieve the targets, there is almost no way that the targets will be met.<sup>10</sup>

It is worth noting that despite references within the current government's manifesto, albeit launched before the lockdown, to support funding energy efficiency measures for fuel poor households, there was no direct reference to these measures within the emergency response. Whilst this might appear to be understandable, it must be recognised that those for whom these measures would have been of most benefit, remain those most at risk in their absence. In light of the existing pandemic, difficulties in installations may remain. However, not taking these steps as we face into another winter season jeopardises many of our most vulnerable citizens even further. Current circumstances, the existence of COVID-19 and the rollout of the vaccine response, have to be considered.

<sup>&</sup>lt;sup>10</sup> Committee on Fuel Poverty Fourth Annual Report 2020 –June 2020







National Energy Action and Energy Action Scotland are the two sister charities which have been working in the area of Fuel Poverty for about the last 20 years. They publish the **UK Fuel Poverty Monitor** annually and clearly the report, released in September 2020, has a strong focus on the impact both actual and anticipated of the current pandemic.

Following their Call for Evidence they report that there were five main findings:

- People have been spending more time at home, therefore greater fuel use
- Reduced household income either through furlough or job loss
- Increased affordability issues leading to increase in indebtedness with the spectre of fuel rationing
- Fewer installations of ECO/Smart meters, due to limitations on access for households
- Exacerbation for those with connectivity issues and those for whom English is not a first language.

The report clearly gives much credit to those working in the energy sector with many examples of where many have taken significant steps to assist their customers who have found themselves in straitened circumstances. The organisations that provide support to those in most need found themselves having to respond to the new working environment and set up their response infrastructure with many of their own staff having to work from home. This brought its own challenges in terms of access to networks and partnership working. Examples of good practice include provision of support to customers on the Priority Services Register and the extension and promotion of this facility to those who may not have been, or not previously needed to be, aware of it.

The Call for Evidence also indicated that the prospect of entering the winter months with restrictions remaining creates a highly likely scenario of people choosing to ration fuel, a decision that can and often does have serious impact on both health and life. In normal circumstances, the so-called 'carousel of morbidity', whereby people are admitted to hospital with conditions related to poor housing quality, treated and returned home to the same unhealthy/unfit housing with its attendant health challenges, is estimated to cost the NHS between £1.4 and £2 billion in England alone each year. Coupled with this, medical experts predict that the





additional burden placed on the health service over winter could prove to be catastrophic in the midst of the pandemic.

The Fuel Poverty Monitor extracted five themes which they recommend addressing as we face into the next period of time.

The issue of identifying need will require better data sharing. The current position is that whilst energy providers hold a certain amount of information through the Priority Services Register – information designed to enable the energy provider to maintain service to the customer in the event of any service interruption, there is room for improvement which could allow for preventative measures to be implemented before a crisis situation is reached. They also recommend that there is a need for consultation on sharing of data between energy companies and those responsible for the shielding list, which could benefit the most vulnerable. This could allow for proactive approaches for support to be implemented and allow for targeting of support to those most likely to need assistance.

The second theme proposed by the Fuel Poverty Monitor is the support of those customers using Pre Payment Meters. This customer group were most at risk during the lockdown and there is a need to ensure that energy companies continue to prioritise their plans to move this customer grouping onto Smart meters. The tightest restrictions made this action challenging, as there was a reluctance on the part of householders to allow external workers into their home for anything even for essential maintenance. However, the issue of moving people from PPM to Smart meters has continually presented as a particular issue for Northern Ireland customers, an issue that came more sharply into focus during the lockdown period. Limits on top-ups through PayPoint have been particularly pertinent, including a limit to daily expenditure events have caused difficulty, as has the need to attend an external point - shop or venue - has posed particular problems in the context of lockdown, given the limitations to moving around and being in busy places. The PPMs do not give a warning when they are about to run out of credit and therefore require vigilance on the part of the customer which can be challenging for some vulnerable customers. NEA also raise the issue of there being a lack of information on how to change to a credit meter.





The third theme raised within the Fuel Poverty Monitor is raising awareness and communicating the support available to those who are most vulnerable. The most vulnerable include those for whom English is not their first language, those who are either digitally challenged or digitally disconnected. They report that some of the messaging around support measures were not received by those who most needed to hear them and whilst it is to be welcomed that traditional and non-traditional methods of communication were used, there continued to be a disconnect in how the message was transmitted and received. Putting this right will require contingency plans on behalf of suppliers to ensure that customers are held at the centre of their response plans. The challenges placed on suppliers are significant – staff required to work from home, sometimes without the infrastructure in place, relying on sometimes inadequate digital connectivity, access to information often held in secure workplace networks and linkages being fragmented because of a workforce suddenly not in one place. Whilst it is recognised that many changes were effected very speedily, it is necessary that we continue to ensure that service providers remain in a state of readiness in the event that the situation repeats itself.

The fourth theme raised has been the level of utility debt and the importance of utility companies recognising the attendant risks of high levels of debt. The primary concern is of self-disconnection and the potential impact on health of those who may choose this option. They recommend robust systems to pick this possibility up quickly to address it. Particularly pertinent to Northern Ireland is the fact that so many households are in off-grid areas. This means a reliance on an unregulated energy sector – and the difficulty in picking up signs in relation to fuel poverty. Anecdotal evidence suggests that third sector support remains the mainstay of many people in this category. Income protections are also a key measure to support this issue, requiring government to ensure that delays in processing payments are reduced to a minimum.

Finally, the Fuel Poverty monitor recognises the need to address a hiatus in Business as Usual policy making – specifically in relation to energy supply companies, whose routine activities have inevitably been affected by the lockdown and continuing restrictions. However, the impact of delays in relation to the Fuel Poverty plans and strategies across the nations of the United Kingdom has also been felt. It is recognised that following the initial lockdown, the Chancellor of the





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Exchequer introduced the 'Plans for Jobs'. This announcement was targeted at specific sectors with a view to pump-priming economic recovery and it included measures for the energy efficiency sector, with £2bn going to the Green Homes Grant. This scheme was officially launched on September 30<sup>th</sup> 2020. It has however, been subsequently suspended, following identified difficulties and inadequacies in its rollout. There appear to have been no direct equivalents in relation to the Barnett consequential spending to this announcement across the devolved nations. In Scotland, the government put up £350M to support those most at risk, with some of this targeted at fuel support programmes and help for those off-grid and finding difficulties in accessing fuel deliveries.

Suppliers were difficult to contact during lockdown, with reports of them often referring customers to on-line/email services with this exacerbating the difficulties for those for whom English is not the first language and those who are digitally challenged. Rural dwellers often have the added challenges of poor connectivity so that these support routes also presented added difficulty. During this time, there is also evidence that those families with children had more difficult choices – the heat or eat dilemma.

The impact of all these disruptions to those most at risk is evident and there is a clear need to ensure that there are mitigations in place to ensure that the restrictions and difficulties which COVID-19 places on everyone, do not overly burden those in the at-risk category for fuel poverty.

The Department of Business Energy and Industrial Strategy produced a quarterly report in August 2020, in which they reported that in the quarter ending June 2020, there were some 135,000 installations of Smart Meters, compared to 1 million in the same period the previous year. There was also a reduction in the ECO installations of 55% in April and May compared to March 2020, resulting in some 30,000 fewer interventions to fuel poor and vulnerable households.

The Committee on Fuel Poverty Annual Report (4<sup>th</sup>) makes a very strong case that the first priority must be the improved utilisation of the existing £2.5bn budgets to ensure that these funds are better targeted to those in fuel poverty. They indicate that currently less than 15% is currently going to those households who are fuel poor.







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Once again, the Energy Poverty EU information gives a very succinct summary of the measures that are in place in the UK:

Selected measures	Type of measure	Organisation	Target groups	Start year	Result
Warm Homes Nest Scheme	Building insulation, Energy audits, Heating system, Household appliances	Regional government	Low-income households Vulnerable households	2011	98,000 households in Wales have benefited from free advice and support
Energy Company Obligation	Building insulation, Heating system	National government, Energy suppliers	Low-income households Vulnerable households	2013	500,000 insulation measures taken per year since scheme inception
Decent Homes Programme	Building insulation, Heating system	National government	Social housing	2000	Over million social homes improved in first 10 years
Scotland's Energy Efficiency Programme	Building insulation, Heating system, Energy audits, Energy bill support, Information and awareness	Regional government	Vulnerable households	2016	
Winter Fuel Payment	Energy bill support	National government	Pensioners	1997	12.21m GB residents received payment for winter 2015/2016. 42,000 claimants resident in the EEA or Switzerland received payment.
<u>Cold Weather</u> Payment	Energy bill support	National government	Households on social benefits, Low- income households		131,000 payments in winter 2016-2017, total expenditure of £3.3m
<u>Warm Home</u> Discount	Energy bill support, Information and awareness	National government, Energy suppliers	Households on social benefits, Low- income households	2011	£320m support provided to vulnerable consumers between April 2015 and March 2016.
Energy Price Cap	Social tariff	National government	Vulnerable households	2019	
Minimum Energy Efficiency Standards	Building insulation, Heating system	National government	Private rented housing	2018	

Source: Energy Poverty EU





#### **ICELAND**

Iceland enjoys a level of prosperity that is enviable across large parts of the world. In 2008, Iceland suffered significantly because of the worldwide economic crash. However, they have experienced an impressive recovery, based largely on their tourism offering. The downside of tourism, which is predicated mainly on the natural beauty of the country and the environmental features that are unique to the place, is that those very sources of income could potentially be damaged by the influx of visitors that are expected to continue to grow.

Utilising the PPP exchange rate, Purchasing Power Parity – a mechanism for comparing purchasing power of two different countries in a manner that permits equilibrium, Iceland has poverty levels of approximately 0.10% of the population. They have 100% of their population with access to electricity and they do not measure fuel poverty statistics separately from general poverty measurements. In Iceland, 100% of electricity is from renewable resources, 73% from hydro, 27% from geothermal and less than 0.1% wind resources. Space heating is provided from both geothermal sources (90%) and 10% from renewable electricity. These forms of fuel are less sensitive to price fluctuation than fossil fuels may be. Furthermore, they are clearly more environment-friendly. With high population density around the geothermal resources of Iceland, there is access to what is essentially a less expensive heating option for large swathes of the country. It is therefore evident that fuel poverty is not the problem in Iceland that it is in many other countries within the NPA region.

Iceland has a long history of utilising their geothermal heating resource, mostly from small-scale local initiatives. Interestingly, these developments emerged as a result of post-World War I fuel hikes, as imports of coal and oil became a challenge for many householders. In essence, this need to address 'fuel poverty' long before it became an identified problem, is probably a main contributing factor as to why it is not really a national problem in this forward-thinking nation. In the report for Work Package T1 - Evidencing Excellence of this project, it is noted that a side effect of this move from coal and oil, has been the improvement in air quality, with its attendant benefits on respiratory conditions. Geothermal heating is therefore available in large parts of Iceland. Where this is not an option, again utilising grassroots solutions, hydropower





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has been effectively utilised which also provides a relatively cheaper option than expensive imports of fossil fuel alternatives. Developmental costs for some energy solutions are often cited as prohibitive. However, the aforementioned report on Evidencing Excellence also provides an example of innovative use of natural resources to provide a cost–effective solution to the provision of heating. This occurred in Heimaey, where the imaginative use of water that was used to cool lava, has been further used to generate heat. Additionally, they use waste heat from a fish processing plant to power a district heating system and use a sea water heat pump to provide the district central heating system with electricity. This project is expected to have a payback time of not more than 8 - 10 years, and hopefully more likely to be 6-7 years. The capacity for innovative thinking, combined with rich local resources, is striking in terms of the ability to reduce fuel poverty and provide relatively cheap, sustainable solutions for the lcelandic population.





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# Addressing Fuel Poverty across the Region

Interestingly, the ASSIST research indicated that even though the majority of member states lack a formal definition of fuel/energy poverty, they were not prevented from addressing the issue and identifying appropriate measures to assist vulnerable consumers. Some of those responding utilised the WHO definition.

'Fuel poverty is defined as having to spend 10% or more of a household's net income to heat their home to an adequate standard of warmth.'

ASSIST<sup>11</sup> identified a range of factors, which impact on energy poverty:

- The energy price rises against growth in income
- Ability to access cheaper fuel prices
- Energy needs within the household
- Energy efficiency use
- Policy interventions
- Attitude to seeking help

The conclusion is quite simple: that if member states are to address the issue of energy poverty, any measures put in place must address the identified risks.

A key measure in addressing the issues faced by those in energy poverty is some measure of financial intervention. This can be delivered as general assistance not necessarily aimed at paying for energy costs or it can be as a targeted payment specifically to meet fuel costs.

The factors that impact on the risk of entering energy poverty mean that those with specific requirements for heat i.e. they may be vulnerable due to age, illness, inability to work, these all mean that they experience fuel/energy poverty more keenly.

Addressing energy poverty is not a straightforward issue. Private rented tenancies often face the issue of split incentive, where the property owner is disincentised to make improvements to a property, the benefit of which improvements will be felt by the tenant and not the property owner. There is also a risk that these improvements may result in an increase in the rent.

<sup>&</sup>lt;sup>11</sup> https://www.assist2gether.eu/





# Financial Support for those at risk of Energy Poverty

Looking then at the regions within the HANDIHEAT project, what are the current financial support measures in place to address the risks of Energy Poverty

### UK

### Winter Fuel Payment

This is an annual payment of between £100 and £300. This payment is available to those born before 5 April 1954, and whilst there are a few qualifying conditions attached to eligibility, it is very much a widely available support to a potentially vulnerable group.

# Cold Weather Payment

This scheme runs annually between 1 November and 31 March, and makes a payment when the temperature hits below 0 degrees Celsius for a period of seven consecutive days. The payment clearly has a geographical limit – each area is determined based on the local conditions and there are a number of benefits that are linked to this payment being made.

# Warm Home Discount Scheme

This scheme can deliver a discount off electricity bills of £140 during the winter of 2019/20. Paid as a discount on a bill rather than as a direct payment to the claimant, this payment can also be a discount from a gas bill instead, where the supplier provides both gas and electricity, Access to this support does not affect either the Cold Weather Payment or the Winter Fuel Payment.

Qualification for the WHDS can happen if you are in receipt of aspects of Pension Credit or you are on a low income and meet the criteria paid down by your energy supplier.





### National Concessionary Fuel Scheme

This is a very limited support only applicable to ex-employees from the Coal industry, and is included only for completeness of information.

There is a range of other protections for consumers in a number of member states, including protection from disconnection. This can range from prior notification of disconnection, through to transfer of outstanding bills from commercial operators to the Distribution System Operator (DSO). Some other countries have a social tariff aimed at supporting the most vulnerable of consumers. In the Republic of Ireland for example, the cost of disconnection and reconnection are shared between the customer and supplier.

Energy poverty is a policy challenge that provides an excellent opportunity for crossjurisdiction opportunity for collaboration and provides a platform for mixing a range of competencies across a number of spheres of government – environment, economy, health and education. It is apparent from comparing the approaches taken across the regions, that there would be benefit in the harmonisation of disconnection procedures. Whilst there has been some degree of this in relation to the response to COVID-19 where there were protective measures put in place to ensure that the most vulnerable consumers were prevented from disconnection for a period of time, these protections were time limited and have now been suspended again.

The issue of energy efficiency is also inextricably linked to Energy Poverty. As expressed in other parts of this document, energy efficiency measures vary greatly in terms of efficiency, and are variable in the ratio of cost to benefit, making some activities less worthwhile than others. Within the rented sector there is also the issue of split incentive to deal with. Many countries have adopted the Energy Performance Rating scale to indicate how each building performs with regard to Energy use and there are plans within many member states to have this adopted as a requirement for landlords to be in compliance by a set deadline

In December 2014, the Government introduced a new statutory fuel poverty target for England.<sup>12</sup> The target is to ensure that as many fuel poor homes <u>as reasonably</u> <u>practicable</u> achieve a minimum energy efficiency rating of a Band C3,4, by 2030.

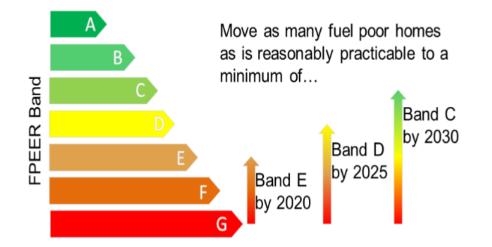
<sup>&</sup>lt;sup>12</sup> Annual Fuel Poverty Statistics in England 2019 (2017 data) BEIS







Whilst it is understandable that this target is nebulous – as reasonably practicable – it cannot be described as a hard target



Source: Annual Fuel Poverty Statistics Report, 2019 (2017 data)

In the Republic of Ireland, the Climate Action Plan published in June 2019, set out a number of actions required to take place in order to reduce Green House Gases. This includes a measure requiring the promotion of District Heating and the department responsible for this (Department of Communications, Climate Action and Environment) are currently out to consultation on this matter.

# Northern Ireland

# Affordable Warmth Scheme

This programme which is funded in Northern Ireland by the Department for Communities, is delivered in partnership between the Housing Executive and local councils (local authorities in NI).

It is aimed at private householders and those in the private rented sector. In order to qualify, household income has a strict limit of £20K and this includes earnings and some benefits are also taken into account. There are four distinct levels of support – Priorities and these are Insulation, Heating, Windows and Solid Wall Insulation. Rates of support vary depending on the priority being addressed with a maximum grant level of £7,500 (rising to £10,000 when solid wall insulation is undertaken in





recognition of the addition cost this measure involves). Measures undertaken through this scheme were impacted by the COVID-19 restrictions. In order to assess what measures were required, a Technical Officer from the Housing Executive grants department will visit the property and determine the level of need. Once approval has been given to the householder, the work is then undertaken by a contractor of the householder's choice. Upon completion, the grant is paid retrospectively. Private landlords can undertake this work on a property that they own but which is rented out, although the support is based on the income of the tenant and the landlord has to make a contribution to the costs of the improvements. In February 2020, it was reported that between April 2019 – December 2019, the Affordable Warmth Scheme accounted for a spend of £8.5M accounting for 1,942 homes. The previous year 2018/19 there were improvements made to 3,205 homes. In addition to this, the 'Make a Call' initiative through Department for Communities made a positive impact on households with 40% of beneficiaries reporting an increase in their level of home heating.

The 2018 Home Energy Conservation Authority 2018 report <sup>13</sup> reflects that the Northern Ireland Housing Executive expressed hope that the HANDIHEAT project would assist with developing decarbonised heating options, reducing the reliance on the unregulated oil industry, with the expectation that would reduce the level of fuel poverty experienced.

### **Republic of Ireland**

Only Ireland appears to have a specific category for channelling benefits to vulnerable people.

Interestingly, in the Republic of Ireland, the costs for disconnection and reconnection are shared between the customer and the supplier.

<sup>&</sup>lt;sup>13</sup> Home Energy Conservation Authority Annual Progress Report 2018







# Fuel Poverty and Health

The link between fuel poverty and health has long been recognised. In 2009, the then Chief Medical Officer, Sir Liam Donaldson indicated that there was a direct correlation between the two and estimated that each £1 GBP spent on making homes warmer, saved £0.42 GBP in the health sector. The UK Fuel Poverty Monitor reference the 'carousel of morbidity' whereby vulnerable people are often admitted to hospital as a result of health conditions that are either a direct result of, or significantly exacerbated by unhealthy living conditions. Their admission is then followed by a discharge into the same unhealthy living conditions. The Monitor attributes a cost of between £1.4B and £2.0 B per year – for England alone. These two cost indicators lead to the conclusion that significant savings could be made, with judicious investments to improve living conditions.

Sir Michael Marmot in 2010 examined the causes of poor health in England and what could be done to address the inequalities – he spoke of the social determinants of health – the conditions in which 'people are born, grow, live, work and age, and inequalities in power, money and resources'<sup>14</sup>. Ten years on from the original piece of work, Marmot has undertaken a review of how much progress has been made in addressing the issued identified<sup>15</sup>. He strongly indicated that rather than his recommendations not being affordable, it was not acting on them that was not affordable.

It was noted in the Health Impacts of Cold Homes and Fuel Poverty 2011<sup>16</sup> that the effects of cold homes contribute to excess winter deaths – citing that 21.5% of these are attributable to cold homes. There are strong relationships between cold indoor temperatures and cardiovascular and respiratory diseases, and also strong indications that there are adverse effects on mental health. In England, in 2017, almost 11% (2.5 million) households were classed as fuel poor. There were 10,000

 <sup>&</sup>lt;sup>15</sup> Marmot M, Allen J, Goldblatt P, Boyce T, Morrison J. The Marmot Review 10 Years On. IHE, London: 2020
 <sup>16</sup> The Health Impacts of Cold Homes and Fuel Poverty – Institute of Health Equity – 2011





<sup>&</sup>lt;sup>14</sup> WHO European Review of Social determinants of health and the health divide Michael Marmot et al 2012

people dying every year from the health consequences of cold homes. One of the recommendations that came out of this review was that the NHS should be able to mandate home health checks in situations where there are indicators that housing conditions may be a contributory factor in exacerbations of health conditions.

The current focus of building regulations is on achieving minimum safety standards. It has also been suggested that these should be reviewed to ensure the adoption of best standards to enable improved health and well-being – in an effort to ensure that our homes are places which are life-enhancing and where we can live longer in good health – as Marmot described – 'adding life to years, rather than years to life'.

Marmot et al speak about the existence of a social gradient in health, and that there is a need to design policies that address all on the gradient. Their proposal is 'policies that are universal but with attention and intensity that are proportionate to need'

Ultimately the aim for everyone it to be 'living a life that you have reason to value'.

Ulster University (UU) Fuel Poverty report<sup>17</sup> claims there is a risk that because the UK climate is often described as mild or temperate, there is a general disregard for the need for homes to be thermally efficient in winter. Respectively, Ireland and the UK have the third and fourth highest incidence of excess winter mortality. It has been suggested that the housing stock is adapted for neither heat nor cold and thermally inefficient all year round. They conclude that Northern Ireland energy prices lie at the heart of fuel poverty within Northern Ireland. Whilst the adoption of gas as a fuel has become a reality for more homes within the region, there is still much room for improvement.

Looking at the impact of COVID-19 on fuel poverty and health, there is strong evidence that lockdown has disrupted the usual coping strategies of the fuel poor – people having to spend more time in a cold home, unable to escape to public places with increased thermal comfort.

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Defining Fuel Poverty in Northern Ireland - Ulster University by C Liddel et al









Reporting in April 2021, the All-Party Parliamentary Group for Longevity<sup>18</sup>, indicates the need for addressing a range of health impacts. Whilst the main thrust of their argument covers clear interventions in areas that are evidently within the health domain, they recognise the need for net-zero, decarbonising, reducing air pollution and warmer homes to feed into the levelling up health plan. One of the most pertinent comments in the report, references the need for 'seizing teachable moments'.

Writing in the British Medical Journal, reporting on their report from the University of York <sup>19</sup> in 2019, there is a quantification of the cost of prevention as opposed to the cost of treatment, measured through Quality-Adjusted Life Years (QALY). This monetary measurement is useful- prevention cost per QALY is £3,800, whereas treatment cost per QALY is £13,5000, Whilst it is informative to see the cost in terms of hard cash, it does nothing to measure the emotional benefits of prevention as opposed to treatment. However, the report concludes by referencing the Benjamin Franklin axiom that 'an ounce of prevention is worth a pound of cure' <sup>20</sup> and conclude its veracity.

<sup>&</sup>lt;sup>19</sup> Martin, Stephen, Lomas, James Richard Scott orcid.org/0000-0002-2478-7018 and Grant, University of York orcid.org/0000-0003-2002-4694 (2019) Is an ounce of prevention worth a pound of cure? : A cross-sectional study of the impact of English public health grant on mortality and morbidity. Discussion Paper. CHE Research Paper . Centre for Health Economics, University of York , York, UK.
<sup>20</sup> Martin S, Lomas J, Claxton K



Is an ounce of prevention worth a pound of cure? A cross-sectional study of the impact of English public health grant on mortality and morbidity and european UNION

<sup>&</sup>lt;sup>18</sup> All Party Parliamentary Group for Longevity- Levelling Up Health Report

HANDIHEAT BMJ Open 2020;10:e036411. doi: 10.1136/bmjopen-2019-036411

#### Health and Housing across the NPA region

#### Norway

Norway is generally recognised as providing a prosperous life for its citizens. Medical care is funded through a health insurance provision which is compulsory. A People's Pension system was established in the mid-1960s which essentially guarantees a lifestyle similar to that enjoyed throughout working life. Norway ranks in the top 10 countries in the world in terms of per capita GNP. Housing standards are excellent with a relatively young housing stock, substantially post- WWII.

Whilst home ownership is the norm – 80% of people own their home. However, there are those who are disadvantaged in the housing market, for a variety of reasons, with health difficulties being one of the quoted reasons. However, it appears that the idea of universal design has been widely adopted in the housing sector, which goes some way to ensuring that housing continues to meet the requirements of the occupier as their needs may change with time. It does appear that within Norway, the issue of unsuitable housing refers more to the nature of the housing stock for the potential occupiers, rather than 'unfit' housing. There is little evidence of negative impact on health on housing in terms that we can identify in some other regions. <sup>21</sup>

#### Sweden

In line with the other Nordic countries, Sweden has virtually consigned Fuel Poverty to the pages of history. This has been done through a combination of utilising sustainable biomass and waste, co-locating heat demanding plant near power plants, and a smart suite of solutions mixing the range of technologies including district heating grids and redistributing excess supply where it is needed. Sweden is rightly proud of their air quality and recognise that sustainable biomass is the best choice, with Stockholm leading the way in clean biomass. The district have replaced 100,000 oil and coal chimneys which did not have cleaners, with 10 large chimneys utilising cutting edge exhaust cleaning methods and continuous emissions monitoring, resulting in improvements in air quality. Combined with the reduction in some 1000 fuel delivery lorries from the roads network, the benefits are undeniable.

<sup>&</sup>lt;sup>21</sup>National strategy for housing and support services (2014-2020) – Norwegian Ministries



Northern Periphery and Arctic Programme



Sweden have also combined the complementary needs of computer servers and grocery store cooling requirements with the heating needs of residential properties.

In the context of housing, Sweden have encouraged energy efficiency by including heating costs in rent, in a large part and giving a strong incentive to the householder to invest in energy efficient measures. This leaves Sweden in the happy position of their homes being more thermally efficient than their EU counterparts. It has also contributed to fuel poverty being virtually non-existent.

In 2018, 2.3% of the Swedish population were not able to heat their homes adequately, compared to the EU average of 7.3%. Sweden addresses fuel poverty through well-developed social policies including Social Assistance. Housing Allowance addresses the financial difficulties not only for those on low incomes but also vulnerable groups, including those suffering from chronic diseases, those with disability and families including young children.

There is widespread recognition that living in a cold damp home has clear and direct impacts on the health of the occupants, resulting in poorer health outcomes and increased mortality. Public Health ', Data sources to support local services tackling health risks of cold home published in January 2019, estimate that 'excess winter deaths in the coldest quarter of housing are almost 3 times as high as in the warmest quarter'. This represents the basis on which they recommend the urgent addressing of the issues of fuel poverty. They additionally recognise that there are attitudinal aspects which need to be addressed, like stoicism and thrift, and a lack of awareness of the health impacts of living in a cold damp dwelling. Effectiveness of interventions is greatest when targeted at improving the efficiency of heating and energy efficiency. Studies in both the UK and New Zealand have shown that interventions in these two aspects of housing have the best efficacy, and go beyond reducing mortality improving mental health, reducing school absences and reducing numbers of incidences of ill health requiring attendance with medical professionals.





### **Conclusion**

Whilst within energy production, the most current driver is often the environmental impact of various solutions, it has been noted that within some of the solutions found, economic considerations have been the strongest indicator for adoption of alternative ideas. Across the board, the historic escalation of fossil fuel prices, notwithstanding the more recent stabilisation of these costs, has usually been the initial reason for seeking other solutions. It would appear that some of our partner countries have been more imaginative and progressive in their thinking than others. Furthermore, in some regions, the actions taken have been progressive and this could explain why fuel poverty is less of a problem in some regions than others.

The reality is that fuel poverty remains an issue for many households within the UK and Ireland and one that seems set to increase in the short term due to the impact of the current global pandemic and the concomitant financial precipice which has faced many people in vulnerable sectors of our economy this winter, and may well continue into the future.

The links between health and fuel poverty have been well established. The choice to either heat the home, possibly leading to debt and consequent impact on mental health being one aspect, or not heating the home and facing the risk of damp, condensation or cold all with potential damaging effects on health. The extensive ramifications for health for those who live in energy poverty continue to have a significant cost implication on the health service These potential impacts on wellbeing are twin perils facing many of our most vulnerable people and the importance of resolving these matters should be a priority for all those in a position of influence, whether that be in the context of housing or health.





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