A household is energy poor, if / when that household is unable to achieve an adequate (i.e., comfortable and safe) standard of warmth, and supply of energy services at an affordable cost. Energy poverty (also known more narrowly as ‘fuel poverty’) is a significant multidimensional socio-economic and policy challenge.

According to the Government’s most recent strategy to tackle energy poverty ‘A Strategy to Combat Energy Poverty 2016-2019’ up to 28% of households in Ireland are in or at risk of energy poverty (equivalent to 475,000 households in 2016). More recent research published by the Economic and Social Research Institute (ESRI) in October 2020 ‘Carbon Taxes, Poverty and Compensation Options’ estimates a measure of ‘core’ energy poverty at 17.5% of households (approximately 297,500 households). Furthermore, another measurement, provided by the Survey on Income and Living Conditions (SILC) indicates that the proportion of people who report being unable to afford to keep their home adequately warm has fallen from 9% in 2015 to 4.9% in 2019.

Figure 1: Three estimates of the number (and %) of households suffering from / at risk of energy poverty

Tackling energy poverty

As evidenced above, measuring and defining energy poverty has proved a significant challenge. Tackling the sources of energy poverty is a key policy goal internationally. There are three broad approaches for tackling energy poverty:

1. Reducing demand for energy by improving energy efficiency i.e., by providing State grants via the Sustainable Energy Authority of Ireland (SEAI) for retrofitting, etc.
2. Income supports in the form of transfer payments (e.g., the Fuel Allowance) and subsidising energy bills (e.g., the energy components of the Household Benefits Package); and
3. Consumer protection measures including the development of codes of practice and the setting out of customer rights by the independent regulator – the Commission for Regulation of Utilities (CRU).
Recent research
In recent years, several prominent academic research publications (and summaries) on this topic specific to Ireland / Irish data have been published which may be of interest to readers:


Introduction and background
Energy poverty is a persistent and complex social, environmental, and political phenomenon and is not unique to Ireland. A household is energy poor, if / when that household is unable to achieve an adequate (i.e. comfortable and safe) standard of warmth, and supply of energy services at an affordable cost.

Levels of energy poverty
According to a November 2015 bottom-up analysis underpinning ‘A Strategy to Combat Energy Poverty 2016-2019’ (the Government’s most recent strategy to specifically tackle energy poverty) up to 28% of households in Ireland are in or at risk of energy poverty (equivalent to 475,000 households) and 50 million households in the European Union and UK (22.5% of the total). More recent research published by the Economic and Social Research Institute (ESRI) in October 2020 estimates a measure of ‘core’ energy poverty and revises this headline figure to 17.5% of households (approximately 297,500 households). Furthermore, another measurement, provided by the Survey on Income and Living Conditions (SILC) indicates that the proportion of people who report being unable to afford to keep their home adequately warm has fallen from 9% in 2015 to 4.9% in 2019. As indicated by this range of estimates, discerning a true picture of energy poverty in Ireland is complex. There are significant definitional and measurement problems due to debates over the appropriateness and robustness of certain measures.

Causes and impact of energy poverty
Undeniably, energy poverty has significant implications for a household’s quality of life, as well as physical and mental health and is considered a standalone indicator of deprivation distinct from poverty in general. The causes of energy poverty are generally attributed to three key factors: the characteristics of a dwelling (including appliances), the cost of energy (price) and the consumption habits or needs of the household. However, these causative factors are influenced by a board range of household characteristics and drivers, including:

- The average weekly household disposable income.
- The cost of energy (heating and electricity).
- The general cost of living (including food prices).
- The size of the dwelling.
- The energy efficiency rating of the dwelling / quality of home construction and insulation.
The number of occupants.
- The health / medical needs of the occupants.
- The frequency of occupation, and
- The age of the primary household occupants.

Consequently, different households will have different needs and will therefore be more or less vulnerable to fluctuations in their capacity to afford their basic household energy requirement. Overall, the prevalence of energy poverty is typically considered to be a direct consequence of three primary factors:

- A comparatively low level of household or personal income.
- Household energy costs (electricity and heating), and
- Energy efficiency of a home.

Energy poverty disproportionately affects low or fixed-income households, particularly those in receipt of State payments. Current levels are also further exacerbated by demographic factors such as age, health, and energy needs. It also impacts significantly and negatively upon social inclusion and cohesion, well-being and mental / physical health as the energy poor population is statistically more likely to report poor health and emotional well-being than the non-energy poor population. Future levels of energy poverty in Ireland are likely to be uniquely exacerbated by several domestic factors which may increase the vulnerability of ‘at risk’ groups, including:

- **Ireland’s changing energy context** and the prospective increase in indoor air pollutants resulting from incomplete combustion of wood-based fuels”.

- **Ireland’s transition to a low-carbon economy** whereby the use of fossil fuels in the primary energy mix is switched to renewable alternatives.

- **Ireland’s existing commitments** to renewable energy efficiency targets and climate action responsibilities following the publication of the Government’s *Climate Action Plan 2021*.

- **Carbon taxation.**

- Changing demographics and ageing; and

- A return to typical levels of **Ireland’s import dependency** (as reserves from the Corrib gas field become depleted).

Producing an effective measure of energy poverty is further complicated by the ongoing debate over the distinctiveness of energy poverty as a separate form of deprivation due to the strong correlation between energy poverty and basic deprivation / poverty in general. Energy poverty is therefore like other forms of poverty and social exclusion in that it stems from a combination of complex, interlinked institutional and structural challenges.

**Defining and measuring energy poverty**

A number of approaches have been used to measure the level of energy poverty in Ireland e.g. the **income-based approach** (based on calculating energy expenditure as a proportion of disposable income), **subjective approach** (based on a self-reported survey) and **objective approach** (based on comparing necessary or normative energy expenditure to disposable household income). These approaches, based on how one defines energy poverty, are different and yield different results, including that a household may qualify as experiencing energy poverty under one definition but not under another. Therefore, the final determination of the extent of energy poverty is highly sensitive to the definition chosen. The lack of a universally accepted definition, particularly to compare the phenomenon across countries, is a significant problem though efforts in recent years have attempted to resolve this. Studies broadly identify several primary indicators of energy...
poverty with a focus on measures of deprivation or vulnerability to energy poverty i.e., objective measures such as high levels of energy expenditure relative to disposable income, low average daily inside temperature of a dwelling, frequency of arrears on energy bills and subjective (self-reported) measures such as a household identifying itself as being without adequate heat/lighting for a period. There are also weighted, composite measures which are a mixture of the above. These definitions are:

- The standard **expenditure method** (the Boardman definition) which refers to a threshold for energy affordability of 10% of weekly household disposable income being spent on energy costs (electricity and heating).
- The **subjective (self-reported) method** relies on survey data which asks households about relative experiences of, or relevant to, indicators linked to energy poverty, and/or
- The **objective (factual) method** looks at what proportion of its income a household would have to spend to heat the home to World Health Organization (WHO) standards based on factual characteristics of conditions of the dwelling, temperature, etc.

<table>
<thead>
<tr>
<th>Methodologies</th>
<th>Explanation</th>
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<tbody>
<tr>
<td><strong>Expenditure method</strong></td>
<td>Calculates the proportion of household income (net of housing costs) that is devoted to meeting energy (e.g., heating/lighting) needs. If a household spends more than 10% of their income on energy, they are considered to be in energy poverty, with the severity of energy poverty increasing as the proportion of income spent on energy increases to 15% (classified as severe poverty) and 20% (extreme poverty). The expenditure method was adopted in 2011 on a preliminary basis.</td>
</tr>
<tr>
<td><strong>Subjective method</strong></td>
<td>Conducts a household survey determining whether respondents identify where they have had to do without heating or whether they lived in an inadequately heated home, in their opinion, e.g., certain questions asked in the EU-wide Survey on Income and Living Conditions (SILC) carried out by the CSO for Ireland.</td>
</tr>
<tr>
<td><strong>Objective method</strong></td>
<td>Calculate, via a normative assessment model, what a typical household has to spend on energy costs to keep their home heated to a basic standard as per World Health Organization (WHO) recommended norms compared to household income to determine household exposure to energy poverty. Such a model requires appropriate dwelling temperature measures and fuel tariff data.</td>
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</table>

‘Fuel poverty’ or ‘energy poverty’?

Academia and national strategies interchangeably refer to both ‘fuel poverty’ and ‘energy poverty’. In policy and across academic research there are multiple and diverse definitions of energy poverty and these definitions have changed over time. It is useful to introduce conceptual clarity about the difference between them. Generally, the term ‘fuel poverty’ is associated with the costs of heating, and therefore refers to an inability of a household to adequately heat the home or keep a home heated to a minimal, acceptable standard. ‘Energy poverty’ is a broader concept encompassing all energy needs of a household, including but not limited to heating, and will extend to lighting and cooling (in the summer). For example, a 2013 European study of fuel poverty, refers to these multiple definitions, concluding that:

“Any definition of fuel poverty is a complex combination of who and why, dictated by political, policy and practical concerns. Thus, variations exist in the way fuel poverty is defined and the contexts within which it is sometimes interchangeably used with the term energy poverty or distinguished from it.”
In this Note, we prefer the term ‘energy poverty’ as it more fully captures the challenges facing low-income households and reflects that households experiencing such poverty do so for several reasons, not just limited to income.

**Tackling energy poverty**

Tackling energy poverty is a significant societal and policy challenge and is of interest to policymakers. The Irish Government has (so far) published two multiannual energy poverty strategies to date (in 2011 and 2015) with a review of the latter expected shortly. Both strategies contain several alleviation measures with a particular focus on improving the energy efficiency of ‘at risk’ homes to target those sufferers of chronic health conditions. However, Government expenditure has historically focused on direct income supports through the National Fuel Scheme (Fuel Allowance) or the energy components of the Household Benefits Package (Gas Allowance or Electricity Allowance). This has been described as “limited” due to the persistently high incidence of energy poverty levels in Ireland (Society of St. Vincent de Paul, 2019). As such, and as concluded by the March 2019 Joint Committee on Climate Action report, effectively dealing with the problem requires a multi-faceted set of policy responses. Recently, there is a marked shift however, toward improving the energy efficiency of Ireland’s housing stock, with a particular focus on homes most at risk (or in) energy poverty. The Government’s Climate Action Plan 2021 (“Securing Our Future”), published in November 2021, underscores and supplements existing commitments under the National Development Plan committing the Government to a multi-annual (9-year) €12.9 billion ‘National Retrofit Plan’ to 2030 funded by carbon tax revenue with €2 billion in annual funding by 2030.

Policy coherence also remains a challenge as certain policies may unintentionally exacerbate the problem. For example, debate in Ireland has recently focused on the potential clash between meeting Ireland’s climate action commitments and CO₂ emission targets through levying additional carbon taxes, and policies aimed at tackling energy poverty (and poverty in general). However, one ESRI study has suggested that, in some scenarios, the net effect on vulnerable households can be minimalised or eliminated entirely with effective recycling of carbon tax revenue via the tax and welfare system (Tovar Reaños and Lynch, 2019).

This Note aims to describe and analyse the distinct and persistent nature of energy poverty in Ireland. This topic is particularly complex with many facets which cannot feasibly be addressed in one short paper. It is not the intention of the authors that this paper represent an exhaustive treatment, but rather briefly summarise the topic as a contribution to the ongoing debate around Ireland’s energy transition away from fossil fuels, Ireland’s existing climate commitments, and the ongoing prevalence of energy-related forms of deprivation.
Consequences of energy poverty

Energy poverty is a distinct, complex and multifaceted phenomenon. Its impacts on individuals, households and society are equally complex. As interest in, and discussion of, energy poverty has increased over the last two decades, so too has understanding of the social, political, economic and environmental consequences of certain vulnerable people and households being unable to afford to meet their energy needs.

It is well established that certain groups are more vulnerable to energy poverty and its consequences. This may be because they are poorer and have limited capacity to meet their energy costs, particularly in a fluctuating market reliant on imported fuels, or because they have increased energy needs, or both of these factors combined. Groups that are most frequently identified as vulnerable are low-income households (particularly larger households), lone parents, older people, children, and people with disabilities. Migrant and ethnic minorities also face additional risks. In Ireland, members of the Traveller and Roma communities frequently experience inadequate accommodation, which has been shown to impact on health and well-being and social inclusion. A prominent 2019 study on the prevalence of energy poverty among Travellers addresses energy poverty experiences by Travellers living in mobile homes and trailers where such poverty is particularly acute. This study found that a Traveller living in such accommodation experiences significantly higher fuel costs, struggles to meet those costs, and cannot afford to improve the efficiency of their homes, a situation which is exacerbated by lack of resources and financial exclusion, and the sub-standard / inefficient nature of such Traveller accommodation. These factors result in significant health and safety risks for Traveller families. The report recommends that the State undertake specific and targeted measures to support affordability for Travellers who wish to live in culturally appropriate accommodation.

Being unable to meet energy needs has a broad range of impacts on these individuals and households. The consequences of energy poverty can be described as impacting on people in three broad ways:

- **Health and wellbeing.**
- **Social inclusion and social cohesion;** and
- **Housing tenure.**

These will now be explored briefly in turn.

Health and well being

Energy poverty has been shown to be both a consequence and cause of poor health outcomes. There is evidence of a link between being energy poor and ill health. According to Thomson et al (2017):

“The energy poor population is statistically more likely to report poor health and emotional well-being than the non-energy poor population, with a higher incidence of bad and very bad SRH [self-reported health], poor emotional well-being, and likely depression.”

In Ireland, and globally, there is evidence of cold-related deaths in the winters, and such deaths are experienced in higher numbers by older people. Excess winter deaths are defined as those which take place in winter in excess of the deaths in the preceding and following four-month seasons. According to a WHO report, there are about a quarter of a million excess deaths each
A study of excess winter deaths on the island of Ireland found that Ireland has relatively high levels of winter deaths, and the impact of cold weather on death rates lasts 35 days in the Republic and 28 days in Northern Ireland. The authors concluded that there is:

“...strong associations between exposure to cold weather temperatures and mortality…. A very strong relationship has been observed between the incidence of fuel poverty, social class, geographic and demographic patterns of those most susceptible on the island of Ireland”.

A 2013 study which used St. James Hospital’s patient database found an increase in admission of older people with hypothermia when the outdoor temperatures dropped. Similarly, a UK-based study found that heating and insulation improvements were associated with increased life expectancy of 10 days for men and 7 days for women, and that warmer homes result in lower levels of anxiety and depression.

Additionally, while much of the attention has been on warmth, there is increasing focus on the effects of inability to reduce indoor temperatures in the summer. According to the European Environment Agency, increasing temperatures are likely to increase the number of heat related deaths, and they estimate that “mortality risk increases by between 0.2 and 5.5% for every 1 degree increase in temperature above a location-specific threshold”. While Ireland does not face the same challenges as some other countries in terms of managing heat, nonetheless hotter summers are likely to impact health outcomes, particularly for vulnerable groups, and will further deepen the energy needs of these groups. Hence, academics Maxim and colleagues argue that “any assessment of the energy needs for households should also take into consideration the cost of keeping homes cool during the summer.”

The negative health consequences of energy poverty extend well beyond death. Low indoor temperatures have been shown to have a significant detrimental effect in terms of health. Colder indoor temperature place thermal stress on the body and can affect the immune system, and the blood and cardiovascular system. In addition, cold houses generate mould and damp, and dust mites, which can affect respiratory and allergic conditions. In a review of Irish research on fuel poverty, O’Meara concludes that, “there are significant effects on the health of households living in fuel poverty, particularly in terms of respiratory illnesses such as asthma, as well as mental health and susceptibility to illness”. In addition to the causative health effects of low indoor temperatures, those who are ill often experience additional energy needs. When people are sick they are likely to be indoors more of the time and may well have increased energy needs. For example, in a 2015 UK study of the energy needs of people with disabilities one male respondent recounted that:

“One of the symptoms of the cancer I have is a hormone imbalance which produces hot, sweaty flushes. That’s not helped by the morphine, so the biggest thing I use is the water-cooled air conditioner unit in the bedroom”.

Several studies address the impact of energy poverty on the health of families with children, including evidence that in energy-poor families, parents are more likely to suffer depression while children experience reduced calorie intake, poorer health and developmental outcomes, and are hospitalised more often.
Alongside physiological vulnerabilities, several studies reveal the education and mental health difficulties that energy poor families with children experience. For example:

- An ESRI study\(^4^0\) from February 2021 on the impact of household energy poverty on the mental health of parents of young children found that the **likelihood of maternal and paternal depression was higher in households characterised by energy poverty.**
- A New Zealand study of the impact of retrofitting on low-income households (referenced in O’Meara, 2015\(^4^1\)) found that there was a **reduction of 15% in days off school which was attributed to a reduction in respiratory illnesses.**
- A 2019 UK-based study\(^4^2\) also found **decreases in respiratory illnesses in children whose families received winter fuel supplement,** and that children under three had a higher weight and lower nutritional risk. Studies have also linked mental health difficulties in adolescents to homes that lacked affordable warmth, including the impact of spatial sharing (due to heating just one part of the house) and overcrowding.
- A 2016 participatory research project\(^4^3\) of young people in New Zealand documenting the connection between fuel poverty on young people includes a quote from one young person who recalled that they get **“stressed that it is too cold in my room to do homework or study.”**

In general, the prevalence of poor health among the energy poor population is significantly more acute than the non-energy poverty population, as illustrated by Figure 2.

**Figure 2: Prevalence of poor health in the energy poor population versus non-energy poor population in 32 countries (2016 data)**

![Graph showing prevalence of poor health in energy poor vs non-energy poor population](source: Thomson et al., 2017.)

Overall, there are clear associations between energy poverty and poor health. Energy poverty is a cause and aggrator of poor health, and poor health can lead to or exacerbate energy poverty. The health effects of energy poverty are increasingly driving policy responses in Ireland and across the EU.
Social inclusion and social cohesion

The increased financial pressure of energy costs (i.e., electricity and heating costs) and consequent energy poverty can act to compound situations of social exclusion and inequality. Access to affordable energy is critical to living and participating in modern society, and as we have seen health effects of energy poverty can undermine opportunities for education. In addition, to the impacts of the health consequences of energy poverty, being unable to adequately warm your home can reduce social engagement and can lead to reluctance to have visitors or engage socially, further exacerbating exclusion.44

In addition to the social exclusion consequences of energy poverty, in recent years energy (particularly fuel) prices have been linked to growing social unrest and threats to social cohesion. This illustrates the difficulty governments face in achieving environmental and climate targets as countries transit to low-carbon economies in a fair and equitable way to avoid increasing inequality. For example, high energy or fuel prices have sparked unrest and demonstrations in several countries, including Bulgaria (2013), Armenia (2015), Macedonia (2015), as well as the more prominent ‘Yellow Vest’ protests in France (2018) and the Insulate Britain protests in the UK (2021). In addition to the social and political unrest associated with fuel prices, there is also evidence that energy poverty drives people towards illegal or ‘semi-legal’ sources of fuel, and that burning low quality fuels can impact both health and environmental quality.

Housing tenure

Across the lifecycle stages, energy poverty interacts with and is compounded by housing tenure. Very often, those who are energy poor cannot afford to invest in their homes, and therefore have no option but to continue to absorb high fuel costs. Filčák and Živčič call this the ‘paradox of energy poverty’; poorer households actually end up paying more for their energy than better off households because they live in poorer quality housing and are unable to invest in energy-saving measures.45 As we have seen, vulnerable groups (e.g. retirees) may also have increased energy demands because they spend more time at home during the day (pre-Covid, of course), and are therefore more exposed to fluctuations in energy (electricity and heating) prices. In particular, poorer households living in social housing, the private rented sector (PRS), as well as privately owned housing have been shown to face specific difficulties associated with energy poverty. This diversity of housing tenure may require specific policy responses. Arguably, some responses (e.g., income supports such as the Fuel Allowance and/or the monthly energy allowances (gas or electricity) in the Household Benefits Package received by low-income households) could actually reduce the incentive to invest.

Several studies reveal that energy poverty is more strongly associated with social housing, primarily due to the low income of such households46 though not necessary to do with the quality of social housing.47 The situation of social housing raises a number of specific issues but primarily residents will not have the economic capacity to undertake retrofitting themselves, and as they are not the owners of the dwelling they may not benefit from any investment in the longer term. Social housing has been a focus of several studies on the impact of energy poverty interventions. Solutions include retrofitting, but existing practice suggests that even large-scale investment in retrofitting may not be sufficient.
As a study of social housing in Zaragoza in Spain concluded:

“rehabilitation of the building is often not enough to solve the problem, as other factors such as the energy-consumption habits of household members, the socio-economic profile of the household, the characteristics of energy installations, and the cost of energy supply also play a part.”

An Irish study by Coyne et al., did however confirm that those living in upgraded homes were less likely to go without heating due to affordability concerns though the study noted “this may reflect more generally improved economic circumstances over the course of the trial”. The same study, referring to controlled trials in the United States and the Netherlands, notes that actual energy savings are often overstated compared to predictions though energy savings are made. The study also notes that it could not measure the health effect of upgrades or confirm whether internal temperatures improved.

In general, retrofitting is considered a preferred solution over the replacement of social housing. However, the costs of retrofitting present a significant barrier to overcoming energy poverty. While retrofit programmes will reduce carbon emissions and energy costs to some degree which positively impacts on health and wellbeing of householders, the bigger challenge is addressing habitual household energy consumption. One initiative is the European Network for Research, Good Practice and Innovation for Sustainable Energy (ENERGISE) which focuses explicitly on changing energy consumption behaviour which, according to the project, is described as a:

“Key ingredient in successful energy transitions. Individual energy consumption is a function of who we are, where we come from, and the socio-cultural and material contexts in which we live. Societal norms and routines with regard to work, education, family life, consumption and recreation greatly determine our patterns of energy use as well as our ability and/or willingness to change those patterns. Without a comprehensive understanding of these energy cultures, public policy measures to reduce energy consumption at the individual or household levels are likely to fail.”

Similarly, in the private rented sector, low-income households often live in lower quality accommodation, and have neither the means nor the incentive to invest in energy efficiency. A study of the experience of people with disabilities in the Private Rented Sector concluded that:

“One reason for the high fuel poverty rates in the PRS [Private Rented Sector] may relate to the combination of the age and condition of the housing stock (leading to poor energy efficiency) and increased likelihood of poverty among disabled people. Within this research several agencies noted barriers to installing energy efficiency measures in the PRS including: associated costs such as replastering and decorating, remedial works before energy efficiency measures can be put in, and an unwillingness on the part of landlords to install heating systems that rely on gas (given the risks and additional layer of safety requirements).”

According to a 2011 study, funded by The Centre for Ageing Research and Development in Ireland (CARDI), older people face a dual budget in term of energy poverty, in that they are more likely to experience such poverty in the first instance, and are also more likely to suffer negative consequence in terms of health and social harm. The majority of older people live in their own home, and these homes tend to be older properties, and this report found that older people are less likely to have attic or wall insulation or double glazing.

Part of this study included an analysis of 722 questionnaires completed by older people which found that 24.1% of older people described their house as ‘too cold’ and more than two-thirds were
worried about the price of heating their home. Half of respondents said that they went without necessities such as food and clothing in order to pay for heat in the winter period. 53 One respondent in this study said that:

“*In the winter my kitchen and dining room are as cold as fridges. I don’t think the walls are insulated. The window frames are metal and they retain the cold. It is nearly impossible to go into these rooms because of the cold. My daughter had to buy me a Kosangs fire and I use this with my normal storage heaters. The cylinders are expensive.*”

Internationally, several studies of the experience of low-income older households support the finding that older people will sacrifice other costs, including food, to heat their homes during winter.55

In summary, energy poverty impacts on the lives of people and households in multiple ways. Energy poverty has been shown to have detrimental impacts on physical and mental health; undermines social inclusion and social cohesion; and impacts those in social housing and those low-income households in the private rented market and those in older private housing. It is now well established that vulnerable groups particularly experience energy poverty both because they are exposed to increasing costs and because they may have higher energy needs. Given the significance of energy poverty on people and households, in recent decades a broad range of policy measures have emerged, in Ireland and in the EU, which have sought to address and tackle energy poverty.

**Tacking energy poverty (background)**

The persistent levels of energy poverty have become an increasingly topical issue internationally, particularly as countries undertake their transition to low-carbon economies and societies. It is widely acknowledged that the costs of adapting to climate change and decarbonisation can have a disproportional impact on the poorest and most vulnerable people and communities.

Historically poorer communities have been at the cold face of major social and economic transitions, including energy transitions, and the current reconfiguration of energy markets and the energy profession is not likely to be any different.56 Any transition will leave behind certain groups of stakeholders, and the debate on energy poverty is an important one in the context of a transition away from an economy and society dominated by fossil fuels.

Internationally, there are three broad approaches for tackling energy poverty:

- Reducing demand for energy by **improving energy efficiency** (i.e., through retrofitting, etc.).
- **Income / fiscal supports** (in the form of transfer payments and subsidising energy bills); and
- **Price regulation / consumer protection** (to control energy costs).

**EU level**

In recent years, a diverse range of initiatives have emerged at EU level and in individual EU Member States aimed at tacking energy poverty. The first reference at EU level to “fuel poverty” was in 2001 as recorded by the European Coal and Steel Community Consultative Committee in an Opinion document, as follows:

“In adopting appropriate measures to encourage improved energy efficiency by the domestic sector, the EU and its Member States should avoid any measures that risk exacerbating fuel poverty”.

"In the winter my kitchen and dining room are as cold as fridges. I don't think the walls are insulated. The window frames are metal and they retain the cold. It is nearly impossible to go into these rooms because of the cold. My daughter had to buy me a Kosangs fire and I use this with my normal storage heaters. The cylinders are expensive."
'Energy poverty’ as a term was first used by the European Commission (EC) in a Communication concerning energy cooperation with developing countries, which noted:

“Apart from the absolute priority of guaranteeing access to adequate energy services for the “-energy poor”, demand-side cooperation is undoubtedly the most promising avenue of approach, since improving energy efficiency is a crucial area that has to a large extent not been exploited so far in the developing countries”

Other significant developments include the launching of the EU Energy Poverty Observatory (EPOV) in 2018. The EPOV defines 28 primary and secondary indicators.

Most recently, the 2019 ‘Clean Energy for all Europeans’ package was introduced to support the on-going implementation of the 2015 Energy Union Strategy and includes eight different legislative acts, several of which include provisions relevant to energy poverty, including:

- **Electricity Directive** which introduces a requirement on Member States to define a set of criteria to measure, monitor and report on energy poverty.
- **Energy Performance in Buildings Directive** which requires Member States to establish a long-term renovation strategy for their national stock which shall outline relevant national actions to alleviate energy poverty.
- **Energy Efficiency Directive** which requires Member States to focus a share of their energy efficiency measures for households in energy poverty, and
- **Energy Union Governance Regulation** which requires Member States to have due regard to energy poverty in their integrated national energy and climate plans. The Governance Regulation also obliges the Commission to share data communicated by Member States with the European Energy Poverty Observatory.

The overall objective of the Clean Energy package is to set new energy efficiency targets (32.5% by 2030), increase the diversification of the energy supply to include a greater proportion of renewables and greater energy security (reducing reliance on fossil fuels imported from outside a Member State, or outside the EU), and to tackle existing market, behavioural and regulatory barriers to reduce energy bills, therefore alleviating energy poverty.

While energy poverty is a recognised energy policy issue, it requires individual EU Member States to identify and protect vulnerable households to effectively and coherently address the problem. As indicated above, the focus for the Commission is prioritising energy efficiency to protect energy poor and vulnerable consumers. This contrasts with Ireland where the most widespread strategy continues to be to provide income supports to vulnerable households.

**National level**

Responsibility for the policy response to energy poverty in Ireland lies with the Department of Communications, Climate Action and Environment. The modern Government response to tackling energy poverty in Ireland comprises (primarily) of direct income supports to address energy affordability concerns (e.g., the Fuel Allowance) and home energy efficiency upgrades to increase the efficiency of the existing housing stock to reduce heating loss and energy use (and therefore overall household energy costs). Both responses therefore aim to address energy affordability in different ways. While direct income supports remain the measure which have the broadest reach, increasing focus in recent times has been placed on improving the energy / thermal efficiency of the housing stock through various programmes including improvement / retrofitting grants through full and partial subsidisation depending on vulnerability.
The following is a non-exhaustive summary of national strategies which refer to energy poverty:

### Table 2: National strategies referring to energy poverty (overall)

<table>
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<tr>
<th>Publication date</th>
<th>Strategy /Policy Paper</th>
<th>Key detail(s)</th>
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| March 2007       | Delivering a sustainable energy future for Ireland – The Energy Policy Framework (2007-2020) [White Paper] (Department of Communications, Energy and Natural Resources, DCENR) | ▪ Recognised that social welfare payments and allowances are one part of the solution but that “more needs to be done in this area and this social aspect of energy policy is a key Government concern”.  
▪ Commits that “all energy suppliers will continue to work with Departments and Agencies to systematically address Energy Efficiency and Affordability challenges for vulnerable members of Irish society”.  
▪ Identifies a series of other actions including capital investment in the housing stock, inter-agency cooperation, and research initiatives. |
▪ Included a significant number of priority actions (48) under the following headings: thermal efficiency measures, non-regulated energy suppliers, data and information, communication and referrals, coordination, reporting and measurement, and research.  
▪ Strategy informed by an Inter-Departmental Group on Affordable Energy (IDGAE). |
| May 2014         | Green Paper on Energy policy in Ireland (DCENR)                                        | ▪ Includes an explicit commitment, under Priority 1: Empowering Energy Citizens to protecting vulnerable energy citizens with a focus on energy affordability, income support, regulatory protection. |
| December 2015    | Ireland’s Transition to a Low Carbon Energy Future [White Paper] (DCENR)               | ▪ Sets out the Government’s framework to guide policy and the actions that Government intends to take in the energy sector to 2030.  
▪ Under Chapter 8 ‘Energy Costs’, the Paper includes the following commitments:  
  o We will ensure that adequate safeguards are in place to protect people at risk of energy poverty;  
  o A new National Affordable Energy Strategy, to be published in early 2016, will contain a new methodology for measuring and reporting energy poverty, actions to improve energy efficiency in the rental sector, measures to ensure better quality services to energy customers and a new pilot scheme for deep energy upgrades for people suffering from certain chronic health conditions. |
| February 2016    | Updated National Action Plan for Social Inclusion 2015-2017 (Department of Social Protection, DSP) | ▪ Referring to energy affordability, the Plan commits to:  
  o Identify an appropriate energy poverty methodology and the data tools necessary to estimate and track energy poverty levels  
  o Reform existing efficiency programmes or develop new programmes as the best way of addressing energy poverty in the long term, as part of a new national affordable energy strategy. |
### February 2016

**Strategy to Combat Energy Poverty in Ireland**
(DCENR)

- The successor strategy to the 2011 Affordable Energy Strategy ‘Warmer Homes’.
- Includes 9 new actions / commitments including:
  - €20m in funding for a 3-year pilot energy efficiency scheme targeting those suffering from acute health conditions living in poorly insulated homes.
  - Expansion of eligibility criteria for existing energy efficiency schemes.
  - Piloting of new €20m community-led approaches through Better Energy Communities Scheme (administered by the Sustainable Energy Authority of Ireland, SEAI).
  - DCENR working with the Department of the Environment will undertake a public consultation on the implementation of minimum energy efficiency standards for rental accommodation.
  - Annual updates on energy poverty by the relevant Ministers will be presented to the Cabinet Committee on Social Policy and Public Service Reform.

### June 2020

**National Energy and Climate Plan 2021-2030**
(Department of Communications, Climate Action and Environment, DCCAE)

- Sections 2.4.4 and 3.4.4 of the NECP refer to energy poverty and, in particular, to national objectives, including a timeframe. The following points are mentioned:
  - Ireland has an overall target to reduce consistent poverty to 2% (or less) by 2020, and to lift at least 200,000 people out of ‘combined poverty’ between 2010 and 2020.
  - Policies and measures to protect energy poor consumers are additional provided for under the (2016-2019) Strategy to Combat Energy Poverty in Ireland (above) which includes hosting upgrade energy efficiency measures and social protection measures / income supports.
  - The NECP notes that the Strategy is due to be renewed after 2019.

### November 2021

**Climate Action Plan 2021**
(DCCAE)

Includes references to tackling energy poverty under ‘Our Commitment on Carbon Taxation’ (re ringfencing of revenue to fund the national retrofitting programme with a particular emphasis on low-income households vulnerable to energy poverty. The Plan (again) restates the commitment to review the 2016-2019 Strategy to Combat Energy Poverty ahead of the publication of a new Strategy, and to publish the findings of the Warmth and Wellbeing Study.)
Tackling energy poverty (measures)

There are currently three main tranches of measures in place:

- **Housing (energy efficiency) upgrade** measures.
- **Fiscal / income support** measures, and
- **Consumer protection** measures.

These will now be briefly examined.

**Housing (energy efficiency) upgrade measures**

Heating and building operations (respectively) represent a significant proportion of Ireland’s energy consumption. The EU target is to achieve a 32.5% improvement in energy efficiency by 2030. To achieve this, the stated Government commitments in relation to housing are as follows:

- **[Heating]** To complete phase 2 of the social housing retrofit programme to bring homes more than 40 years old (30% of the social housing stock) to a B2-equivalent Building Energy Rating (BER).
- **[Building]** To retrofit 500,000 homes to a B2 BER or cost optimal (or carbon) equivalent by 2030.

These commitments require the establishment of new ‘Retrofit Delivery Framework’ by Government, with the Sustainable Energy Authority of Ireland (SEAI) including the building of an effective supply chain and a model for aggregate where home retrofits are grouped to allow the proposed activity to be sufficiently funded and delivered, as well the provision of training / upskilling of existing contractors (etc.) to provide deep retrofitting. Other initiatives include Home Energy Savings Kits to better promote understanding of energy usage at home.

Commitments on retrofitting are outlined in the Government’s National Energy & Climate Plan 2021-2030 (published in June 2020) and the separate Climate Action Plan 2021 (published in November 2021) [see next section]. Overall, it is estimated that between 2019 and 2015, 185,000 home energy upgrades will be delivered annually with over 83,000 of these to a B2/cost optimal level (or 120,000 including carbon savings from non-B2 upgrades). This compares to a total of 18,400 retrofits completed in 2020 (4,000 to a B2 standard).\(^5\) To achieve this, the National Development Plan (NDP) has allocated a minimum of **€12.9 billion** to 2030 with the following annual allocations:

**Figure 3: Exchequer funding allocations for retrofitting under the National Development Plan (NDP) - €mil**

![Figure 3: Exchequer funding allocations for retrofitting under the National Development Plan (NDP) - €mil](image)

**Role of the SEAI and SEAI schemes (overview)**

The Sustainable Energy Authority of Ireland (SEAI) has a key role in Ireland’s transition to a decarbonised society based on sustainable energy structures, technologies and practices. Funded by the Department of the Environment, Climate and Communications (DECC), the SEAI administers several grants schemes to improve the energy efficiency of a home. Schemes are available to all households but there are also targeted supports for those households enduring or most at risk of energy poverty. According to the Minister for the Environment, Climate and Communications, Eamon Ryan T.D., since 2000 (to June 2021) around **450,000 homeowners** have upgraded their homes with support from SEAI schemes.⁵⁸ SEAI schemes (current and former) include:

- **The Communities Energy Grant Scheme** (formerly the Better Energy Communities Scheme) is the SEAI’s national retrofit initiative and administers grant funding to community-based partnerships which aim of improving the energy efficiency of the building stock in a particular area (each project must include homes at risk of energy poverty).

- **Free Energy Upgrades** (formerly the Better Energy Warmer Homes Scheme (BEWHS or WHS) which focuses on delivering energy efficiency measures free of charge to lower income homeowners vulnerable to energy poverty and are in receipt of certain welfare payments. The scheme targets homes with low BER ratings and prioritises homes built and occupied before 1993 and have pre-works BER ratings of E, F or G.

- **Individual Home Energy Upgrade Grants** (formerly the Better Energy Homes Scheme) which aims to improve energy efficiency by providing grant support for energy efficiency upgrades to homeowners (including landlords) whose homes were built and occupied prior to 2011 for insulation and heating control systems and 2021 for heat pump and renewable systems.

- **The National Home Energy Upgrade Scheme** which provides grants to bring homes up to a BER rating of B2 or above.

- **The Sustainable Energy Communities (SEC) Programme** to support the low carbon energy transition by developing skills and capacity, at a community level, in determining how to use less energy, adopting lower carbon options for transport and heating, shifting energy use to off-peak times or investing in smart technologies.

As noted above, the SEAI grant schemes have been revised to reflect their explicit purposes. Broadly, as of 2022, the schemes are divided into **three categories**:

1. **Free Energy Upgrades** (100% funded home upgrade grants)
2. **Individual Energy Upgrade Grants** (up to 80% funded home energy upgrades, partial funding), and
3. **One Stop Shop Service** (up to 50% cost, partial funding).

An informative **Social Impact Assessment** on SEAI schemes (with an emphasis on the first two schemes above) was published by the Irish Government Economic Evaluation Service (IGEES) in 2020 using data from 2010-2019.
Fiscal / income support measures

Fiscal measures (direct income supports) employed as policy responses to tackling energy poverty are in the form of the means-tested Fuel Allowance scheme and through the means-tested energy components of the Household Benefits Package (HBP). These are summarised below:

### Table 3: Fiscal measures / income supports – an overview

<table>
<thead>
<tr>
<th>Scheme</th>
<th>Detail</th>
<th>Rate</th>
<th>Recipients</th>
<th>Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Fuel Scheme / Fuel Allowance</td>
<td>The Fuel Allowance is paid to each eligible household to subsidise energy expenditure during the fuel season (28 weeks between late-September/early-October to April). It is a means tested payment paid to recipients of long-term social welfare payments.</td>
<td>As of 2022, the payment is €33.00 per week for 28 weeks (or two lump sum payments).</td>
<td>375,269 (2020)</td>
<td>€290.45m (2020)</td>
</tr>
<tr>
<td>Household Benefits Package (energy component)</td>
<td>The HBP (energy component) provides support to eligible households by providing monthly allowances for either electricity or natural gas. Eligible persons are all those over 70 years of age, but also younger persons where eligibility criteria are satisfied (such as the receipt of state pension, living alone allowance, receipt of disability or invalidity payment). It is a means tested payment paid by the Department of Employment Affairs and Social Protection.</td>
<td>€35.00 per month (credited to utility bill, or cash payment)</td>
<td>465,635 (2020)</td>
<td>€193.33m (2020)</td>
</tr>
</tbody>
</table>

In 2020, the Fuel Allowance was paid to 22% of households (375,269) and 27% (465,635) received either the Electricity Allowance or Gas Allowance provided under the Household Benefits Package. As Figure 4 illustrates, these levels have remained stable in recent years.

Figure 4: The proportion of households in receipt of the Fuel Allowance compared to Household Benefits Package (energy component)

Source/Note: L&RS compilation and analysis based on Statistical Information on Social Welfare Services annual reports. The estimate re proportion of households is provided for illustrative purposes relative to population data provided by the CSO. The proportions for 2008-2010 are based on Census 2006 data (1.47m households), 2011-2015 on Census 2011 data (1.65m) and 2016-2020 on Census 2016 data (1.7m).
Consumer protection measures

National strategies refer to consumer protection measures undertaken by Government to ensure that customers benefit from competition in the supply of electricity and gas. Liberalisation in these markets has been provided for under EU rules. As such, price regulation is no longer a consumer protection measure since supplies compete on price and set own prices accordingly.

As the independent regulator in this sector, the Commission for Regulation of Utilities (CRU) is responsible for monitoring competition. As part of its statutory role, the CRU has consumer protection functions and monitors energy retail markets. The CRU also oversees non-price aspects of competition and continues to take steps to increase transparency and consumer engagement in retail markets. This includes, for example, developing various codes of practice and setting out customers rights through, among other means, the ‘Electricity and Gas Suppliers’ Handbook’.

The CRU also certifies price comparison websites, leads the smart metering roll-out and participates in initiatives such as the supplier-led voluntary energy engage code under which suppliers will not disconnect a customer who is engaging with them.

The CRU is accountable to the Oireachtas through the Joint Committee on Environment and Climate Action.

Conclusion

As detailed in this Note, energy poverty is a complex and multidimensional phenomenon. Headline data suggests that levels of energy poverty has fallen in Ireland (from 28% in the Government’s Strategy to Combat Energy Poverty 2016-2019 to 17.4% of all households according to an ESRI study), as outlined in the National Energy and Climate Plan 2021-2030. However, definitional and measurement challenges persist.

Energy poverty disproportionately affects low or fixed-income households, particularly those reliant on State payments. It may be tempting to view energy poverty simply through the lens of affordability and thus for policymakers to focus solely on bolstering income supports. However, a low household income is not the only factor which may lead to or exacerbate energy poverty. It is evident that it may also be exacerbated by demographic determinants such as age, the state of a person’s general health and energy needs for several reasons. The energy-poor population is statistically more likely to report poor health (including, significantly, respiratory problems) and emotional well-being than the non-energy poor population and the phenomenon impacts significantly and negatively upon health (including mental health) and wellbeing, social inclusion and social cohesion, and housing tenure.

As such, energy poverty is a complex, multifaceted problem and therefore solving (or reducing) it requires a diverse series of policy measures. It is increasingly accepted that direct income supports alone (e.g., the Fuel Allowance and the Household Benefits Package) are insufficient, and longer-term measures aimed at improving the energy efficiency of households and reducing household energy consumption may be more effective. This evolution in thinking clearly underpins the Government’s National Energy and Climate Plan 2021-2030 and the (more recent) Climate Action Plan 2021 with commitments related to, among other things, an ambitious multiannual plan to retrofit and upgrade Ireland’s housing stock to a B2 (or equivalent) BER rating by 2030. However, a targeted approach requires investment (or incentivising investment) in homes contained households directly affected by or most at risk of energy poverty. A careful consideration of these factors is important for policymakers in the context of Ireland’s existing (and future)
strategies to meet climate action commitments and the continuing transition to a low-carbon economy.

2 A household is defined by the Central Statistics Office (CSO) as "a single person or group of people who regularly reside together in the same accommodation and who share the same catering arrangements." See: CSO. 2017. Household Budget Survey - 2015-2016, Appendix 1: Concepts and Definitions, June 2017.
3 There are 1.7 million private households in Ireland recorded in Census 2016. See: https://www.cso.ie/en/releasesandpublications/ep/p-cp4hf/cp4hf/hhlds/
5 There were 221,326,200 households in the (then) EU-28 (including the UK) in 2017. See http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfst_hhnhtych&lang=en
7 Author estimate based on 1.7 million private households as recorded in Census 2016.
8 The varying estimates are based on specific measures. The three headline estimates (supplied by the Department, ESRI and SILC, respectively) were also provided by the Minister for the Environment, Climate and Communications, Eamon Ryan in his response to a parliamentary question in November 2021.
13 The objective measure underpins the Government’s most recent estimate (2015/2016) of energy poverty levels in Ireland.
15 As detailed in the then Department of Communications, Energy and Natural Resources report "Warmer Homes; A Strategy for Affordable Energy in Ireland", November 2011.


Ibid.


Heat and Health,” Indicator Assessment, European Environment Agency.


Ibid.


For example, one study noted that the average social rented home in the UK is of significantly higher energy efficiency than any other tenure. See: HousingEurope.eu., *The State of Housing in the EU 2017*, p. 21.


See more information at [http://www.energise-project.eu/about-ENERGISE](http://www.energise-project.eu/about-ENERGISE)

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