Department for Energy Security & Net Zero

Interim Evaluation of Domestic Energy Affordability Support Schemes in Northern Ireland

Final Synthesis Report

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Completed by Ipsos Ltd for the Department for Energy Security and Net Zero prior to the general election in the United Kingdom in July 2024. As such, any references to government policies, commitments, or initiatives may reflect the stance of the previous administration and were accurate at the time of fieldwork.

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Glossary

Term	Definition
Contribution Analysis	A contribution analysis assesses evidence against the interventions' Theory of Change (ToC) and the hypothesised outcomes derived from the ToC. Contribution analysis can also be used to help explain how and why changes did, or did not, occur, and to assess what other factors may also have contributed to outcomes.
Contribution Claim	A contribution claim is a testable statement about how an intervention's activities contribute to intended outcomes. It asserts a cause-and-effect relationship between intervention activities and observed results, explaining how and why a program works within a specific context.
Energy Suppliers	An energy supplier is a company that sells energy, like electricity and natural gas, to consumers. They buy this energy wholesale from generators and resell it to homes and businesses in the areas they are licensed to operate.
Heat network	Heat networks are distribution systems of insulated pipes that take heat from a central source and deliver it to a number of domestic or non-domestic properties.
Home Heating Oil	Any petroleum product or other oil used for heating; it is a fuel oil. Approximately half of NI households rely on only home heating oil to heat their homes
Intermediary	In this context, an intermediary would be the individual who would pass on the cost of electricity or gas (or other types of energy) - and likewise the financial support received through the energy affordability schemes - to a household. For example, a landlord could be the intermediary between the renter and an energy supplier.
Northern Ireland Electricity Networks (NIEN)	The owner of the electricity transmission and distribution networks in Northern Ireland
Scheme Administration	The organisation(s) responsible for the day-to-day management and deployment of the energy affordability schemes.
Theory of Change (ToC)	A Theory of Change provides a simplified overview of the schemes' inputs (such as financial inputs, people or organisational inputs, infrastructure utilised), activities (activities that use inputs and result in outputs) and outputs (products of the programme activities), as well as

	the hypothesised outcomes (expected social, economic, environmental, etc. changes experienced by beneficiaries and other stakeholders) and impacts (systematic changes expected in the long-term).
URGENI	Northern Ireland Authority for Utility Regulation also referred to as the Utility Regulator in this report

Executive summary

Introduction

This report presents findings from an interim evaluation of a series of energy affordability support schemes implemented from 2022 for households in Northern Ireland (NI)[1]. The schemes ran in parallel with domestic schemes in Great Britain (GB) which are evaluated under a separate publication. A final impact and economic evaluation of the domestic schemes across the UK is underway and will be published in due course. Note that the energy support provided to organisations (e.g. businesses, public or voluntary sector organisations) will also be published under a separate evaluation.

Amid the rises in wholesale energy prices and growing concerns about their impacts on consumers in 2022, the UK government launched a package of energy affordability schemes. Schemes were first launched in Great Britain (GB) to alleviate the pressure on household finances, limit the negative effects of price rises on households, and the wider effects on the energy market and economy. Energy policy is devolved to NI, but due to the absence of a sitting NI Executive and Assembly at the time, and in consultation with NI Ministers, it was confirmed in summer 2022 that the UK government would also deliver energy affordability schemes in NI and provide a comparable level of energy support to households and businesses to that in GB.

In NI, these schemes were customised to the local context due to the notable differences in the energy market compared to the rest of the UK. These differences include a reliance on home heating oil rather than mains gas or electricity for heating, much greater use of prepayment meters and an energy retail market that is not regulated through a retail price cap. This results in a greater likelihood that market prices could directly impact NI customers.

Three domestic energy support schemes were introduced that, collectively, covered all households in NI:

- **Energy Price Guarantee (EPG)** - this lowered the unit price households paid for electricity and gas by setting a discount rate that domestic energy suppliers applied to the unit rates and standing charges they set for households. The government then compensated energy suppliers based on the amount of discounted gas and electricity they sold. The consumer saving was based on usage, so bills and savings could be higher or lower depending on how much energy consumers used. EPG was applied to bills automatically and did not require households to take any action to receive the support.
- **Energy Bills Support Scheme (EBSS NI)** and **Alternative Fuel Payment (AFP)** - every household with an electricity meter received a one-off £400 payment under the EBSS NI scheme in the winter on 2022/23 only. Unlike in GB, every NI household was

[1] This evaluation sits alongside two further evaluations: An interim evaluation for Great Britain and a UK-wide Impact Economic evaluation which is currently underway.

also entitled to receive a £200 payment from the AFP scheme; this was because of the much higher prevalence of consumers in NI using alternative fuels who would not get the full benefit from EPG. All households received this £600, regardless of their home heating system, because most households in NI use oil to heat their homes and the data required to exclude households with mains gas or electric heating from receiving the AFP were not readily available.

- **Energy Bills Support Scheme Alternative Fund (EBSS AF)** – this scheme was designed to ensure that households without a direct relationship with an energy supplier, and hence unable to receive the EBSS NI/AFP funding, could access equivalent support. It involved a one-time payment of £600 and targeted an estimated population of 28,000 eligible NI households. These included: care home residents; park homes; houseboats; off-grid households; and other non-standard energy consumers. The scheme was application-based, with household applications processed by a contracted delivery partner.

During 2022-23, other forms of cost of living support were also provided to households by the UK government, for example, cost of living payments (administered by DWP and local government). These were out of scope for this evaluation but provide some context for how households may have responded.

Methodology

The evaluation adopted a theory-based evaluation approach, alongside a process evaluation providing detailed analysis of the efficiency and effectiveness of processes established to deliver the energy affordability schemes. The outcome element to the evaluation was structured using contribution analysis to appraise evidence of its outcomes and impacts. This was centred on core 'contribution claims'. The perspectives and experiences of households targeted by and benefitting from the schemes was a critical source of evidence for the process and outcome evaluations. The evaluation was informed by evidence from large-scale surveys of, and qualitative depth interviews with, households that benefited from the schemes. It also included qualitative depth interviews with key stakeholders and advocacy organisations. Evidence from secondary data sources such as the NI Statistics Research Agency census of NI households was also used. Price elasticity modelling developed for this evaluation was also conducted to examine the relationship between the financial support provided through the schemes and energy consumption in benefitting households.

The process evaluation aims were to:

- Explore how the interventions were implemented, including efficiency, effectiveness and consistency of implementation across recipient groups and by delivery mechanism; and,
- Explore awareness, understanding, perceptions and experience of the interventions among different recipient groups.

The outcome and early impact evaluation aims were to:

- Provide evidence on the schemes' outcomes given the NI context; and,

- Provide early insights into the impacts of the interventions as reported by households, stakeholders, modelled evidence and secondary data analysis.

A final impact and economic evaluation for the UK energy affordability schemes is currently underway, which builds upon the evidence collected in this and the GB evaluations.

Process evaluation findings

Reach and coverage of the schemes: There was a high level of reach for the EBSS AFP scheme and similarly, all those on electricity and gas supplied directly by energy suppliers will have received the EPG discount. Take up of EBSS AF was lower than expected, although DESNZ's initial estimates of the number of eligible households during scheme design were based on the limited data then available and analysis for this evaluation suggests these early estimates were a little overstated. Households and advocacy organisations highlighted EBSS AF application complexities, especially for farmers or those living in park homes or mobile homes.

Awareness and communications: Households' awareness and understanding differed between the schemes: consumers' awareness of EPG was low, partly reflecting the intentional design of EPG, as an automatically delivered scheme. Some communications gaps appear to have impacted the EBSS AF scheme (a scheme required households to apply for the support), with low awareness amongst households. Across all schemes, some stakeholders and households expressed the view that they would have preferred clearer, timelier, and more NI specific guidance from DESNZ. Some stakeholders also perceived that communication and awareness raising activities focused on the GB schemes rather than NI. Word-of-mouth was the most common way eligible households learnt about the EBSS AF scheme.

Implementation effectiveness: energy suppliers and the Utility Regulator highlighted that early engagement and effective collaboration led to the smooth rollout of the EPG scheme; this approach also aligned well with their typical business operations. Reflecting the context of the schemes being designed and delivered very quickly, suppliers noted DESNZ's intention to engage with them through multiple channels but highlighted that the initial stages of scheme implementation were marked by confusion and a lack of timely guidance, particularly for the EBSS AFP scheme. Households tended to consider that the processes to deliver payments through the EBSS AFP were effective although energy suppliers highlighted challenges for their own operations, including the burden of manual payments. The Post Office's role in managing voucher redemption for the EBSS AFP was considered particularly effective by stakeholders due to their regional distribution enabling widespread accessibility. Instances of fraud were very low across all schemes, regarded as a further success by stakeholders, considering the rapid design and rollout.

Households' experience of the schemes: Households had generally high satisfaction with the amount of financial support provided by the energy affordability schemes and that the schemes were universal (although a small minority - around one in ten of those surveyed - expressed concern about the universality of the scheme, and interviews showed mixed views on whether this was perceived as unfair or needed for simplicity and speed). In interviews, advocacy organisations expressed the opinion that the communication campaigns should have

been more effective in reaching households eligible for the EBSS AF and that campaigns should have better targeted groups such as households on low incomes, older people and those living in rural areas.

Outcome evaluation findings

Noting the context in which the NI energy affordability schemes were designed and delivered and the speed at which they were put in place, the schemes were successful in reaching a large proportion of the population and likely prevented a large increase in households struggling to pay their energy bills and the resultant impacts for physical and mental health and on the wider economy.

Household energy consumption

Household underconsumption of energy

For winter 2022/23, 62% of NI households reported being able to heat their homes to a comfortable temperature most or all of the time; around a third (34%) were only able to 'some of the time', while 1% reported being unable to afford to heat their homes to a comfortable temperature at all.

When asked about the impacts for their household - in the absence of government support - in winter 2022/23, almost a tenth (9%) said they would definitely not have been able to, and a quarter (25%) said they would probably not have been able to afford their energy bills. For recipients of EBSS AF, the figures were similar with 7% saying definitely not and 24% probably not. In addition, those who indicated that they had been able to heat their home all of the time in winter 2022/23 were asked what impacts not having the schemes would have meant for their household. Of the 20% of respondents that heated their home all of the time, 36% stated they would not have been able to heat their home to a comfortable level all of the time without the Government's support.

Prepayment meter (PPM) self-disconnection and loss of alternative fuel supplies

In winter 2022/23, around a third of households disconnected in some form (37% of those on PPMs and 31% of alternative fuel households). The most common reason households on PPMs gave was that they did not realise the credit was running out (55%), followed by not having enough money to top up the meter (51%). Although, fewer than 1% of EBSS AF recipients reported disconnecting from PPMs, around one in five of those that used alternative fuels said that they ran out of these fuels at any time during the winter of 2022/23; just over a third of these ran out of fuel more than once. The main reasons for this were not having enough money to get a delivery of fuel, not realising the fuel supply was running out and needing the money for other things besides energy. In the nationally representative household survey, over a third of those on PPMs reported that they would probably not, and a further 18% that they would definitely not, have been able to afford to pay energy bills without the schemes support. While this does not directly translate to the schemes preventing disconnections for PPM consumers, it does imply that disconnections might have been higher without the schemes' support. In addition, both energy suppliers and regulators believed that self-

disconnections would have been significantly higher without these interventions. These findings suggest that while the energy affordability schemes may have had some positive impact on limiting the scale of energy supply disruptions, a proportion of households still experienced these challenges.

Household finances

Ability to pay energy bills and levels of energy debt

The schemes aimed to support households in NI to pay for their energy, preventing an increase in arrears with energy suppliers and the accumulation of energy debt. The analysis for this evaluation demonstrates that the EPG lowered energy bills to a substantial degree and three-quarters (74%) of households spent the £600 on energy costs. Both energy suppliers and regulators emphasised that the schemes helped curb energy debt. During the Wave 1 survey only a small minority of households said that they had not been able to pay at least one bill in winter 2022/23 (7% of main survey households and 5% of EBSS AF recipients). Around a third of survey respondents that received the £600 EBSS AFP payment and a similar proportion of those that received the £600 AF payment, said that, without government support in winter 2022/23, they would have been unable to pay their energy bills. Levels of energy debt did not rise or get worse in the winter following the schemes' delivery (i.e. winter 2023-2024) and energy debt had a prevalence of less than 10% of all households in NI over both winters.

Households experiencing fuel poverty

The schemes were not intended to reduce or prevent fuel poverty, per se, but instead to limit any increase in the extent of fuel poverty. The EPG was the primary tool for achieving this given that it targeted the 'energy price' driver of fuel poverty[2], and the EBSS AFP was introduced to support those who heated their home using home heating oil or other alternative fuels. There is good evidence from the price elasticity modelling conducted for this evaluation that EPG reduced energy bills for those that received it. In addition, there is evidence that EBSS AFP support contributed to a greater sense of bill affordability and, that a large majority (74%) of recipients reported having spent it directly on energy, which would have helped alleviate fuel poverty for some. However, in qualitative interviews households reported that energy costs were still high, and that the financial relief was only short-term reflecting findings from the main household and EBSS AF surveys that many households still found it difficult to afford their energy bills during the intervention period and after the schemes had ended.

Household borrowing and cuts in non-energy spending

The energy affordability schemes were expected to help increase the disposable income of NI households, meaning that these households would be less likely to under consume essential goods and services or to borrow to pay for these. Around one in five of all respondents to the main household survey said that, without government support in the winter of 2022/23 (EPG

[2] The evaluation highlights that there were three primary drivers of fuel poverty: high energy costs driven by the energy demand within the home (e.g. homes being harder-to-heat), the households' spending power (i.e. levels of income), and energy prices.

and EBSS AFP), they would have taken on (more) household debt. A similar proportion of EBSS AF recipients also said that they would have taken on (more) household debt without this support. However, 19% of main survey respondents reported that they still needed to borrow despite the schemes. The qualitative interviews showed that some households felt that the schemes had very little impact on limiting their use of savings to cover higher energy bills.

Health and wellbeing

One of the reasons behind the introduction of the support schemes was to limit the effect that increases in energy bills or consumer concern about bills would lead to underheating and the physical or mental health issues resulting from underheating. The evidence suggests that energy affordability schemes played a role in limiting the mental and physical health impacts arising from increases in energy bill costs but were insufficient to mitigate these impacts for some groups of the population. Evidence from the household interviews suggests that the schemes helped alleviate some of the negative physical and mental health impacts arising from increased energy bills. Some interview participants said, however, that the schemes helped alleviate their stress and anxiety in the short term, but not in the long term.

Energy suppliers' insolvencies and cashflow

The schemes were implemented to mitigate the concern that without support some households would not be able to pay their bills, and this would lead to them being in arrears in their payments to energy supplier and accumulating energy debt (see energy debt section, above). In addition, for those paying for their energy via PPMs, inability to pay for energy could result in disconnection. Therefore, there was the risk that high levels of energy debt and/or disconnection could have impacted the solvency of suppliers. However, it is notable that there was much less risk of energy suppliers in NI becoming insolvent compared with those in GB as a result of increased energy bills. Suppliers and regulators described factors including smaller supplier size and stability of the NI market meaning that suppliers are able to manage cash flow challenges fairly easily. However, the evidence available suggests that the energy affordability schemes did contribute to limiting increases in energy debt and disconnection which could have impacted supplier cashflow and profitability. None of the energy supplier interviewees directly reported that the energy affordability schemes improved their risk of insolvency, however, some did report that the effect of these contributing factors were reduced.

Lessons learnt

Energy is a policy usually devolved to the Northern Ireland Executive but the context in 2022 meant that these schemes were implemented by the UK government. The evaluation has identified several cross-cutting lessons that could be of benefit when considering the design of any future energy affordability schemes either in the UK or NI:

- The UK government designed and implemented the schemes at pace and therefore the obvious approach was to adapt the GB schemes. With a very different energy market and household characteristics, a more tailored approach for NI could have been even more effective.

- While the schemes benefitted households as intended, the scale of support did not prevent some households from being more likely to report poor outcomes. This included those on low incomes, using PPMs and/or where a member of the household had a disability or long-term illness. Any future schemes should consider how to identify these groups and the benefits of providing additional support.
- Whilst the schemes were universal, the EBSS AF scheme was targeted at those without direct relationships with energy suppliers. Given that there were no direct administrative sources available to identify households covered by the scheme, communication was important to enabling take up. If it is decided that any future scheme should target similar groups, it is important that communications are targeted using appropriate advocacy and support groups to increase the likelihood that eligible households are aware of and take up the support to which they are entitled.
- With any future schemes, awareness raising efforts should be increased to reduce concern over affordability related to ever increasing bills, this is particularly important where less visible discount schemes are implemented.

1. Introduction

1.1 Overview of study and work completed

In June 2023, the Department for Energy Security and Net Zero (DESNZ) commissioned Ipsos, in association with London Economics, Perspective Economics and Neil Barnes, to undertake an interim evaluation of the household affordability schemes in Northern Ireland (NI). The schemes were implemented in NI from late 2022, in response to the significant increases in energy prices during that year. The schemes covered by this evaluation were: the Energy Price Guarantee (EPG); the Energy Bills Support Scheme (EBSS), which in NI was delivered in tandem with the Alternative Fuel Payment (AFP) scheme; and the EBSS Alternative Fund (EBSS AF).

This report presents the findings of the process and outcome evaluation of the NI energy affordability schemes. The evaluation used a theory-based evaluation approach, providing detailed analysis of the efficiency and effectiveness of processes established to deliver the energy affordability schemes. It also uses contribution analysis to appraise the evidence of its outcomes and impacts. This evaluation draws on extensive quantitative and qualitative data, including household surveys of residents across NI and interviews with scheme beneficiaries and other stakeholders (such as advocacy organisations supporting specific interest groups). It also draws evidence from secondary data sources and on analysis from a price elasticity model developed for this evaluation, which examined the relationship between the financial support provided through the schemes and households' energy consumption.

There is an impact and economic evaluation for the UK energy affordability schemes currently underway which will build upon the evidence collected in this and the GB evaluations.

1.2 Purpose and structure of this report

This report presents the findings of the final analysis for the process and outcome evaluation for the interim evaluation of the energy affordability schemes. This report is structured as follows:

Chapter 2 provides an overview of the context for and details of the energy affordability schemes;

Chapter 3 summarises this evaluation's aims and objectives, its approach and methodology, and the data and sources of evidence informing the findings;

Chapter 4 presents the energy affordability schemes' theory of change;

Chapter 5 reports the results of the process evaluation of the energy schemes;

Chapter 6 reports the results of the outcome evaluation of the energy schemes;

Chapter 7 concludes with a summary of findings and lessons learnt.

2. The NI energy landscape and overview of the NI Energy Affordability Schemes

This chapter outlines the context and rationale for the introduction of the energy affordability schemes in NI and provides an overview of their design. A summary of the delivery of each of the schemes is provided in Chapter 5 covering the process evaluation findings.

2.1 Context to and rationale for the domestic energy affordability schemes in NI

Energy price increases and rationale for the schemes

In 2022, households faced an unprecedented increase in prices across energy and non-energy expenditure, which placed increasing pressure on household budgets. The wholesale price of energy in NI increased sharply from September 2021, propelled by the record rise in global gas prices.[3] As the Utility Regulator in NI (UREGNI) did not employ a price cap as Ofgem did in GB, the sudden price rise at wholesale was passed through immediately to NI consumers. In NI, households would also be affected by the rise in prices of alternative fuels,[4] as more than two-thirds of NI households use oil boilers as their main source of heating.[5]

As a result of this pressure, the UK government anticipated that the increase in prices would lead to households significantly reducing their heating and energy usage (as well as expenditure on other necessary goods and services), which might have adverse effects on consumers' health and wellbeing as well as on the economy (due to a drop in spending). The magnitude of the rise in prices meant that households that would not typically be at risk of fuel poverty were newly exposed to this risk,[6] thus requiring a more universal form of government response.

The government also anticipated that the sudden rise in prices would prevent some households from being able to pay for their bills (creating debt to energy suppliers), and that it might drive those on prepayment meters or heating their homes through alternative fuels to limit their energy usage to avoid running out of credit (self-rationing) or to delay buying new fuel or topping up their meter once credit had run out (self-disconnection). Here, the government considered that in NI, as with GB, such effects might also lead to short-term challenges in cashflow for energy suppliers and an increased risk of energy supplier

[3] NIHE, BRE (2024) Impact of 2022 fuel prices on fuel poverty in Northern Ireland
[4] DESNZ (2024). Monthly and Annual Prices of Road Fuels and Petroleum Products. See also: House of Commons Library (2024). Research Briefing CBP 9838 Households off the gas-grid and prices for alternative fuels
[5] NI Direct - Central Heating – Energy Advice – accessed 04 September 2024
[6] In Northern Ireland, fuel poverty is defined under the 10% fuel poverty methodology, where a household is considered to be in fuel poverty if, in order to maintain a satisfactory level of heating (21°C in the main living room and 18°C in other occupied rooms), it is required to spend more than 10% of its household income on all fuel use. See: NIHE, BRE (2024) Impact of 2022 fuel prices on fuel poverty in Northern Ireland.

insolvency, presenting a risk to energy market stability. The UK government therefore launched the energy affordability schemes to alleviate the pressure on household finances to not only limit the negative effects of price rises on households, but also limit the wider effects on the energy market and economy.

Before these rises, NI households already spent more on energy costs than other parts of the UK, both in absolute terms and as a proportion of household income.[7] Research conducted by the University of York estimated that over seven-in-ten (71.7%) of NI households (prior to any energy affordability support) would be spending over 10% of net income on fuel over 2022/2023 winter – the highest rate of any UK region.[8]

Prior to the introduction of the energy affordability schemes, UK households in fuel poverty could access support for their energy and household bills through Winter Fuel Payments,[9] the Affordable Warmth Scheme,[10] Emergency Fuel Payment (applicable to NI only),[11] and Cold Weather Payments.[12] However, these pre-existing schemes were mainly means-tested initiatives and the UK government considered them insufficient to counter the potential negative effects of the 2022 rise in costs on UK households. The existing schemes were not linked to energy prices, so did not automatically provide extra support to eligible customers as a result of substantial increases in price. Moreover, the scale of the anticipated price rise also meant that a large number of new households, who might not be benefitting from the existing initiatives, were at risk of becoming fuel poor.[13]

The NI energy market

Wholesale energy in NI is structured through the Integrated Single Electricity Market (I-SEM) on the island of Ireland. The I-SEM balances supply and demand for electricity between generator and suppliers in the Republic of Ireland and NI to set an all-Ireland wholesale price. This means that GB and NI wholesale prices are distinct and vary even if they are influenced by the same forces (e.g., high wholesale gas prices, demand through interconnectors).

The NI energy retail market is also structured and regulated independently of markets in GB. UREGNI regulates the NI market. However, unlike the GB energy regulator Ofgem, UREGNI does not employ a retail price cap, meaning market prices are applied to NI consumers.

Six electricity and gas suppliers operated in NI over the time period covered by this evaluation (November 2022 to March 2024) and administered payments for the schemes. Four of the NI energy firms supplied electricity only (Budget Energy, Click Energy, Electric Ireland, Power NI), one supplied gas only (Firmus energy), and one electricity and gas (SSE Airtricity). Power NI supplies energy to almost 60% of households in NI and the small number of suppliers means that competition might not be regarded as sufficient on its own to properly protect customers.

[7] https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/expenditure
[18] NIHE, BRE (2023): Estimates of Fuel Poverty in Northern Ireland 2020-21
[8] University of York, Social Policy and Social Work, Jonathan Bradshaw and Dr Antonia Keung, August 2022.
[9] Source: https://www.nidirect.gov.uk/articles/winter-fuel-payment
[10] Source: https://www.nihe.gov.uk/housing-help/affordable-warmth/affordable-warmth-scheme
[11] Source: Department of Communities: Emergency Fuel Payment Scheme - screening
[12] Source: https://www.nidirect.gov.uk/articles/cold-weather-payment
[13] NIHE, BRE (2023): Estimates of Fuel Poverty in Northern Ireland 2020-21

As a result UREGNI regulates Power NI to assure customers that their prices directly reflect the cost of producing and supplying electricity. Other suppliers are not regulated but the drive to keep customers and obtain new ones is considered (by UREGNI) to provide sufficient pressure to keep their costs down and prices affordable.[14] The price control of Power NI also includes controlling the amount of profit that the company can make, meaning that any profits above the UREGNI price control in a given period must be given back to customers through their tariff during the next period.

In November 2022, UREGNI, the Consumer Council for NI (CCNI), the NI government department for Communities and Department for the Economy, and all six gas and electricity suppliers developed support measures over the winter via a Consumer Energy Charter. This charter contained commitments by the six suppliers, including: contributing to a hardship fund for those struggling to pay their bills; reducing the maximum debt repayment rate to 20%; ensuring customers on care register would not be forced onto prepayment meters (PPMs); and guaranteeing no households would be forced onto PPMs over the Christmas period; and providing access to a single energy advice website for all consumers. This charter was in place until March 2024[15].

Unlike GB where most households use mains gas for heating, around half of NI households rely on only oil to heat their homes and less than four per cent use other sources such as electricity, solid fuel, bottled gas and renewables.[16] Piped natural or mains gas was only introduced to NI in 1996 and under a third (31.6%) of NI households used this as their sole heating source at the 2021 Census. As a result, NI households have the highest reliance upon domestic oil heating in Western Europe. Households will typically purchase bulk deliveries of home heating oil (HHO), often supplied via a local preferred distributor, or via price comparison services. Prices for alternative fuels are not regulated in the same way as gas and electricity prices, which means they can vary on a day-to-day basis and between different local areas to a much greater extent. Over the last few years, gas has generally cost around 20% less to heat homes in NI than HHO; this cost differential would have been higher in spring - summer 2022 when oil costs spiked, but then fell across 2023 and 2024.[17]

There are also geographical differences in the use of different heating sources. For example, analysis for this evaluation showed that gas take-up is predominantly within the Greater Belfast and Ten Towns area, with oil prevalent in the rest of NI. At a more localised level, take-up is often mixed – with gas being available, but not necessarily the dominant fuel type for the area. This mixed use is common within some parts of Ards and North Down, and South Belfast – where homes continue to use oil central heating.

[14] UREGNI What costs make my energy bill
[15] https://www.uregni.gov.uk/publications/energy-charter
[16] House of Commons Library (2024). Research Briefing CBP 9838 Households off the gas-grid and prices for alternative fuels
[17] ibid

How households pay for their energy in NI

As of 2022, there were 865,000 domestic meters and 73,000 non–domestic meters in NI.[18] Discussions with experts in consumer energy highlighted that dual fuel tariffs and fixed rate tariffs are less common in NI than GB with most households having separate gas and electricity suppliers and paying variable rates. Prepayment meters (PPMs) are common in NI as a means of accessing electricity from the grid. More than 40% of households have an electricity PPM and, of those households with a gas connection to the grid, more than 60% have a PPM[19]. PPM customers in NI did not pay a higher rate for the electricity than other customers and therefore PPM use is not equated to vulnerability in the same way as it is in GB.

Following its roll-out in 2002, most households use the Liberty 'Keypad' PPM system. Through this, once credit is uploaded (vended) into a Keypad PPM it locks in the energy price at the time of vend, not the time of use.

Fuel poverty in NI

The House Condition Survey (2016) in NI estimated fuel poverty at 22% of households in 2016[20]. A subsequent update by the Northern Ireland Housing Executive (NIHE) in 2023 estimated an increase to 24% of households in 2020-21.[21] In addition, analysis of the Living Costs and Food Survey for the Department for the Economy in 2022 showed that NI households direct a greater share (16%) of their non-discretionary expenditure to energy compared to the UK as a whole (10%)[22].This demonstrates that households in NI were more vulnerable, compared to other regions of the UK, to increased energy prices and energy expenditure.

There is no single, universally accepted definition of fuel poverty, and the criteria for determining fuel poverty varies across the United Kingdom[23]. This report has used an energy burden metric as a proxy for fuel poverty so that results can be presented alongside those of other UK nations in the forthcoming impact evaluation.

2.2 Overview of the NI energy affordability schemes

Amid the rises in energy prices and growing concerns about their impacts on consumers, the UK government launched a package of financial support for households to make their energy bills more affordable. The package was first made available for households in GB in October 2022. Energy policy is devolved in NI, but due to the absence of a sitting NI Executive and Assembly, and in consultation with NI Ministers, it was confirmed in summer 2022 that the UK

[18]DESNZ (2024) Sub-national electricity consumption statistics in Northern Ireland
[19] UREGNI (2022) Domestic Consumer Insight Tracker Survey 2021
[20] NIHE (2018) House Condition Survey: Main Report 2016.
[21] NIHE, BRE (2023): Estimates of Fuel Poverty in Northern Ireland 2020-21
[22] Department for the Economy (2022). Northern Ireland Household Energy Expenditure
[23] The definitions and measurement of Fuel Poverty vary across countries, including within the United Kingdom. For more information on the differences in Fuel Poverty definitions across the UK, refer to the House of Commons Library briefing paper CBP8730.

government would also deliver energy affordability schemes in NI and provide a comparable level of energy support to households and businesses to GB. DESNZ sought to deliver equivalent energy affordability schemes across the UK as far as possible, but there were some differences how the NI and GB schemes operated due to the differences in how energy is procured, distributed and used in both regions. In designing the schemes, DESNZ anticipated these different contexts might create differences in households' experiences of the support.

Given the acute nature of the energy price rises in 2022, the support was intended to be deployed at significant speed, scope and scale, providing near universal support to all households within NI (c. 840,000 households). Overall, DESNZ undertook responsibility for the design and delivery of the schemes; HM Treasury supported DESNZ in designing the schemes and approved the budget for each scheme; and UREGNI, was responsible for monitoring supplier compliance with the supplier obligations for the schemes in NI, such as ensuring that bills are reduced to the levels specified and assessing the need for, and taking, enforcement action where required.[24]

Energy Bills Support Scheme (EBSS NI) and Alternative Fuels Payment (AFP)

The energy affordability schemes were applied in NI with adaptations and modifications (set out below) to reflect the different context and timing of the schemes. As in GB, every household with an electricity meter will have received a one-off £400 payment under the EBSS NI scheme in the winter of 2022/23 only. Unlike in GB, every NI household was also entitled to receive the £200 AFP payment, regardless of their home's heating system. This was for two reasons: (1) the data required to exclude NI households with gas or electric heating from receiving the AFP payment was not readily available and could not be sourced in time to ensure payment could be processed and received that winter; and (2) the majority of NI households use alternative heating fuels. Therefore, in NI, EBSS and AFP were combined into one £600 payment to all households. Given the NI specific context, the EBSS NI scheme design required the following adaptations:

- Unlike in GB, where the EBSS payment was provided in six monthly instalments (Oct 2022 – Mar 2023), in NI the combined EBSS-AFP payment was provided as a one-off £600 lump sum from January to March 2023. The monthly instalment model used in GB was deemed infeasible for NI due to the shorter lead-in time for the NI scheme and technical barriers faced by NI suppliers (such as issues with meter point data).
- In GB, the payment was provided to households by suppliers who had some flexibility to determine how direct debit (DD) customers would access it. In NI, however, the payments were provided as cashable vouchers or bank transfer to payee bank accounts by default. This reflected the NI context, including that dual fuel tariffs are rare in NI, and the majority of NI homes are heated with heating oil so if the £600 was provided as energy credit the majority of households would only be able to use it for their electricity bills rather than for heating as well – the main energy cost in winter. In addition, there

[24] Committee of Public Accounts (2023). Fifty-eighth Report of Session 2022/23: Energy bills support.

were technical issues with supplying such a large amount of credit to NI PPM customers due to the design and operation of the NI Keypad PPM system.

- Direct debit customers in NI received their £600 through bank transfer from their energy supplier. Credit customers, who pay for energy in arrears following billing, and customers with PPMs were sent vouchers that could be redeemed at the Post Office. These households received letters with their vouchers between 16 January and 28 February 2023 that could be redeemed at the Post Office until 30 June 2023.
- In addition, where an intermediary[25] (such as a landlord) or a heat network[26] provider held the direct relationship with the energy supplier and the energy was provided through a domestic supply. Such intermediaries or heat network providers had to ensure that the payment was passed down to residents and tenants, who would have the right to legal redress for non-payment.

EBSS Alternative Fund (EBSS AF)

EBSS AF was designed to ensure that households without a direct relationship with an energy supplier, and hence unable to receive the EBSS AFP funding, could access equivalent support. The EBSS AF NI was combined with the AFP and therefore eligible customers without a direct relationship with an energy supplier, could apply for a one-off £600 payment (compared to £400 in GB). EBSS AF NI targeted an originally estimated population of 28,000 eligible households which included caravans, park homes, houseboats, private and social tenants on commercial meters, care home residents who were at least partly self-funded, farmhouses, off grid and other non-standard energy consumers.

The scheme opened for applications in February 2023 and concluded in June 2023. Eligible households needed to apply for the support payment online on Gov.uk. Whereas in GB a large part of the backend processing of applications was conducted by local authorities (LAs) who checked the identity and eligibility of applicants, this was not feasible in NI. Therefore, a commercial supplier (Arvato) was appointed by DESNZ to undertake this function.

Energy Price Guarantee (EPG)

The EPG applied to those with a domestic energy meter connecting them to mains electricity and/or gas. In NI, the EPG lowered the unit price households paid by setting a discount rate that domestic energy suppliers applied to the unit rates and standing charges they set. The government then compensated energy suppliers based on the amount of discounted gas and electricity they sold. The consumer saving was based on usage, so bills and savings could be higher or lower depending on how much energy consumers used. In GB, the EPG effectively capped unit rates at the ‘guarantee rate’ through its interaction with the default price cap but this is not the case in NI where there is no default price cap. The NI scheme started one month later than GB, (November 2022 rather than October 2022). This was because of the lead-in

[25] In this context, an intermediary would be the individual or organisation who would pass on the cost of electricity or gas (or other types of energy) - and likewise the financial support received through the energy affordability schemes - to a household.
[26] Heat networks are distribution systems of insulated pipes that take heat from a central source and deliver it to a number of domestic or non-domestic properties.

time required for NI suppliers to update their systems. To compensate, an additional discount rate of 2.9p/kwh for electricity and 0.6p/kwh for gas was added for the first five months of the scheme (November 2022 to March 2023) in NI. From 1 July 2023, households in NI no longer received an EPG discount on their gas and electricity bills due to falling wholesale energy prices. NI Energy Networks (NIEN) shared metering data from NI electricity suppliers with DESNZ for the administration of EPG, and DESNZ paid suppliers directly for the difference between what they charged and what the unit cost would have been.

Unlike with traditional PPMs in GB, keypad PPMs in NI convert the vend into kWh units of energy usage based on the tariff linked to that PPM at the time of vend rather than time of use. This gives an incentive to customers to stock up credit on their PPMs just before tariff rates change in order to lock in lower prices at the better rate. One potential issue raised at the design stage was that it might have been possible for PPM customers to have bought disproportionate amounts of credit at the UK government subsidised unit rate prices before discount rates were reduced.

The EPG scheme was expected to offer support equivalent to help already being delivered in GB. This was expected to save consumers in NI who use both gas and electricity around £700 in winter 2022/23. Households were not required to apply for the scheme, with support delivered automatically. Under the EPG, energy suppliers reduced bills in NI by up to 20p/kWh for electricity and 4.8p/kWh for gas.[27]

Table 2.1 provides a summary of the support delivered through each of the schemes, according to monitoring data and additional secondary sources.

Table 2.1: Support delivered through energy affordability schemes in NI (November 2022 – March 2024)

Scheme	Expenditure to date (£ million)	Percentage spent of originally estimated expenditure	Number of households reached	Scheme end date
EPG	301	-	~802,200[28]	31 March 2024[29]
EBSS AFP	492	96%	819,470	30 June 2023[30]
EBSS AF	3.2	-	5,340	3 May 2023

[27] BEIS, Northern Ireland Office (NIO) (2022) Energy bill support for Northern Ireland households launches. Press Release, published 1 November 2022, last accessed: 19 September 2024
[28] This is based on the number of domestic electricity meters in NI in 2022. This will be an overstatement of the number of households given that it includes vacant properties and dwellings can include multiple meters. Source: DESNZ (2024) Sub-national electricity consumption statistics in Northern Ireland
[29] As previously noted, EPG did not 'end' until 31 March 2025. However, wholesale energy prices fell so the discount was no longer applied.
[30] Vouchers could still be redeemed until 30th June 2023.

3. Evaluation approach and methodology

3.1 Evaluation scope and aims

The scope of this evaluation was to gather evidence on, and assess, the effectiveness of the implementation of the domestic energy affordability schemes in NI. Alongside this it also gathered evidence on NI consumer awareness, understanding, perceptions and experience of the schemes, and of the emerging effects (outcomes) of the support as perceived by consumers and key stakeholders, including energy suppliers. The evaluation comprised a process and an outcome evaluation.

Out of scope for this evaluation contract was a causal impact evaluation of the energy affordability schemes. An impact and economic evaluation for the UK energy affordability schemes is currently underway, which will build upon the evidence collected in this and the GB evaluations.

Process evaluation aims

The overarching aims of the process evaluation were to:

- Explore how the interventions were implemented, including efficiency and effectiveness and consistency of implementation across recipient groups and by delivery mechanism;
- Explore the awareness, understanding, perceptions and experience of the interventions among different recipient groups; and,
- Explore the perceptions and experience of key stakeholders of the schemes.

Outcome evaluation aims

The outcome evaluation aimed to:

- Provide evidence on the schemes' outcomes given the NI energy context; and,
- Provide early insights into the impacts of the interventions as reported by households, and stakeholders and through modelled evidence and secondary data analysis.

During 2022-23, there were also other forms of cost of living support provided to households by the UK government, for example, cost of living payments. These were out of scope for this evaluation, but we gathered some evidence during the surveys and qualitative interviews to provide context for households' energy behaviours through this external factor.

3.2 Overarching approach to the evaluation

The evaluation was intended to assess process, outcomes and early impacts, but as an interim evaluation, it was not intended to be a causal impact evaluation. This will be addressed in the ensuing impact and evaluation of the NI and GB schemes, due to report later in 2025.

Rationale for the approach

Overall, this evaluation uses a theory-based evaluation (TBE) approach to examine how the energy affordability schemes have been delivered (process) and how they contributed towards their intended outputs and outcomes. This evaluation also draws upon modelling and secondary data analysis to support the understanding of the process and outcomes of the schemes.

The unique context within which the schemes were launched, and the universal nature of the interventions informed the overall evaluation approach. The GB and NI energy affordability schemes were launched following a period of extreme disruption, resulting from COVID-19, structural changes in domestic energy consumption as remote working patterns settled, as well as the war in Ukraine, with widely acknowledged inflationary pressures exacerbating these structural changes. This means that any interpretation of change observed over time required close attention to the broader context and the external drivers of change that might offer alternative explanation for any change observed. This was particularly difficult as all domestic energy affordability schemes were implemented prior to the evaluation work taking place. In addition, the schemes were launched at pace due to the need to provide support quickly.

Therefore, a TBE approach was considered the most appropriate. TBE involves scrutinising the assumptions underlying the causal chain from inputs to outcomes and impact. The approach seeks to understand how and why the programmes may have, or have not, influenced outcomes.

Theory of Change development

The evaluation team used a multi-phased approach to develop the ToC for the energy affordability schemes (set out in Annex B). This included several scoping activities to develop preliminary ToCs for each scheme; a series of workshops with members of DESNZ policy and analysis teams to collaboratively refine the ToC for each scheme; further refinements of the ToCs at the conclusion of the first and second phase of fieldwork.

3.2.1 Process evaluation

Scheme process maps were developed to establish a framework for the process evaluation, including the identification of strengths and weaknesses in performance. This involved documenting the operational workflows of the schemes through a combination of documentation review and stakeholder interviews. The resulting process maps provide a clear and concise visualisation of the schemes' implementation processes and complement the ToC by illustrating the flow of activities involved in scheme execution, the schemes' governance architecture (outlining the roles and responsibilities of stakeholders), and interdependencies of processes. The process maps are provided in Annex B. Utilising both the self-reported and therefore subjective perceptions and observed data (e.g. management information), this study focuses on understanding the experiences of different recipient groups, comparing their awareness, understanding, perceptions, and overall experience with the intended design and

function of the schemes. Table 3.1 outlines the key aspects of the energy affordability schemes' delivery that were assessed through this process evaluation.

Table 3.1: Delivery processes / stages investigated and evaluated as part of the process evaluation analysis

Stage / process group	Types of delivery activities covered
Scheme design, set up and communications	Scoping work done by DESNZ before the interventions, drafting and finalising the business cases, launching guidance for local authorities and energy suppliers, and communications to increase awareness
Contracting and revisions	Setting up the contracts with energy suppliers and the transfer of funds to energy suppliers and scheme administrators
Delivery of payments	Facilitation of the payments from local authorities and energy suppliers to beneficiaries
Compliance, assurance and audit of schemes	Checks and assurance processes to ensure energy suppliers deliver the interventions as expected
Final reconciliation and scheme closure	End of scheme reporting and comparison of actual vs. estimated costs for delivering interventions[31]
Household perceptions towards and experience of schemes	Opinions and beliefs of households on the necessity of the interventions, and their experience of applying for them (where applicable) and receiving them
Stakeholder experiences of the schemes	Opinions and experiences of energy suppliers, scheme administrators, and advocacy organisations on the necessity of the schemes and their delivery (where applicable)

3.2.2 Outcome evaluation

A contribution analysis approach was used to examine the outcomes of the energy affordability schemes. [32] This method involves a systematic assessment of available evidence, comparing it against the individual schemes ToCs and the anticipated outcomes outlined within them (see above). As highlighted above, the evaluation team revised the ToCs and the associated hypothesised contributions at two stages: (i) following desk-based review of documentation and scoping consultations with DESNZ, and (ii) following two main waves of data collection based on insights gathered at each stage. This served several purposes. Firstly, it facilitated a more nuanced and contextually grounded assessment of the evidence against the ToCs, ensuring alignment with the evolving understanding of the interventions' mechanisms and

[31] At the time of writing, not all schemes had reached final reconciliation stage
[32] Mayne, John. (2011). Contribution analysis: Addressing cause and effect. Evaluating the Complex. 53-96.

potential impacts. Secondly, it helped identify areas where additional data collection might be necessary, particularly when the existing evidence base was deemed weak or insufficient. Finally, this iterative approach allowed for the exploration of alternative hypotheses that could better explain any observed changes in the hypothesised outcomes over time.

In this evaluation, through the contribution analysis, the available evidence was appraised and is presented in Chapter 6 according to five key dimensions:

1. The **contribution story** being tested.
2. **Evidence of change over time (of the issue being considered).**
3. **Magnitude and prevalence** (of the issue being considered) over the intervention period – how critical or important the energy affordability schemes were to the outcome materialising across the eligible population and other stakeholders. Heterogeneity in terms of experiences or outcomes across respondents is also explored here.
4. **Agreement of evidence** with hypothesised contribution.
5. **Interpretation** of the evidence and discussion of the **risk of bias**, which indicates the level of confidence in the evidence / the potential for other explanations for the findings.

For the critical appraisal (or assessment of the risk of bias) of the findings, the interim evaluation has considered both the strengths and weaknesses of the evidence and analytical approach by considering the risk of bias against a range of criteria, including source credibility; sample representativeness evidence convergence and (plausibility; respondent, recall or optimism bias).

Data synthesis and triangulation approach

An evidence matrix was developed in a spreadsheet to organise summaries of relevant data collected and findings developed through different sources and analytical strands into a single location. The evidence was structured to reflect the main key lines of inquiry for the process evaluation and, for the outcome evaluation, the ToC components and contribution claims. At each stage of the evaluation, the evidence matrix was utilised to identify areas of convergence (agreement between findings), complementarity (different sources offering additional insights on the same issue), and discrepancy or dissonance (contradictory findings), allowing for a more comprehensive and nuanced understanding of the data.

3.3 Primary data collection

The perspectives and experiences of households targeted by and benefitting from the schemes was a critical source of evidence for the process and outcome evaluations. The evaluation draws on evidence from:

- Longitudinal (in two waves) nationally representative surveys of households in NI (referred to as the main household survey throughout the report);
- A supplementary survey also conducted longitudinally (in two waves) of EBSS AF recipients;
- Qualitative depth interviews with recipients of the EPG, EBSS AFP and EBSS AF to gather additional insight; and
- Qualitative depth interviews with key stakeholders including delivery partners, energy providers and organisations working with consumers and advocacy organisations for specific interest groups expected to be affected by high energy prices.

The purpose of conducting the survey in two waves was to see how the same group of households experienced winters 22/23 and 23/24 differently, on the assumption that the comparison would indicate whether and how the schemes made a difference in the first winter. The comparative findings from the two waves have been used in the outcome evaluation.

3.3.1 Longitudinal nationally representative survey

As EBSS AFP and EPG populations covered most households in NI, these groups were surveyed using a random probability, nationally representative survey of NI households using a 'push-to-web' methodology over two waves. This involved sending a letter to households inviting participants to complete an online survey. To improve coverage and capture the views of those who may be digitally excluded, participants were also offered the option to complete the survey by telephone. Contact details were provided for the Ipsos telephone helpline and households could request an interview at a time that suited them.

At Wave 1, a total of 1,396 survey responses were achieved between 25th October and 20th November 2023. Of these, 1,233 respondents agreed to be recontacted (88%) and this formed the sample frame for the second wave. A total of 847 survey responses were achieved from this re-contact group at Wave 2 between 10th April and 24th May 2024.

3.3.2 Supplementary survey of EBSS AF recipients

Due to the low incidence of EBSS AF recipients in the general population, a separate survey was conducted, in two waves, among recipients of EBSS AF. For the EBSS AF supplementary survey, Ipsos first intended to use a face-to-face approach, to survey scheme recipients, with snowball sampling to try to identify additional eligible but non-applicant households within local areas. However, during the face-to-face fieldwork, it became clear that the free find and snowballing approach to recruiting 250 EBSS AF eligible non-applicants was not achievable within the timeframe available, as they were proving too difficult to identify and reach due to the lack of a sampling frame and their geographical dispersal. Fieldwork was also impacted by extreme weather conditions due to Storm Ciarán which affected NI in late October 2023. Therefore, after completing 52 face-to-face interviews with recipients only, it was agreed with DESNZ to focus this element of the research on successful AF recipients using a push-to-web survey approach. Participants were offered the option of a telephone survey to help include the views of those who may have been digitally excluded.

At Wave 1, a total of 539 survey responses were achieved (of which 457 were conducted online, 30 by telephone and 52 were face-to-face). For the push-to-web approach, fieldwork was completed from 7th December 2023 to 26th January 2024. In total, 379 respondents agreed to be recontacted for Wave 2. The non-responders (4,221) from Wave 1 were also included in the Wave 2 sample providing a total sample of 4,600 households that were invited to take part in the second Wave.

At Wave 2, 363 interviews were completed between 16th April and 30th June 2024 (261 from the Wave 1 recontact sample and 101 from the original sample that had not responded at Wave 1).

Table 3.2: Overview of main household and supplementary survey samples achieved

	Wave 1 number of survey invitations	Wave 1 completes	Wave 1 response rate	Wave 2 number of survey invitations	Wave 2 completes	Wave 2 response rate
Main household survey	16,000	1,396	8.8%	1,233	847	69%
Supplementary survey (EBSS AF)	4,987	539	11.1%	4,600	363	7.9%

3.3.3 Analysis of survey data

The analysis of the survey data comprised a descriptive analysis of respondents' responses and the sample's characteristics, including tables and cross-tabulations showing variables distributions and the statistical significance between different groups of respondents' responses.[33] Survey data was analysed and reported at a total population level and, where relevant by bivariate descriptive analyses of outcome variables by relevant subgroups (for example, gender, age or property type). Statistical significance testing (at a 95% confidence level) was used to determine if differences in responses between different subgroups represented a true difference or random variation. Only differences between subgroups or different survey waves (i.e. Wave 1 and Wave 2) that are statistically significant are interpreted in this report, unless otherwise stated.

[33] Statistical tests reporting the significance of the differences between groups responses to survey questions using a z-test with a confidence interval of 95%.

Assessing energy burden

The measure of energy burden, which calculates the proportion of household income (after rent and mortgage expenses) spent on energy using responses to survey data, was developed to identify and estimate the proportion of households experiencing high energy costs[34].

A binary classification is used to categorise households into two main groups: those spending under 10% of their income (after rent and mortgage expenses) on energy and those spending more than 10% (considered to have a high energy burden). It is as an indicator of energy burden rather than the precise measure of fuel poverty, which relies on data that was not available for this evaluation. It therefore does not take account of households who may be spending less than 10% of income but are under-consuming. It is important to note that there is no single, universally accepted definition of Fuel Poverty, and the criteria for determining fuel poverty varies across countries, including within the United Kingdom[35]. The 10% threshold remains widely used across the UK and by charities like National Energy Action to gauge fuel poverty and energy burden across different jurisdictions. Additionally, the survey also considered households that allocate 10-15% of their income to energy expenses and those spending 15% or more, marking a more extreme energy burden among households.

An income-capped option was explored for the GB evaluation but is not included in this report, as applying an income cap was not feasible due to the lack of space in the NI questionnaires which meant it was not possible to collect detailed information on rent or mortgage costs.

3.3.4 Qualitative depth interviews

Qualitative interviews were conducted with households who had benefited from the schemes and a range of stakeholders with the intention of obtaining in depth insights from those involved in developing, delivering and benefitting from the energy affordability schemes. Interviews lasted 45-60 minutes and were conducted between October 2023-January 2024 (Wave 1) and May-August 2024 (Wave 2).

Qualitative depth interviews were conducted with households in two waves to gather in-depth insight into people's experiences of the schemes and self-reported impacts on household finances, energy consumption, health and wellbeing (see Annex A for further details). The households were recruited to be broadly representative of characteristics including bill payment type, income and tenure and covered the following four groups:

- Those who received EBSS AFP and EPG who used electricity only;
- Those who received EBSS AFP and EPG who used both gas and electricity;

[34] This approach is similar to the one taken in Nock, D., Jones, A. J., Bouzarovski, S., Thomson, H., & Bednar, D. J. (2024). Reducing energy burden in the power sector: Metrics for assessing energy poverty. IEEE Power and Energy Magazine, 22(4). Both approaches calculate energy burden as the proportion of household income spent on energy. Our method further refines this by accounting for income after rent and mortgage expenses to provide a more accurate measure of disposable income.

[35] The definitions and measurement of Fuel Poverty vary across countries, including within the United Kingdom. For more information on the differences in Fuel Poverty definitions across the UK, refer to House of Commons Library briefing paper 8730.

- Those who received EBSS AFP and EPG via pass through or an intermediary (e.g. landlords);
- EBSS AF eligible households.

In Wave 1, the recruitment approach for household interviews comprised a mix of free-find and those who agreed to be re-contacted in the surveys. Household interviewees for Wave 2 were drawn from Wave 1 interviews and fresh participants were drawn from those who had agreed to participate in the main household and supplementary (EBSS AF) surveys. Across both waves of research, the sample of interviewees contained a mix of incomes, household types and energy payment. A detailed breakdown of the households engaged in both waves can be found in Annex A. The stakeholder interviews were recruited through a mix of free-find and contacts provided by DESNZ.

In addition, two waves of interviews were conducted with key stakeholders, including advocacy organisations for specific interest groups (people on low incomes, those with long term illnesses and farmers). One wave of interviews was conducted with delivery partners, energy providers and UREGNI.

Table 3.5: Overview of stakeholders consulted through the evaluation

	Wave 1			Wave 2		
	Number interviewed	Start date	End date	Number interviewed	Start date	End date
Households	44	December 2023	January 2024	49	May 2024	August 2024
Delivery Partners	2	October 2023	November 2023	-	-	-
Advocacy organisations	5	October 2023	November 2023	4	April 2024	August 2024
NI Energy Sector Stakeholders	5	November 2023	January 2024	-	-	-

Analysis of qualitative interview data

In both waves of qualitative interviews, a thematic approach was employed to analyse the data. This approach focused on identifying and examining recurring themes, patterns, and concepts within the data. To ensure a systematic and rigorous analysis, a four-step process was followed. This involved: transcribing the interviews, developing a comprehensive analytical framework, coding the transcribed text according to the framework, and conducting iterative analysis (see Annex A).

3.4 Secondary data analysis and modelling

The evaluation also drew upon several sources of secondary data providing insights into early outcomes (e.g. energy prices) and delivery effectiveness (e.g. monitoring and management information).

3.4.1 Price elasticity modelling

To provide an estimate of how the energy affordability schemes affected energy consumption during the intervention period, the evaluation team also used Almost Ideal Demand System (AIDS/QUAIDS) models of demand to calculate price elasticities of demand (the change of consumer demand for a product or service following a change of its price). To model the preferences of consumers, the analysis used a structural model. The functions in these models take prices and income as the inputs, and output price elasticities and expenditure, generally as a budget share. Price elasticities of demand are modelled as the percentage changes in energy consumption relative to the percentage changes in prices, for each household group included in the model. These models enable comparisons of the output function at varying price and income levels, such as with/without the EBSS AFP and EPG (see Annex C for details).

3.4.2 EBSS AF population estimation

At the design stage of the EBSS AF scheme, estimates were made by the then Department for Business Energy and Industrial Strategy (BEIS) of how many households were potentially eligible for this support. This was undertaken at pace and with the data available at the time, which was limited for some population groups. As part of this evaluation, London Economics conducted additional work to assess methods of estimating the size of the alternative funding (AF) populations in NI to understand how these estimates could be improved in the future with existing data and data that has since become available, particularly the publication of the 2021 census.

The research involved identification of data sources that could be used to estimate the size of the AF populations; exploration of the benefits and limitations of these datasets, including those used in the original estimates and any new ones; and the identification of methodologies that could be applied to these datasets to estimate the populations.

3.4.3 Analysis of monitoring data and management information

To understand how energy affordability interventions were implemented and to compare this to DESNZ's initial expectations, the evaluation team analysed a range of sources. This included DESNZ monitoring data on household reach, payment delivery, voucher redemption, and application numbers for EBSS AF. The data, current as of 22 June 2023, was provided by DESNZ through delivery dashboards. The team also reviewed final scheme reconciliation reports. Importantly, information from the schemes' external auditors was not available at the time of this report.

3.4.4 Desk based research and other secondary data

The evaluation drew upon several sources of secondary data providing insights into early outcomes (e.g. energy prices) and delivery effectiveness (e.g. monitoring and management information) and incorporated findings provided in a secondary data report. Data sources for this report included the NI Statistics Research Agency (NISRA) census of NI households and the House Condition Survey conducted by the NI Housing Executive. This report assessed household energy and non-energy consumption patterns, household composition data (e.g., household size, house type, tenure, age, location, and size), energy usage, and other factors influencing energy consumption. Second, the report examines typical household and individual finances, including income distribution, estimated energy costs, and insights from secondary surveys regarding concerns about bills, debt, or arrears. Finally, the report investigates fuel poverty and distributional impacts. This analysis explores the estimated incidence of fuel poverty based on location, tenure, and household type, considering the distribution of impacts. These contextual findings are taken into account in the contribution analysis in Chapter 6. All secondary data sources are listed in Annex B.

3.5 Methodology limitations

As with any evaluation approach, there are some limitations with our methodological approach, which are summarised below:

Reduced availability of energy secondary data sources in NI: This report analyses multiple secondary data sources to support the understanding of the NI specific context and the outcomes from the schemes. Compared with the GB evaluation, there are several data sources for which there is no equivalent NI counterpart. The main gap is for access to national energy use data which covers GB only: Smart meter data collected by the Smart Energy Research Laboratory (SERL)[36] and the National Energy Efficiency Data Framework (NEED)[37]. In addition, there are more limited sources of timely, robust datasets on a wide range of population level issues and fewer sources of NI data that can provide statistical profiles of household income, debt or expenditure.

Price and income elasticity estimation of energy affordability schemes: London Economics was commissioned to estimate price and income elasticities and apply them to various groups or estimates of groups for the NI economy. There were a number of limitations which have affected the robustness of this research, particularly when compared with the same research conducted as part of the evaluation of the GB energy affordability schemes. These limitations related to data availability and are explored further in Annex C. This was initial analysis which will be updated by the forthcoming UK impact and economic evaluation for these schemes. The next evaluation will use additional and more granular data to build upon the modelling presented in this report.

[36] Smart Energy Research Lab
[37] National Energy Efficiency Data-Framework (NEED)

Impact of General Election and school holidays: The timing of the General Election (called for 4th July 2024) meant that the Wave 2 qualitative fieldwork had to be paused, as UK government research could not take place during the pre-election period. This was compounded by the very small window that remained between the election taking place and school summer holidays, where stakeholder engagement and research are traditionally much more difficult to conduct. This impacted the eventual number of stakeholder interviews that were conducted. In addition, the EBSS AF Wave 2 survey closed earlier than planned on 3rd June 2024 due to the pre-election period, which impacted the overall response rate.

Recall / reliance on self-reporting: Surveys and depth interviews with households, energy suppliers and other stakeholders were conducted a considerable time after winter 22/23 and (although not as late) after winter 23/24. This may mean that some people struggled to remember what happened during these periods and also there is some risk that people could be confused about their experiences across the two winters.

Difficulties surveying non-applicants to assess reach of EBSS AF: This research was not able to fully investigate the extent of non- take up of the EBSS AF scheme in NI. For the reasons outlined earlier, the original 'snowball' approach (to conduct surveys with a sample of households potentially eligible for the EBSS AF scheme) had to be abandoned because of challenges in using a face-to-face approach with this unknown subgroup. Although some non-applicants to EBSS AF were interviewed during the nationally representative household survey, there were very few identified given the low incidence of this group in the general population. In addition, qualitative research with EBSS AF non-applicants (who may have been eligible for the scheme) could not be completed due to issues identifying and reaching these households in the time available for research.

Coverage of Home Heating Oil stakeholders: The evaluation did not include stakeholders from the wholesale and commercial oil distributors who would have been able to give evidence of the timing and nature of oil purchasing in NI which could have helped validate hypotheses about how households using oil for heating i responded to the energy crisis and benefitted from the schemes. This is a gap which is expected to be addressed as part of the forthcoming impact and economic evaluation.

Survey questionnaire: A restriction on space in the survey questionnaires meant that some topics were not explored fully. There were some questions that could have been framed differently or expanded to obtain more useful responses. For example, respondents were asked about strategies they used to be able to afford energy such as turning the heating down or reducing the length of time it was on, but were not asked how harmful such approaches might have been adopted.

Wave 2 response rates for the supplementary EBSS AF survey: There was a lower than anticipated response to the Wave 2 survey, which meant there was less scope for analysis across key sub-groups in the Wave 2 and the longitudinal samples.

4. Theory of Change

This chapter summarises the Theory of Change (ToC) developed to explain the causal mechanisms for the energy affordability schemes. It provides an overview of the programme ToC developed as part of this study and presents the hypothesised contribution claims that have been appraised in the outcome evaluation.[38] Scheme level ToCs are provided in Annex B and illustrate in detail how different schemes were expected to affect outcomes, reflecting nuance in the design and delivery processes, critical causal pathways and provide a summary of assumptions and risks associated with each scheme.

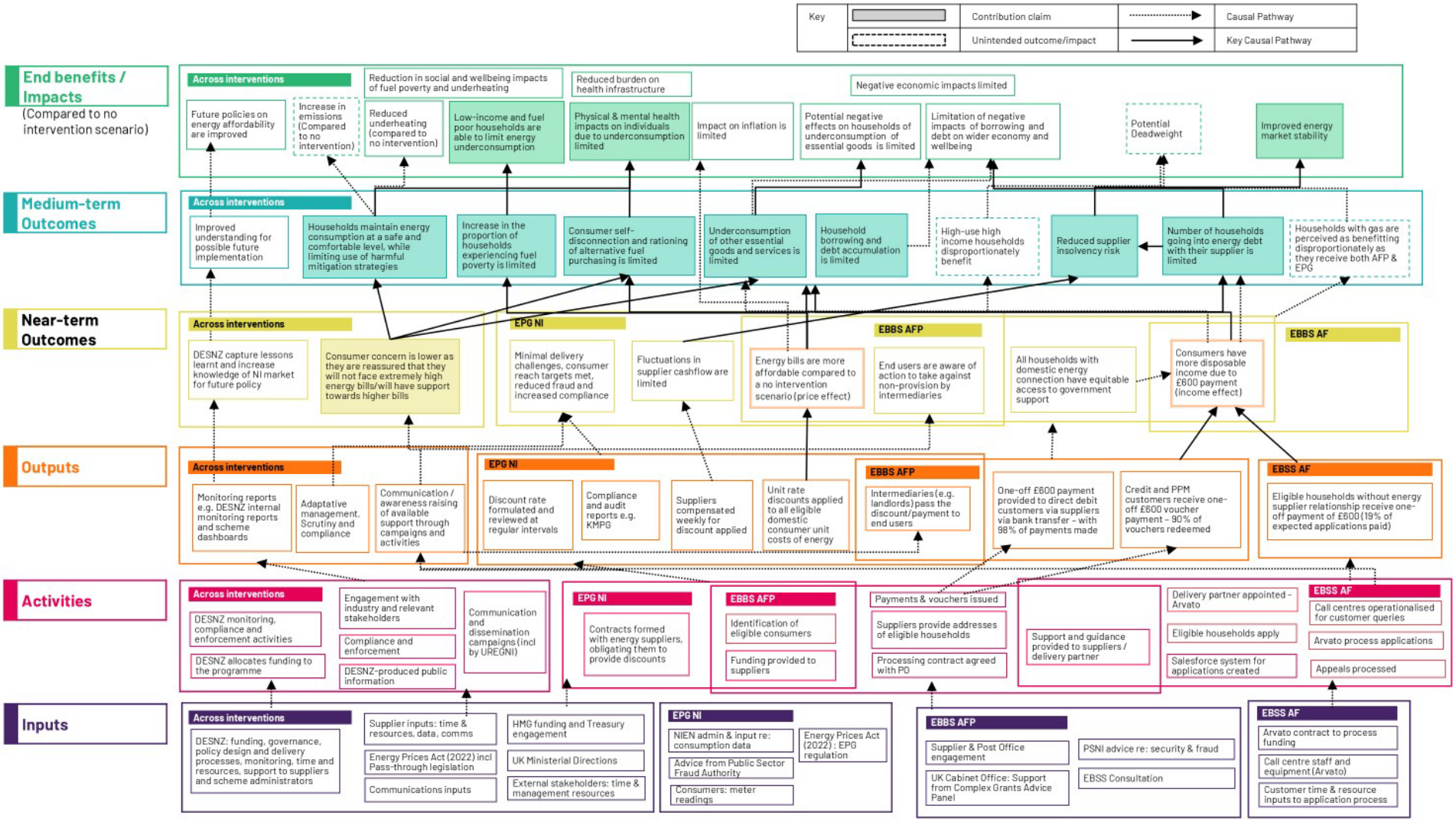
4.1 Overview of Theory of Change

Figure 4.1 summarises the key components of the ToC identified across the different energy affordability schemes. It provides an overview of the overarching ToC and its different components. The ToC presents the schemes' inputs (such as financial inputs, people or organisational inputs, infrastructure utilised), activities (activities that use inputs and result in outputs) and outputs (products of the scheme activities), as well as the hypothesised outcomes (expected social, economic, environmental, etc. changes experienced by beneficiaries and other stakeholders) and impacts (systematic changes expected in the long-term).

As highlighted above, the input stage encompasses all tangible and intangible resources essential for the initiative's execution (e.g. funding, policy design, monitoring resources provided by DESNZ, and data supplied by energy companies). These resources are then utilised in the activities stage, which outlines the specific actions, interventions, and processes undertaken to achieve the desired outcomes (e.g. funding issued to suppliers, communication activities by DESNZ and others, including UREGNI for EPG, contracts formed with energy suppliers, engagement with industry and relevant stakeholders and DESNZ monitoring activities). Outputs refer to the direct, measurable results of the scheme activities (e.g. the issuance of payments and vouchers, the provision of support and guidance provided to suppliers etc.). These outputs, in turn, lead to observable behaviours that key stakeholders have in response to the outputs at the near-term outcomes stage. This represents the initial impacts of the initiative, (e.g. consumers gaining reassurance about energy bills, DESNZ capture lessons learnt for future policy, energy bills become affordable for all eligible households and consumers have more disposable income). Building upon this foundation, the medium-term outcomes stage reflects the emergence of more significant and enduring changes, (e.g. underconsumption of energy and other goods and services is limited, consumer self-disconnection is limited and the number of households going into arrears is limited). Finally, the end benefits/impacts stage represents the long-term changes that the initiative is designed to achieve (e.g. limiting the number of

[38] For more background on Theory of Change design and development, see: https://analysisfunction.civilservice.gov.uk/policy-store/the-analysis-function-theory-of-change-toolkit/

Figure 4.1: Overarching Theory of Change for NI energy affordability schemes



additional households entering fuel poverty, limiting the physical and mental health impacts on individuals due to underconsumption and improved energy market stability).

Summary of hypothesised contributions

Based on the ToC developed for the energy affordability schemes, Table 4.1 provides a summary of the schemes' hypothesised contributions to different outcomes. Alongside these contribution claims, the evaluation also examined whether the schemes contributed to lowering households' level of concern about energy bills and household finances. This was part of the causal pathway for claims HC1, HC3 and HF3, where reassurance about energy affordability was expected to have facilitated the maintenance of energy consumption (including alternative fuels), non-energy consumption and limiting disconnection.

Table 4.1: Summary of hypothesised contributions to outcomes

Outcome Theme	Contribution	Description of the intended outcome	Contribution pathway - the schemes were expected to contribute to this outcome by . .
Household consumption	HC1	Schemes contribute to the ability of eligible households to maintain energy consumption at a safe and comfortable level, while limiting the use of other harmful mitigation strategies.[39]	(a) reducing the annual energy bill compared to a no intervention scenario (EPG), (b) providing additional income (i.e. financial support) that could be used towards any additional cost of energy (EBSS AFP/ EBSS AF), and (c) reassuring households that they would have support in affording their energy bills at a time when prices were rising so that the household would not feel the need to act out potentially harmful behaviours (all schemes).
	HC2	Schemes contribute to the ability of low-income households, or those classified as fuel poor, to limit energy underconsumption.	…as per HC1, but with a potential for greater magnitude of effect of slightly different behaviours amongst those classified as fuel poor.
	HC3	Schemes help limit the scale and duration of household disconnection from energy supplies and household decisions not to purchase additional energy supplies.	… reassuring households that financial support would be provided and/or by providing that support, the households would feel better able to recredit PPMs or buy more alternative fuel.

[39] Harmful mitigation strategies in this study were identified as being reducing spending on necessities (e.g. food, essential clothing, medicines), reducing other spending (e.g. holidays, meals out, days out), struggling to pay other housing costs or bills and taking on household debt/taking on more household debt (e.g. taking out loans, borrowing more, using more credit).

Household finances	HF1	The schemes contribute to minimising the number of households that would not be able to pay their energy bills and who go into energy debt with their supplier.	. . . a) applying the EPG discount to household energy prices, which – for households paying energy suppliers directly – would be received as a reduction in the price they pay; and (b) providing households with £600 that could be put towards the payment of their energy bills (through EBSS AFP and EBSS AF).
	HF2	The schemes contributed towards limiting the increase in the proportion of households experiencing fuel poverty.	. . the EPG, which was the primary tool for achieving this given that it targeted the 'energy price' driver of fuel poverty. The EBSS £600 payment in NI should also have been able to limit the breadth and depth of fuel poverty to the extent that (a) it increased income over the intervention period, and (b) if households put it directly towards energy costs, and if it were received in time for the effects of energy price rises to hit the household energy bill,[40] it would have also limited the real effect of the energy cost driver of fuel poverty.
	HF3	The schemes limited increases in household borrowing and cuts in other essential spending (e.g. food, essential clothing, medicines) and savings.	. . .(a) reducing the cost of energy bills and therefore reducing expenditure for households thus freeing up spending for other household items, (b) providing financial support that could be used on energy, but also – possibly – on other household spending.
Health and wellbeing	HW1	Schemes limit negative mental and physical health impacts arising from increases in energy bill costs (including limiting increases in instances of cold-related	… reassuring households that financial support would be provided and/or by providing that support, households would be less worried about being able to afford to heat their homes and would heat their

[40] These are two assumptions which the evaluation has tested.

		illnesses and mould in dwellings that can arise from under-heating).	homes to a level that prevented exacerbation of cold related illnesses.
Energy supplier market	ES1	Schemes limit the risks of energy supplier insolvencies through keeping customer debt levels low and delivering the schemes in a way that helps smooth cashflow fluctuations.	…(1) applying the EPG to household electricity and gas prices, which – for households paying energy bills – would be received as a reduction in the price they pay, (2) providing households with £600 that could contribute towards the payment of their energy bills (via EBSS AFP or EBSS AF), and (3) timely provision of support via the schemes (EPG, EBSS AFP and EBSS AF) ensuring that energy suppliers were not impacted by cashflow fluctuations.

5 Process evaluation findings

This section presents the findings of the process evaluation. It summarises the key findings from each intervention, structured around the key steps involved in delivering them. These are drawn from the process maps developed by the evaluation team which were developed during the inception phase of the evaluation, based on an extensive review of programme monitoring data, interviews and workshops with DESNZ staff. These are presented in Annex A and in this chapter prior to the discussion of each scheme. These provide a detailed outline of the processes undertaken between scheme set up and scheme closure, and the stakeholders involved. They include scheme design, set up, and communications; delivery of payments; compliance and assurance; and final reconciliation (where available). This chapter concludes by summarising the key findings across all three interventions.

5.1 Summary of findings per scheme

5.1.1 Energy Price Guarantee

Scheme design, set up (including contracting and signing), and communications

Northern Ireland Electricity Networks (NIEN) supported the administration of the scheme; NIEN representatives reported that as part of the scheme design and set-up, they drew on their existing reporting infrastructure and collaborated with the supplier community to identify the most suitable data source for the scheme, leading to the selection of 'use of system' data being chosen as the most appropriate option. Furthermore, NIEN noted that extensive legal work was undertaken to ensure that the proposed implementation approach did not expose NIEN to undue risk, which required intensive resource to meet tight timelines. In interviews, UREGNI noted that they invested time and resources to support DESNZ's understanding of the energy market and how regulation works in the NI context, particularly because of the regulated tariffs in place, which were different to the GB price cap.

From September 2022, energy suppliers, UREGNI and NIEN were engaged in the scheme design and set-up process. In interviews, energy suppliers noted that this collaborative approach facilitated a smoother rollout, with suppliers saying they were actively involved in shaping the delivery model. Despite the benefits of early engagement, in interviews UREGNI, NIEN and some energy suppliers noted that the communication from DESNZ, particularly in the initial stages, lacked clarity and a nuanced understanding of the NI energy market. These suppliers highlighted the need for more NI specific guidance, particularly around the lack of price cap in NI, emphasising the distinct differences between the GB and NI markets.

Although EPG was applied to bills automatically and did not require households to take any action to receive the support, awareness and understanding of the scheme were important to ensure that households would be reassured that their energy bills would not increase significantly and therefore maintain their energy consumption at safe levels. Across all schemes, the UK government provided high-level information in press releases, social media

posts and on gov.uk. In NI, information was also shared via UREGNI. Energy suppliers were obliged under the EPG scheme guidance to notify consumers of the reduced tariffs[41]. To support this, energy suppliers reported that they also ran communications campaigns and responded to queries. One energy supplier interviewee reported that they used at least three different methods, such as email, postcards, and letters to ensure households were contacted.

Reach and understanding of eligibility for EPG in NI

The EPG scheme was implemented as a discount on energy tariffs. The design of the scheme prevents a simple assessment of reach. The evaluation has only gathered evidence on perceptions of households about their eligibility. However, because the EPG scheme ran automatically there was limited understanding amongst households of having received this form of support and a lack of knowledge about how it was applied to their accounts. Therefore, perceived eligibility for EPG was relatively low. While the nationally representative household survey found that only 39% of households believed they were eligible for EPG, this does not reflect the actual number of households who would have received a reduction in their bills.[42] As an example of the discrepancy in understanding of eligibility, of the households that believed they were eligible, a greater proportion of homeowners believed they were eligible for the EPG (42%) than those renting from NIHE/housing association (24%).

Delivery of payments

There was a broad agreement amongst NI energy sector stakeholders that the EPG was easier and more straightforward to implement, when compared with EBSS AFP. In interviews, energy suppliers noted that the EPG scheme, which involved applying a discount to customer energy tariffs, aligned more closely with their typical business operations. One supplier stated that applying a reduction to tariffs was considered "Business as Usual activity for suppliers." Another interviewee noted that this meant they could leverage existing processes and systems for tariff adjustments, requiring minimal changes to their standard operating procedures. Unlike the EBSS AFP, which necessitated the establishment of new teams, development of IT portals, and significant changes to customer communication processes, the EPG could be integrated into existing workflows with relative ease.

Energy suppliers noted that initially, calculating and applying the correct EPG discount levels proved time-consuming. However, this process eventually became integrated into Business as Usual (BAU) operations. One supplier highlighted this initial difficulty, along with delays in obtaining customer meter readings, as the most significant challenges in delivering the EPG. To ensure accurate discount application, suppliers worked closely with DESNZ, particularly during the initial implementation phase. This collaboration involved monitoring the discount's application, making necessary reconciliation adjustments, and maintaining close oversight throughout the scheme's duration. At the time of the interviews, suppliers were engaged in a final reconciliation process with DESNZ and auditors to ensure all EPG payments were accounted for.

[41] Energy Price Guarantee: scheme documents
[42] The extent to which this finding reflects a lack of awareness or understanding of the scheme is discussed in Chapter 6.

In addition, the design of EPG directly limited a typical household's annual dual-fuel energy bill £700 in winter 2022/23, preventing an estimated rise of 75% in bills in the final quarter of 2022. Consequently, the EPG reduced the UK annual headline CPI inflation measure by 2.8 percentage points in October 2022, according to ONS [43]. These economic impacts are being assessed as part of the forthcoming Impact and Economic Evaluation.

Monitoring and compliance

Energy suppliers, in interviews, described their compliance and assurance regime for the EPG scheme as robust. The processes included monthly reporting requirements, with suppliers submitting detailed reports, including a Certificate of Compliance signed by their Finance Director to demonstrate adherence to scheme rules. These reports were subject to scrutiny by DESNZ, who appointed external auditors to audit suppliers and ensure the accurate implementation of the EPG. These external auditors conducted comprehensive checks on various aspects of the scheme, including governance systems, data validation, discount application, and reconciliation processes. They also investigated potential instances of fraud, error, and discrepancies, providing detailed reports to DESNZ highlighting any non-compliance issues.

The Utility Regulator, UREGNI, in interviews, outlined their role in the EPG scheme as primarily focused on monitoring supplier compliance with tariff-setting and communication requirements. This involved ensuring that suppliers accurately implemented the government-mandated discount, communicated it clearly to customers without misrepresenting it as their own initiative, and effectively managed the increased frequency of tariff reviews necessitated by the scheme. While UREGNI did not conduct direct audits of the EPG scheme, they reported that their oversight of supplier activities, including tariff changes and customer communications, served as a crucial assurance mechanism for the scheme's implementation in NI.

While energy suppliers acknowledged the necessity of these robust compliance and assurance processes to maintain transparency and accountability, they noted that the reporting requirements added to their administrative workload, particularly in the early stages of the scheme. There was initial confusion surrounding the reporting requirements, which were perceived as initially unclear and open to interpretation, leading to some suppliers having to resubmit monthly reports. Despite these challenges, all identified instances of non-compliance were considered errors rather than fraud by the auditors, often stemming from misunderstandings of scheme rules or data system issues.

Final reconciliation and scheme closure

The EPG scheme in both GB and NI entered an interim 'end state' on 30 June 2023, with the possibility of reinstatement if energy bills rose significantly again. The formal end date for the scheme in NI was 31 March 2024. The reconciliation processes for EPG differed between electricity and gas, due to the various data sources used for meter readings and the checks required by energy suppliers. For gas, reconciliation occurred directly on customer bills as

[43] ONS (2022) Consumer Price Inflation, October 2022.

meter readings were taken. For electricity, reconciliation was more complex, relying on NIEN read data for credit meters and vend data (converted to kWh) for prepayment meters.

One of the issues raised at the EPG design stage was the possibility of the use of keypad PPMs in NI leading to situations where PPM customers could have bought disproportionate amounts of credit at the subsidised unit rate before discount rates were reduced. Part of the closure processes implemented by DESNZ was to explore patterns of daily vend usage at an aggregate level. This investigation did not demonstrate any particularly abnormal vend behaviour by PPM households.

At the time of writing, the reconciliation process was still underway. Interviewees highlighted that the schemes, while having ended for customers on 30 June 2023, were still ongoing from an administrative perspective, with audits and reconciliation continuing.

5.1.2 Energy Bills Support Scheme and Alternative Fuel Payment

Scheme design, set up, and communications

Energy suppliers and delivery partners were involved in the development and design of EBSS AFP. Regular meetings and feedback sessions took place twice a week all the way through the development of EBSS AFP until late summer 2023 (and daily during the winter of 2022/23). Energy suppliers reported this level of engagement added to their workload, and one interviewee noted that this was because they were expected to maintain standard reporting and reconciliation requirements alongside EBSS AFP implementation. DESNZ viewed the intense engagement as necessary given the rapid rollout required by public and parliamentary pressure. Interviews with delivery partners identified the critical role of the pre-launch meetings in establishing robust logistical arrangements. They argued that these meetings facilitated the identification and mitigation of potential risks, such as concerns around cash reserves and fraud, ensuring these did not hinder the scheme's overall effectiveness. DESNZ considered this intensive collaboration crucial for developing a workable scheme that delivered consumer benefits, safeguarded public money, and mitigated delivery risks.

Energy suppliers interviewed also indicated that implementing the requirements led to an increased administrative burden for energy companies with more resources required to complete key tasks such as cleaning and validating customer databases (to facilitate payments), to inform customers about the schemes (by post, email, and text) and to staff customer helplines.

> *"We knew we needed to throw resources at it (EBSS AFP). We threw people at it - at one point we had an additional 100 people " (Energy Supplier)*

There was a consistent view amongst energy suppliers interviewed that distributing payments and vouchers was outside the remit of energy suppliers and this element of the support should have been delivered by a government agency, such as those who are already established to deliver social security payments. However, DESNZ feedback highlighted that suppliers' preferred models of receiving funds and distributing them using their own methods did not align with the scheme's objective of ensuring customers had funds to assist with all winter energy

costs, including HHO. As a result, suppliers reported they were asked to provide an estimate of eligible customers in a very short period of time, in advance of receiving the grant payment from DESNZ, which required a lot of data cleaning and increased staff time. As a result, energy suppliers reported the cost of implementation was much higher than they had anticipated, and this contributed to delays in delivery.

On balance, this was a unique scheme that was implemented due to exceptional circumstances, and at pace so it was inevitable that it was not straightforward for all stakeholders involved and led to some additional costs and delays.

Reach of EBSS AFP scheme

At the start of the scheme, EBSS AFP was expected to make 840,300 payments to customers. The number of payments made, based on scheme management information was 819,470 or 98% of those expected. Of these, 60% (497,110) were paid via vouchers, 98% of which were redeemed. EBSS AFP had a budget of £512 million, of which £492 million was issued[44].

This suggests that both uptake and redemption of vouchers was in line with scheme targets, with a high proportion of EBSS AFP bank transfer payments (99%) and vouchers (98%) delivered as expected.

Delivery of payments

Energy suppliers emphasised that the EBSS AFP, with its one-off payment structure, created a significant administrative burden for suppliers. In interviews, some suppliers noted they found the manual processing challenging, while other suppliers faced complexities in integrating the scheme into their existing systems. Some suppliers reported customer confusion regarding the scheme's details, such as eligibility criteria and payment timelines. This lack of clarity led to an increase in customer queries and complaints, which suppliers suggested further added to their administrative burden. DESNZ feedback acknowledges the administrative challenges faced by energy suppliers in implementing the EBSS AFP's single, lump-sum payment structure. While a monthly payment model (similar to the GB scheme) was considered, DESNZ ultimately determined, after consultation with suppliers, that a single payment better addressed the specific needs and circumstances of the NI context, despite the inherent complexities and risks associated with this approach.

Advocacy group representatives noted that using the Post Office for voucher redemption was accessible for most households. This was due to the existing Post Office accessibility requirements and geographical coverage across NI meaning most households did not have far to travel to redeem their voucher. For the delivery of vouchers, a phased approach was taken, which involved staggering voucher delivery by supplier and location. In interviews, delivery partners emphasised that this strategy helped to ensure sufficient cash availability across Post Office branches and adequate staffing levels to manage transactions. Furthermore, collaboration with the Police Service of Northern Ireland (PSNI) ensured a visible security presence, addressing initial concerns regarding customer and cash safety. However, one

[44] DESNZ (2024). Energy Bills Support Scheme and Alternative Fuel Payment NI: payments made by electricity suppliers to customers

notable challenge involved instances of missing or incorrect postcodes, particularly in rural areas of NI where multiple locations share the same address or postcode. Despite the vast majority (98%) of payments being made as expected,[45] delivery partners reported that the above challenge created inefficiencies in terms of resourcing and time delays for the customers, which were compounded by industrial action taken by Royal Mail. Interviewees noted that this resulted in extra costs for the scheme which were not (and realistically, could not have been) considered in initial planning stages. The extra costs related largely to additional cash vans and overtime costs due to a required increase in capacity and administration.

Compliance, assurance and audit processes

Energy suppliers reported that they established robust compliance procedures to ensure the effective delivery of the EBSS AFP scheme. These procedures, as reported by suppliers, were subject to scrutiny through multiple layers of audits conducted by internal teams, UREGNI, and DESNZ. These audits aimed to verify the accurate distribution of funds, adherence to scheme rules, and the effectiveness of fraud prevention measures. While energy suppliers acknowledged the crucial role of these audits in maintaining the integrity of the scheme, they noted that the process added to their administrative burden, extending their involvement in scheme related activities beyond the official end date.

UREGNI's role, as described by representatives in interviews, primarily focused on monitoring the overall market impact of the scheme, particularly concerning consumer debt levels, although specific data on debt levels remained confidential. Despite the rapid policy shift from a credit-based system to voucher-based disbursement, both UREGNI and energy suppliers reported a low incidence of fraud. Suppliers reported that instances of suspected fraud were less than 0.5% of scheme recipients and when reports were made, they were immediately reported to the police. However, UREGNI noted that communication, particularly from energy suppliers to customers regarding the change in disbursement method, was lacking and led to confusion and increased pressure on both suppliers and the regulator.

Final reconciliation and scheme closure

The EBSS AFP scheme officially ended on 30 June 2023 and all vouchers were required to be redeemed by this date. Interviewees and DESNZ internal management information highlighted that the schemes, while having ended for customers, were still ongoing from an administrative perspective, with audits and reconciliation still underway.

DESNZ data shows that there was a consistently high level of compliance by energy suppliers in the distribution of the payments, with 98% of all anticipated payments being made (Table 5.1). As shown in Table 5.2, of the two per cent of cases where payments were undelivered, 57% (11,810) of these were unredeemed vouchers, while 43% (9,070) fell under ‘other exceptions’. Other exceptions included accounts where it was not possible to make a payment

[45] Outlined in Table 5.2 and discussed further below

(such as vacant properties), therefore reducing the population of eligible payments.[46] All suppliers made several attempts to establish contact with customers with unredeemed vouchers during scheme delivery. Overall the processes established to deliver the EBSS AFP payments in NI were effective in delivering the vast majority of payments.

Table 5.1: Support delivered through the EBSS AFP scheme in NI

Electricity payment type	No. of households	No. of payments delivered to customers		Value of payments delivered (£ million)
		Number	% of total	
Direct debit	322,640	322,360	99.9%	193.4
Credit	136,090	124,730	92%	74.8
Keypad / prepayment meter	381,570	372,380	98%	223.4
Total	840,300	819,470	98%	491.6

Source: DESNZ Domestic energy affordability grant schemes: statistics, August 2024[47]

Table 5.2: Undelivered payments through the EBSS AFP scheme in NI

Electricity payment type	No. of undelivered payments		Of which no. of unredeemed vouchers	Of which 'Other exceptions'
Direct debit	250	0.01%	130	120
Credit	11,350	8%	4,270	7,080
Keypad / prepayment meter	9,280	2%	7,410	1,870
Total	20,880	2%	11,810	9,070

Source: DESNZ Domestic energy affordability grant schemes: statistics, August 2024[48]

[46] Where there were unredeemed vouchers, it is possible that a payment may have been made if contact with the customer had been established. When calculating the percentage of unredeemed vouchers, the number of unredeemed vouchers should be compared with the number of payments due minus other exceptions.
[47] .Domestic energy affordability grant schemes: statistics
[48] Ibid.

5.1.3 Energy Bills Support Scheme Alternative Fund

Scheme design, set up and communications

The EBSS AF scheme was introduced to support households who were ineligible for EBSS AFP because they did not have a direct relationship with a domestic electricity supplier. Household applications were processed via a contracted delivery partner, Arvato. The scheme operated through a centralised application process, offering both online and telephone options, and Arvato provided a telephone helpline to support the process. In interviews, Arvato reported that they had to move at pace and work very closely with the DESNZ policy team to create processes (such as training materials) and to ensure that applications were processed as quickly as possible.

Communications campaigns related to EBSS AF were introduced across NI, intended to reach all households, particularly vulnerable or harder to reach groups, examples being households on low incomes, older people, those living in rural areas and those without a direct relationship with an energy provider. Advocacy organisations, such as Advice NI and Age NI, also provided advice about all of the schemes on their websites and DESNZ also worked with Ulster Farmers Union to understand circumstances and means to reach farming households.

Awareness and understanding of EBSS AF were particularly important to ensure that households could apply for the support. Unlike the other schemes, households had to take an active role in order to obtain their payment. However, as discussed in the following section on households' perceptions, awareness of the EBSS AF scheme was found to be lower than other schemes in the Wave 1 nationally representative survey, with only a quarter (24%) reporting awareness of EBSS AF.[49] Interviews with scheme delivery partners and representatives of advocacy organisations indicate that there was a lack of awareness about the EBSS AF scheme and eligibility, particularly for older people, and those living in caravans, park homes or care homes. Advocacy organisations emphasised that the communications campaign for the scheme did not sufficiently target groups such as households on low incomes, older people, those living in rural areas and others, which was perceived as resulting in fewer applications than expected. This aligns with findings from the supplementary survey which show it was most common for those aware and eligible for the EBSS AF scheme to have heard about it by word of mouth (36%), with 28% finding out about it from TV and/or news radio.50

Reach of EBSS AF scheme

It was estimated at the start of the scheme that around 28,000 households in NI would be eligible for this support. The final total number of EBSS AF applications paid and processed was 5,340 (19% of that originally expected), while 2,460 applications were cancelled and 470 were rejected (Table 5.3). Whilst it is hard to know the extent of low take up due to challenges in estimating the size of the EBSS AF population, this was much lower than expected.

[49] Wave 1 household survey: A1. In order to reduce the impact of increased energy costs, the Government introduced some support measures for households from Winter 2022/23. Which, if any, of the measures listed below were you AWARE of before today?

[50] Wave 1 supplementary survey: A11a. From which of the following sources, if any, did you find out about the Energy Bills Support Scheme Alternative Funding i.e., where a one-off £600 payment is given to households that did not have a direct relationship with their domestic electricity supplier?

Farmers represented the largest proportion of applicants (56% of total applications) followed by care homes (14%).

Table 5.3: Number of EBSS AF applications by user group in NI

	Delivered	Cancelled	Rejected	Total
Care homes	290	100	[c]	390
Farmers	3,080	1,400	150	4,630
Heat Networks	80	50	10	140
Homeowner	740	340	80	1,160
House Boats	20	[c]	[c]	20
Park Homes	230	60	[c]	300
Temporary Accommodation	190	40	20	260
Tenants (private)	380	220	100	700
Tenants (council/ association)	110	50	30	190
Travellers	40	50	20	110
Other	180	140	30	350
Total	**5,340**	**2,460**	**470**	**8,260**

Source: DESNZ Domestic energy affordability grant schemes: statistics, August 2024[51]

London Economics conducted additional research to support the evaluation which reviewed the benefits and limitations of the data sources that were used to produce the original estimates when the scheme was designed, and identified the most recent or alternative data sources, where available (see Annex C for further detail). This revealed the following key findings:

DESNZ estimates for eligible households in caravans and other mobile or temporary structures, as well as social and private renters, were based on the size of the population (i.e. number of individuals), rather than the number of households. Given eligibility for the schemes was per household rather than per individual, this likely led to an overestimation of these eligible groups. For example, when looking at number of households rather than the total size of the population for private and social renters, the numbers estimated to be eligible reduce by almost 50%.

[51] Source: DESNZ (August 2024). Domestic energy affordability grant schemes: statistics. All data have been rounded to the nearest 10 and some totals may not sum due to rounding. Where Arvato have reported 10 or fewer customers, statistical disclosure controls have been used to suppress values to protect individuals. Some totals may not sum also due to suppressed values.

Estimates for care home residents were based on the number of residential and nursing care packages in 2020 (11,808). However, data from the 2021 Census (which was not available when the original estimates were produced) indicates higher numbers of residents in care homes (13,200), suggesting this is likely a poor proxy for the true size of the care home population, of which a proportion will self-fund some of their care home costs. This research could not identify any publicly available data on the proportion of care residents in NI that fund their own care.

However, whilst there were underestimations of the expected eligible population, this did not fully account for the limited take up. Analysis of the survey data showed awareness of the schemes significantly predicted take-up relative to the estimated population size. This point then further suggests the importance of communication strategies for maximising uptake in the estimated population.[52]

Delivery of payments

Arvato reported they did not achieve the anticipated application numbers and attributed this, primarily, to low public awareness of the scheme. In interviews, Arvato reported many applicants required additional assistance with the online application process. This need for support was higher than Arvato had anticipated, and was perceived as being due to an older demographic and limited internet access in some regions. The interviewee noted that some farmers found the online processes difficult and often opted to apply through the contact centre.

"We had to deal with a lot of elderly people who didn't have digital skills." Arvato

The Wave 1 supplementary survey showed that when asked whether they agreed or disagreed with statements about the scheme, while a majority (54%) agreed or strongly agreed that the EBSS AF application process was 'clear and easy to understand', a significant minority (29%) disagreed or strongly disagreed. In addition, while 57% agreed that the application process was quick, 27% disagreed.[53] The supplementary survey also showed that 59% of EBSS AF recipients experienced some form of problem with the scheme. The most common problems reported were issues with proof of eligibility (27%) and receiving the payment later than expected (16%).[54] Although based on small sample numbers, the survey also suggested that some of those living in park homes or mobile homes had experienced issues with providing proof of eligibility during the application process[55].

In addition, advocacy organisations also noted that the application process presented significant hurdles for some groups. Interviewees representing a range of groups (such as

[52] A caveat is also needed here that awareness may also be correlated with factors that are correlated with any estimation error. Therefore, we cannot firmly conclude the extent that awareness is causing the difference between the population estimates and actual take up

[53] Wave 1 supplementary survey: C7. To what extent do you agree or disagree with the following statements about the application process for the Energy Bills Support Scheme Alternative Funding (EBSS AF) payment of £600? – a) The application process was clear and easy to understand, b) Making the application was quick

[54] Wave 1 supplementary survey: C8. Which, if any, of the following problems did you experience with the Energy Bills Support Scheme Alternative Funding (EBSS AF) payment of £600?

[55] Wave 1 supplementary survey: C8. C8. Which, if any, of the following problems did you experience with the Energy Bills Support Scheme Alternative Funding (EBSS AF) payment of £600?

older people, those with health conditions plus specific interest groups), highlighted the cumbersome nature of the application form and the extensive documentation required to prove eligibility. This burden of proof, interviewees suggested, was particularly challenging for those without a direct relationship with an energy supplier and hindered their ability to access the scheme's support. Furthermore, interviewees suggested that farmers encountered additional complexities because the scheme's design did not adequately account for the specific circumstances of the farming community. The intricate tariff system and the frequent overlap between personal and business bank accounts created confusion and often led to ineligibility. Some interviewees reported that this was likely to have excluded this group from accessing the schemes.

Compliance, assurance and audit processes

The compliance, assurance and audit processes for EBSS AF were intended to incorporate real-time reporting, routine checks and audits conducted by DESNZ, and a DESNZ-managed platform that handles the monthly ingestion, processing, storage, and publication of scheme data. Additionally, a Post-Payment Assurance System (PPAS) was intended to be used to ensure that all payments had been delivered in line with conditions for eligibility. Interviewees and DESNZ internal management information highlighted that the schemes, while having ended for customers, were still ongoing from an administrative perspective, with audits still underway.

5.2 Summary of overarching findings

5.2.1 Household experience of the schemes

Perceptions of scheme communications

The UK government, in collaboration with consumer groups and representative bodies, implemented awareness raising activities across GB and NI to maximise the reach of the energy affordability schemes. In NI these activities included announcements by Ministers on social media, engagement with energy suppliers and consumer groups, and announcements on the NI government webpage. However, in interviews with URGENI, NIEN and energy suppliers, a communications gap was highlighted. Interviewees noted that the UK government's communication and awareness raising activities primarily focused on the GB schemes, which resulted in limited available information relating to the NI schemes. In addition, in interviews with energy suppliers, it was noted that there was no budget provided by DESNZ to cover customer communications, including postage costs.

Nonetheless, it was implicit in the design of the schemes that all households, including vulnerable and hard-to-reach groups, would need to be aware of and understand about availability of the support. It was expected that by informing consumers about the support, consumers would then take the necessary steps to benefit from the schemes, such as redeeming vouchers (for EBSS AFP) or submitting applications (for EBSS AF). Also, in order to reduce underconsumption and other negative behaviours, all of the schemes, including the EPG, which was automatic and not immediately visible, implicitly depended upon increased

awareness to provide reassurance to households concerned about rising energy bills. However, in interviews, households frequently cited a lack of clear and timely communication from both the government and energy suppliers about the schemes. Interviewees didn't feel communications were simplified enough and reported that more easily digestible information would have been useful. They desired more proactive and personalised information, particularly regarding eligibility, payment timelines, and the details of each scheme. Recipients were generally aware of the AF scheme, with many learning about it through direct outreach initiatives and community-led information sharing but were less aware of formal communications. In interviews with those eligible for EBSS AF support, some interviewees reported that they had to actively seek out information for this scheme, or only heard about it through word of mouth. This is supported by the Wave 1 supplementary survey which found that word of mouth was the most common way households found out about EBSS AF, with over a third (36%) saying this.[56]

> *"There was no real EPG communication, messages were inconsistent and confusing." AFP recipient*

Household awareness of the schemes

Amongst participants in the Wave 1 main household survey, awareness was higher for some schemes than for others. Of those surveyed, two-thirds reported they were aware of EBSS AFP (65%), while two in five (43%) reported they were aware of EPG, and a quarter (24%) reported awareness of EBSS AF.[57] In depth interviews, households generally indicated a good level of awareness of having received the EBSS AFP intervention, while awareness of having benefitted from EPG was less common amongst those eligible households interviewed. Households usually highlighted their awareness of the schemes in terms of how they received the saving (i.e. a discount on their bills or one-off payment), rather than knowing the specific name of the scheme. This indicates that the difference in awareness could partly be explained by EPG being a 'hidden scheme' (via a discount on the unit cost of energy), compared with the more visible EBSS AFP where a single lump sum was received through vouchers or directly into bank accounts. Likewise, in depth interviews with households eligible for EBSS AF, there was a general awareness of the scheme, but understanding of the scheme eligibility and application processes was lower. Some interviewees noted they heard about the scheme through word of mouth or had to proactively seek out relevant information. In depth interviews, advocacy organisations perceived that the AF scheme was not well enough advertised and believed that many eligible households would not have been aware of the support available (and therefore not accessed it through the application process).

Household awareness of EBSS AFP and EPG schemes varied between demographic subgroups and housing types. Wave 1 survey results indicated that across EBSS AFP and EPG, owner occupiers were more likely to state that they were aware of the schemes (68%

[56] Wave 1 supplementary survey: A11a. From which of the following sources, if any, did you find out about the Energy Bills Support Scheme Alternative Funding i.e., where a one-off £600 payment is given to households that did not have a direct relationship with their domestic electricity supplier?

[57] Wave 1 household survey: A1. In order to reduce the impact of increased energy costs, the Government introduced some support measures for households from Winter 2022/23. Which, if any, of the measures listed below were you AWARE of before today?

and 48% respectively), when compared with private renters (57% and 30%) or those who rent from a housing association (30% and 25%). As would be expected, those using HHO as their main source of heating were more aware of EBSS AFP compared to those with gas central heating, who were more aware of EPG. A higher proportion of households who paid for their bills via direct debit than those who paid on receipt of a bill or through a PPM reported that they were aware of the schemes. Households with middle to high household incomes (£50,000-£74,999 p/a) were more aware of EBSS AFP and EPG, when compared with lower income households (under £25,000 p/a).

Awareness of the EBSS AF scheme was consistently low across all population subgroups and housing types. However, there was some small yet significant variation by location of the household: awareness was higher among residents of Belfast (31%), compared with those in Mid and East Antrim (21%), Ards and North Down (20%), Lisburn and Castlereagh (20%), and Newry, Mourne and Down (18%).

Household knowledge of scheme specifics

Household understanding of how the EBSS AFP and EPG schemes were applied varied by the complexity of each intervention. The EBSS AFP scheme was broadly understood by households, while there was more confusion around the EPG scheme. In the main household survey, two-fifths (39%) of eligible households (those aware of the relevant schemes) believed that they were eligible for EPG, compared to 70% who believed that they were eligible for EBSS AFP.[58] In interviews, households reported that they generally understood how the EBSS AFP scheme operated (that they would receive a one-off payment), whereas recipients of the EPG had more limited awareness of how the scheme operated. In addition, many of those who had received EPG noted they were not aware of the monetary value of their saving and did not understand the difference the scheme made to their overall bills. This lack of understanding and confusion around eligibility of the EPG scheme should be noted for future communications with households over similarly designed support in the future.

Satisfaction with the interventions and experience of receiving support

Overall the majority of households surveyed were satisfied with the value and scale of support provided. In the Wave 1 main household survey, the majority (78%) of households benefitting from EBSS AFP or EBSS AF were satisfied with the amount of financial support provided.[59] In interviews, households generally indicated that the support was welcomed, particularly for EBSS AFP and EBSS AF households who typically saw the payment as a helpful bonus and expressed that they were grateful for the financial support. The survey also found that 77% of EBSS AFP or EBSS AF households were satisfied that all households received the payment[60] and two thirds (66%) of those aware of the EPG scheme were satisfied that all households with

[58] Wave 1 household survey: A2. Do you think your household was ELIGIBLE for the following Government support measure(s) (regardless of whether you received them)?
[59] Wave 1 household survey: H1. Considering everything you know about the [EBSS AFP or EBSS AF] how satisfied or dissatisfied are you with the following aspects of the scheme? The amount of financial support given (£600)
[60] Wave 1 household survey: H1. Considering everything you know about the [EBSS AFP or EBSS AF] how satisfied or dissatisfied are you with the following aspects of the scheme? That all households received the £600 payment

domestic energy contracts received the same level of discount per unit price.[61] In interviews opinions were more mixed. Some interviewees suggested that the universality of the scheme was a positive, however, others suggested that a means-tested approach would have been more effective in directing resources to those most affected by the energy crisis.

It was also evident that the £600 lump sum support, was perceived to have more of an impact than EPG, probably because it was a more tangible mechanism. One householder said during an interview that:

> *"It felt like a life saver – the unit cost reduction went over our heads, but the £600 was the thing we focused on" (EBSS AFP and EPG recipient, Wave 1)*

Households were also generally satisfied with how the interventions were applied. The vast majority (92%) of respondents in the Wave 1 main household survey indicated that they were satisfied with how the £600 payment was made to their household[62] and 73% of those aware of the EPG scheme said they were satisfied with how the discount was applied (automatically to energy bills across all tariffs).[63] In the Wave 1 supplementary survey, 83% of EBSS AF households said they were satisfied with how the £600 payment was paid to their household.[64] In interviews with households views were more mixed, with some expressing that they were happy with how the intervention was applied, whereas others reported they would have preferred to receive smaller or more regular payments. One participant felt smaller payments would have been easier for households to manage, and others noted that it would have provided more sustained support over the winter months.

Wave 1 of the main household survey also indicated that 82% of EBSS AFP households were satisfied with the timeliness of the payment[65] and 60% of those aware of the EPG scheme were satisfied with the time period the EPG provided a discount over (November 2022 to March 2023).[66] In the Wave 1 supplementary survey, two-thirds (66%) reported that they were satisfied with the timeliness of receiving the EBSS AF payment.[67] In interviews, two EBSS AFP households noted they would have preferred to receive the payment earlier, as this would have supported them to pay their bills through the winter months. In interviews, some EBSS AF households expressed anxiety and frustration over the wait in receiving their payment, highlighting how the uncertainty exacerbated financial stress and impacted their ability to plan for the winter months.

[61] Wave 1 household survey: H2. Considering everything you know about the Energy Price Guarantee, how satisfied or dissatisfied are you with the following aspects of the scheme? That all households with domestic gas and / or electricity contract received the same level of discount per unit price
[62] Wave 1 household survey: H1. Satisfaction with statement 'How the £600 payment was paid to your household'
[63] Wave 1 household survey: H2. Satisfaction with statement 'The discount was applied automatically to energy bills across all tariffs'
[64] Wave 1 supplementary survey: H1. Satisfaction with statement 'How the £600 payment was paid to your household'
[65] Wave 1 household survey: H1. Satisfaction with statement 'The timeliness of receiving the payment'
[66] Wave 1 household survey: H2. Satisfaction with statement 'The time period the Energy Price Guarantee provided a discount (November 2022 to March 2023)'
[67] Wave 1 supplementary survey: H1. Satisfaction with statement 'The timeliness of receiving the payment'

In the Wave 1 main household survey, the majority reported they were satisfied with the universality of the scheme; 77% reported they were satisfied that all households received the £600 payment, and 11% reported dissatisfaction with this.[68] Household interviews, however, show a more nuanced perspective. While interviewees reported some dissatisfaction with the universality of EBSS AFP, with some participants feeling it was unfair for wealthier households to receive the payment, many also recognised the benefits of a universal approach. These participants noted the simplicity of the universal approach allowed for a quicker scheme rollout, whereas a means-tested approach would have been too slow and complex to implement which would have delayed much needed aid. Some participants also thought that the universal approach was fair, saying that since the money for the scheme came from taxpayers, all taxpayers deserved to benefit. Other participants noted that the universal approach helped to avoid the discrimination and stigma which can come from means-tested benefits schemes.

The vast majority (92%) of EBSS AFP households surveyed in Wave 1 reported that they did not experience any problems with the overall scheme.[69] Of the 6% who reported problems these were most commonly related to receiving the voucher later than expected , issues redeeming the voucher or receiving the payment later than expected.

The supplementary survey reported that around half (53%) of EBSS AF households reported experiencing some form of problem with the scheme, whilst two in five (41%) reported that they did not have any problems.[70] Of those who did report problems, these were most commonly related to issues with proof of eligibility (27%), receiving the payment later than expected (16%), late payment or slow processing of application (13%) or wrongful rejection or disputes over eligibility (12%). Problems with the scheme were more likely to be reported by those living in alternative or mobile housing (74%) compared with those who lived in semi- detached, detached houses or bungalows (50%). In the qualitative interviews, households and delivery partners noted issues with the application processes, such as difficulty proving eligibility or in accessing the online application system.

5.2.2 Delivery processes and stakeholder experience

Delivery processes

Energy sector stakeholders emphasised that the schemes were designed and implemented in NI at great pace, and they noted the dedication of the DESNZ staff to ensure that NI households received support in the absence of a functioning NI Executive. While delivery partners felt the implementation of the EPG scheme was effective, energy suppliers faced more challenges and administrative burdens with the EBSS AFP scheme.

In interviews, delivery partners noted that there were effective working relationships, collaboration and communication processes established with DESNZ. Arvato and Post Office Ltd reported that they felt supported throughout the process, receiving adequate information

[68] Wave 1 household survey: H1. Satisfaction with statement That all households received the £600 payment
[69] Wave 1 household survey: D1. Which, if any, of the following problems did you experience with the overall Energy Bills Support Scheme and the Alternative Fuel Payment.
[70] Wave 2 supplementary survey: C8. Which, if any, of the following problems did you experience with the Energy Bills Support Scheme Alternative Funding (EBSS AF) payment of £600?

and assistance to deliver the schemes. They reported that this collaborative approach allowed for effective risk management, with partners able to report and resolve potential issues. However, some energy suppliers interviewed felt their views were not adequately considered in the design and implementation of the Northern Ireland schemes, despite regular meetings. They suggested greater involvement of NI energy sector stakeholders could have designed schemes with fewer administrative complications for their operations. In interviews, suppliers explained that managing different transaction types, payment methods, and legacy billing systems added complexity to the rollout of the EBSS AFP scheme, making it difficult to adapt efficiently. Smaller suppliers relied heavily on manual processes, which further exacerbated the administrative burden. They felt this strain on their resources could have been avoided.

The EPG scheme was perceived by energy suppliers as relatively straightforward and efficient to implement and aligned more closely with their BAU operations, meaning they were able to leverage established processes for implementation and communication. In contrast, energy suppliers emphasised that the EBSS AFP scheme presented significant challenges due to the one-off payment structure and the need to verify eligibility across a range of customer types and legacy systems. This deviation from standard practices meant some suppliers had to implement new systems and processes, which proved to be more manual and required additional time and resource.

Energy suppliers identified several challenges that they encountered during delivery of the schemes. In interviews, suppliers noted that the delayed release of final guidance (from UREGNI and NIEN) , led to implementation difficulties. They also had a perception that their expertise had not been fully utilised. They felt that if they had been consulted earlier in the process, and their views and suggestions taken onboard, they could have provided valuable insights that would have made the rollout smoother. The reliance on legacy systems, particularly PPMs, also posed significant challenges in accurately applying discounts and reconciling payments for EPG. These systems lacked the flexibility and functionality to accommodate the scheme requirements, leading to errors and delays. There were also burdens for some energy suppliers from customer confusion and increased volume of queries and customer calls. One interviewee estimated that during the implementation of the scheme, they had a 200% increase in call volumes, reaching a peak of 25,000 calls per month suggesting some level of anxiety over bills and/or the process for obtaining support.

Communication with DESNZ

Suppliers acknowledged the efforts of DESNZ to engage with them through various channels, including regular supplier forums and bilateral meetings. However, the pace of the early implementation of the schemes, meant that the initial stages were described as being marked by confusion and a lack of timely guidance, particularly for the EBSS AFP scheme. Some suppliers felt that the lack of clear and consistent communication from the outset made it difficult to prepare adequately and manage customer expectations. The communication surrounding the EPG auditing process was also criticised by some suppliers for its lack of clarity and timeliness. This led to unexpected compliance issues and a sense of frustration. Representatives from DESNZ acknowledged these challenges, noting the schemes' rollout in

Northern Ireland was extremely rapid due to intense public and parliamentary pressure. This created a demanding environment for both suppliers and officials.

6. Outcome evaluation findings

This section presents the findings for the outcome evaluation, using contribution analysis[71] to examine evidence of the change occurring over the intervention period and the extent to which the schemes caused ('contributed to') this change. Findings are presented across the four key themes of household finances, household consumption, health and welfare, and energy suppliers. Each of these sub-sections is structured as follows:

- The **contribution story** being tested
- Evidence of **change over time** (of the issue being considered)
- **Magnitude, prevalence and heterogeneity** (of the issue being considered) over the intervention period
- **Agreement of evidence** with hypothesised contribution
- **Interpretation of the evidence** and discussion of the **risk of bias** – strength of evidence[72].

6.1 Household energy consumption

6.1.1 Contribution Claims HC1 & HC2: Maintaining energy consumption

HC1: Schemes contribute to the ability of eligible households to maintain energy consumption at a safe and comfortable level, while limiting the use of other harmful mitigation strategies[73].

HC2: Schemes contribute to the ability of low-income households, or those classified as fuel poor, to limit energy underconsumption.

The contribution story being tested

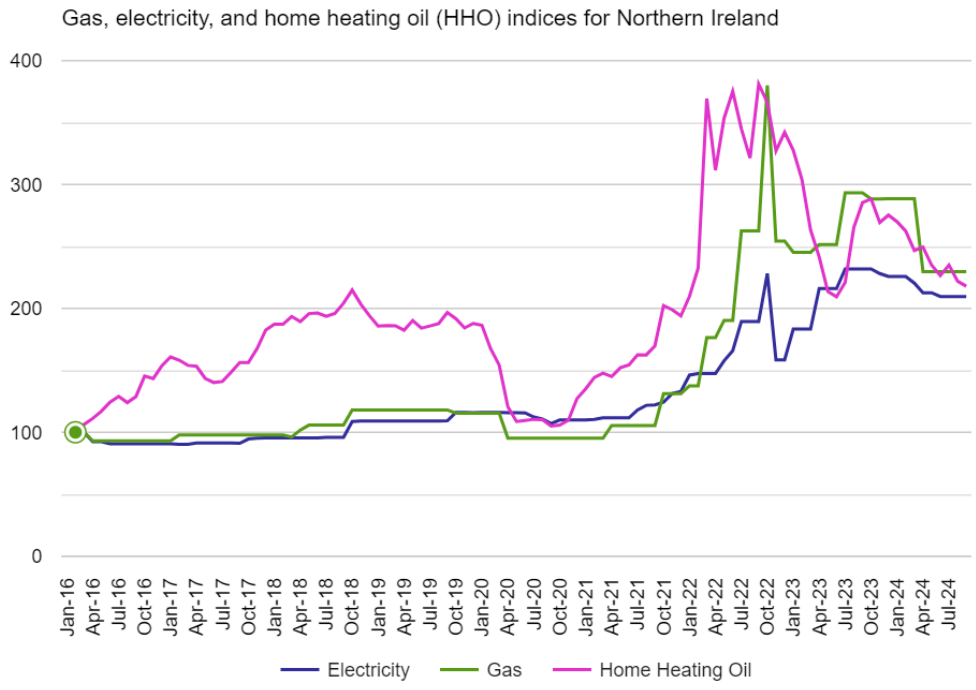
Wholesale energy prices increased rapidly from mid-2021. The CCNI's home energy composite index (see Figure 6.1) shows prices increasing from even before 2021 for NI households; rising from an index (base being in 2016 prices) of just over 100 in September 2020 to almost 400 in October 2022.[74]

[71] Mayne, John. (2011). Contribution analysis: Addressing cause and effect. Evaluating the Complex. 53-96.
[72] Scoring approach for strength of evidence is set out in Annex A,
[73] Harmful mitigation strategies in this study were identified as being: reducing spending on necessities (e.g. food, essential clothing, medicines), reducing other spending (e.g. holidays, meals out, days out), struggling to pay other housing costs or bills and taking on household debt/taking on more household debt (e.g. taking out loans, borrowing more, using more credit).
[74] Based on the Consumer Council's calculated composite index which is a composite of tariffs and prices for household gas, electricity, and home heating oil. CCNI Home Energy Index

It was a clear objective of the energy affordability schemes to limit increases in underheating for households due to increasing energy prices. In addition, there was a further aim to limit the risk of underheating for those on low incomes and the fuel poor. Fuel poverty is covered in more detail in the discussion on contribution claim HF2.

There was an implicit assumption in the design of the schemes that by communicating to households that the support was coming, the rates of consumers under-consuming and/or carrying out potential harmful mitigation strategies (to counterbalance perceived or real energy costs) would not significantly increase in the winter of 2022/23. Therefore, the schemes were expected to limit additional underconsumption of energy by (a) reducing the annual energy bill compared to a no intervention scenario (EPG), (b) providing additional income (i.e. financial support) that could be used towards any additional cost of energy (EBSS AFP/ EBSS AF), and (c) reassuring households that they would have support in affording their energy bills at a time when prices were rising so that the household would not feel the need to undertake potentially harmful behaviours (all schemes).

Figure 6.1: Energy prices 2016-2024, Consumer Council Home Energy Index



Source: Consumer Council NI (2024)[75]

Maintaining household consumption to a safe and comfortable level and use of any mitigation strategies

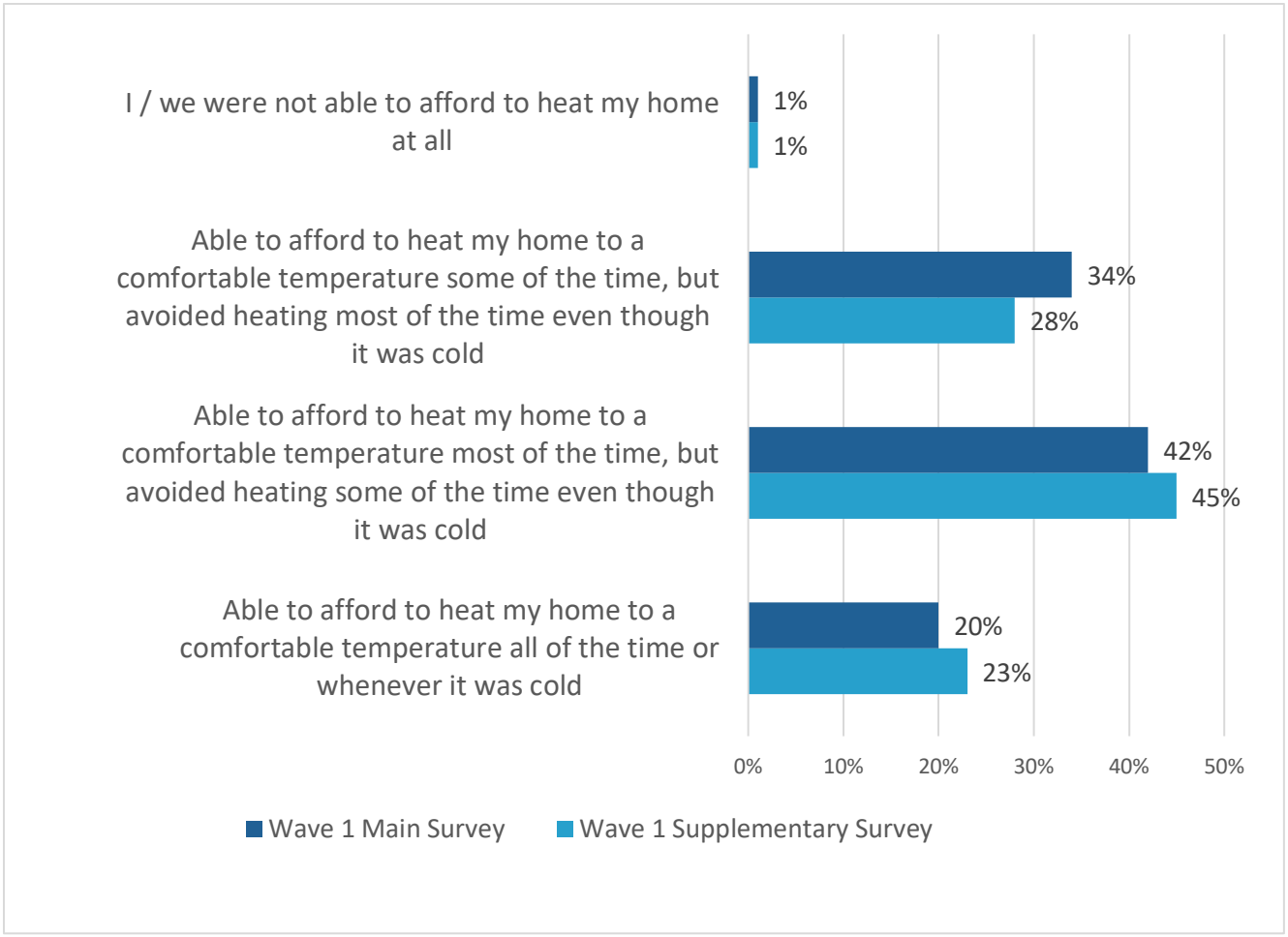
Winter 2022/23

Around one third of households in NI experienced some challenges in maintaining a comfortable home temperature during the winter of 2022/23, with there being some evidence of potentially harmful mitigation actions utilised in homes over this period too. Whilst 62% of respondents to the Wave 1 main household survey reported being able to heat their home all

[75] CCNI Home Energy Index

or most of the time; one third (34%) reported being able to afford to heat their homes to a comfortable temperature only 'some of the time', while 1% reported being unable to afford to heat their homes at all. A similar trend was observed among EBSS AF recipients, with 69% of respondents to the Wave 1 supplementary survey reporting being able to heat their home all or most of the time, but only 28 reporting this as 'some of the time', and 1% were unable to afford to heat their homes at all (Figure 6.2).

Figure 6.2: Households' ability to heat their homes during winter 2022/23



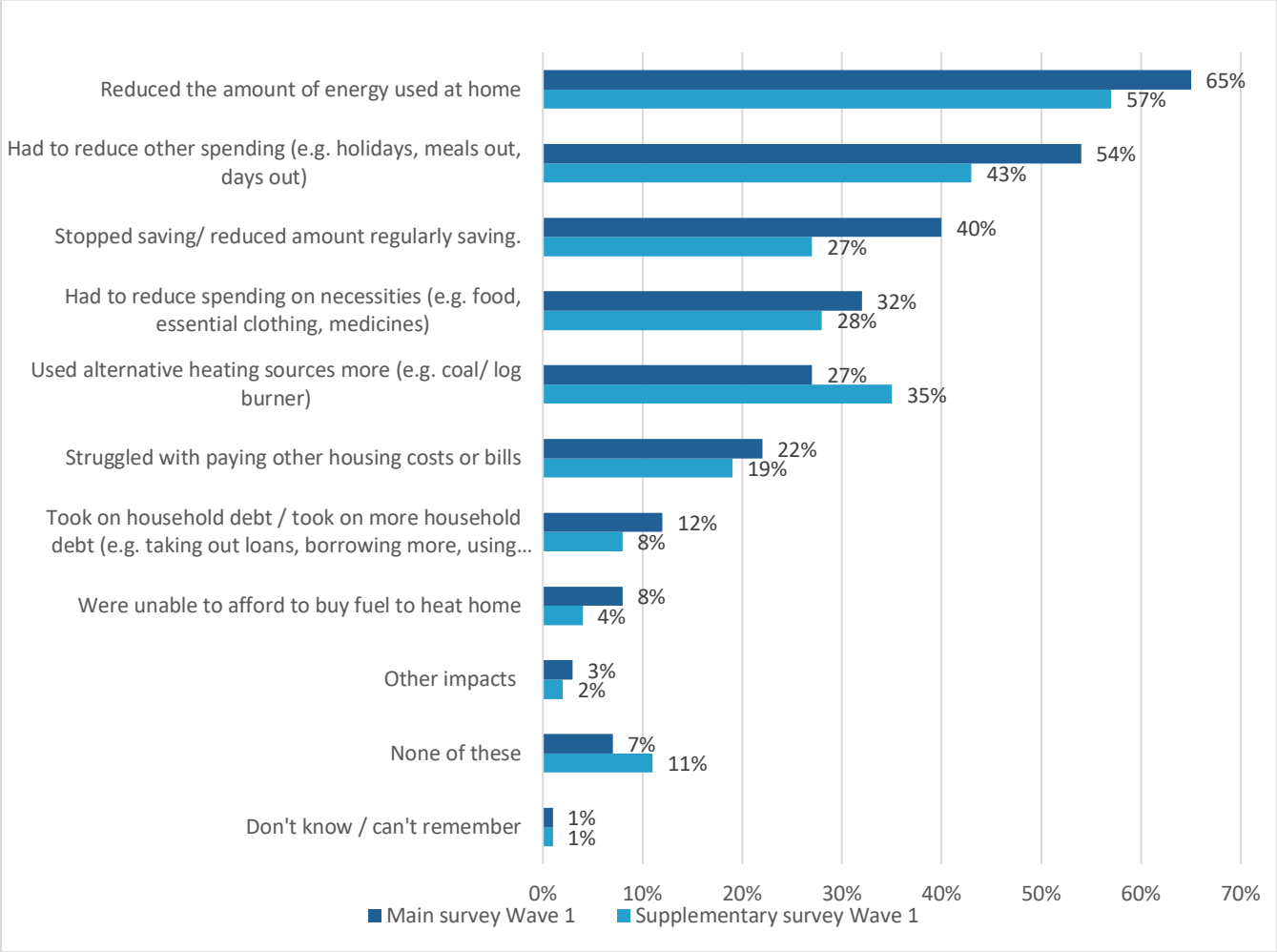
G1. Thinking about when you were at home during winter 2022–23, which of the following options best describes the situation in your household? "I/we were able to afford to heat my home to a comfortable temperature…" Base: All in Wave 1 main household survey (n=1,396), All in Wave 1 Supplementary Survey (n=539).

The survey results also indicate that some households were not able to heat their homes to a comfortable level and – as a result – had to resort to actions, some of which (e.g. using the heating less, turning down the temperature and limiting use of some rooms) might have indicated underconsumption or underheating depending upon the baseline situation of those homes (e.g. the extent to which vulnerable people lived in them and the extent to which baseline energy and heating use was already minimal for comfort, safety and well-being)[76].

[76] Within the evaluation surveys, underheating was classified as those in the main Wave 1 survey who said that they were able to afford to heat to a comfortable temperature most or some of the time or were not able to afford to heat their home at all (question G1).

In addition, the evaluation surveys asked about the impacts of increased costs of home energy on households, which showed that households took actions to mitigate these effects over winter 2022/23. Over half of those responding to the main Wave 1 household survey said that they had reduced other spending (54%); almost a third (32%) reduced spending on necessities and just over a fifth struggled with paying other housing costs (22%). There was a similar pattern in the Wave 1 supplementary survey with over two fifths (43%) reducing other spending; over a quarter (28%) reducing spending on necessities and just under a fifth struggling with paying other housing costs (19%). Almost two-thirds (65%) of households in the main survey reduced the amount of energy they used over winter 2022-23 (though this behaviour change may not necessarily have been harmful). (Figure 6.3).

Figure 6.3: Impacts of increased costs of home energy on households in winter 2022/23



E1. During winter 2022-23, energy bills for most households were higher than they had been in previous years. Which of these impacts, if any, did the increased costs of home energy have on your household? Multiple responses allowed. Base: All in Wave 1 main household survey (n=1,396), All in Wave 1 Supplementary Survey (n=539).

These actions were classified in the evaluation as harmful, but their undesirability is relative to the context of the household and baseline spending on different categories of spend. However, evidence from the depth interviews with households does indicate that at least some households took actions which could have been harmful, and which indicated they were not heating their homes to a comfortable level.

> *"Thankfully I don't have any children, it's just me and my single housemate, and we were able to sacrifice on heat or on food as we had no dependants, but it was still difficult. It was stressful, there was anxiety. It wasn't the only reason for my stress and anxiety, but it definitely didn't help."* (Wave 1 interview participant, EBSS AFP and EPG recipient)

> *"We certainly cut back on just sort of daily spending such as food or clothes. We would get less of that just to be able to afford the bills. And even then, we still wouldn't be able to heat up the whole house or keep the heating on for the whole duration of the day. We just, we don't do anything at all. We just stay at home all the time, just being conscious of our spending. Well, I was trying to save up because we both rent and we would like to buy a house just to own property, but that's kind of out of question right now."* (Wave 2 interview participant, EBSS AFP and EPG recipient)

> *"[I was] terrified of putting the heat on, in case it gets cold or we run out. Electric blankets on bed, kids have hot water bottles for bed, which is on all night with the electric blankets. Put fleecy pjs on my children, put blankets on my bed, winter duvets, curtains and things just to make it a bit more cosier. But the problem is double glazing is gone in the house, so it's just a cold, cold house."* (Wave 2 interview participant, EBSS AFP and EPG recipient)

It is also possible that positive environmental benefits (e.g. which contribute to a reduction in carbon emissions) could have been achieved from households demonstrating behaviours which focused on energy efficiency such as fitting a new boiler, buying more energy-efficient appliances, installing energy monitoring equipment, or joining an oil buying club or network. These might have had wider future benefits and would not necessarily have been detrimental to all households (see Figure 6.4).

Winter 2023/24

Compared to winter 2022/23, there was a slight improvement in self-reported energy affordability during winter 2023/24; households were more likely to say they could afford to heat most or all of the time, and less likely to say they needed to take actions to reduce energy costs. There was a small increase in the proportion of households reporting being able to heat their homes comfortably all or most of the time. In the main household survey, this figure rose from 62% in Wave 1 to 72% in Wave 2. Among EBSS AF recipients, the proportion increased from 69% in Wave 1 to 76% in Wave 2.

Furthermore, there was a decrease in the proportion of households reporting having to take actions to reduce energy costs in winter 2023/24 compared to winter 2022/23. For example, in the main household survey, the proportion of respondents who reported reducing their energy use at home fell from 65% in Wave 1 to 59% in Wave 2. Among EBSS AF recipients, this figure fell from 57% to 50%. Half (52%) of respondents reported turning their heating down in the Wave 1 household survey, compared to 44% in the Wave 2 survey. Similarly, 22% reported that they struggled to pay household bills in the Wave 1 survey, compared to 16% in the Wave 2 survey. Within the EBSS AF population, 61% of people reported using less heating

in Wave 1, compared to 54% in Wave 2. Similarly, 47% reported turning their temperature down in Wave 1, compared to 41% in Wave 2.

Households' perceived abilities to heat their homes to a comfortable level across both winters were also affected by external contextual factors including:

- **Energy prices:** The costs of electricity, gas and oil were all lower in winter 2023/24 than in winter 2022/23.[77]
- **The weather:** Winter 2022/23 was colder than 2023/24 by around 1°c on average.[78] We would therefore expect that – even with support – households might have perceived that it was more difficult to heat the home in winter 2022/23 and might have utilised more mitigation strategies, including harmful ones.
- **Publicity and concern about energy price rises:** In winter 2022/23 there was more publicity about the rise in energy prices (or the sudden and acute nature of the rises) that might have caused households to apply different strategies to reduce their energy consumption, including potentially harmful ones, during the earlier winter.

Economic price elasticity modelling for households receiving EPG and EBSS AFP, EBSS AFP only, and in a 'no intervention' scenario

Economic price elasticity modelling of the relationships between prices and consumption patterns highlights that the support provided through both the EPG and EBSS AFP induced a more than 20% estimated increase in energy usage amongst households in the three lowest income deciles (see Table 3 in Annex C). In this model, the predicted change in energy usage decreases with income deciles until the highest (9th and 10th) deciles where there was a reduction in energy usage compared with the counterfactual of having no policy intervention. The equivalent modelling comparing only EBSS AFP payments to a no intervention scenario induced an increase in energy usage of 5% in the lowest decile to 0.6% at the 5th decile, with no difference after that. The change in modelled energy usage with higher income deciles suggests some level of potential deadweight in the schemes.[79]. See Annex C for the methods applied as well as a discussion of the caveats around this early analysis. Further analysis, including using more granular data and a fuller exploration of estimated deadweight, is being conducted under the current impact and economic evaluation.

The magnitude, prevalence and heterogeneity of energy underconsumption and harmful mitigation strategies in the intervention period

The analysis above suggests that around one third of households in NI were only able to heat their home to safe / comfortable levels some of the time, with around two-thirds being able to heat it to a safe / comfortable level most or all of the time. It also indicated that most households adjusted their behaviours to reduce the amount of energy they consumed over the intervention period. However, potentially harmful strategies were less prevalent than other

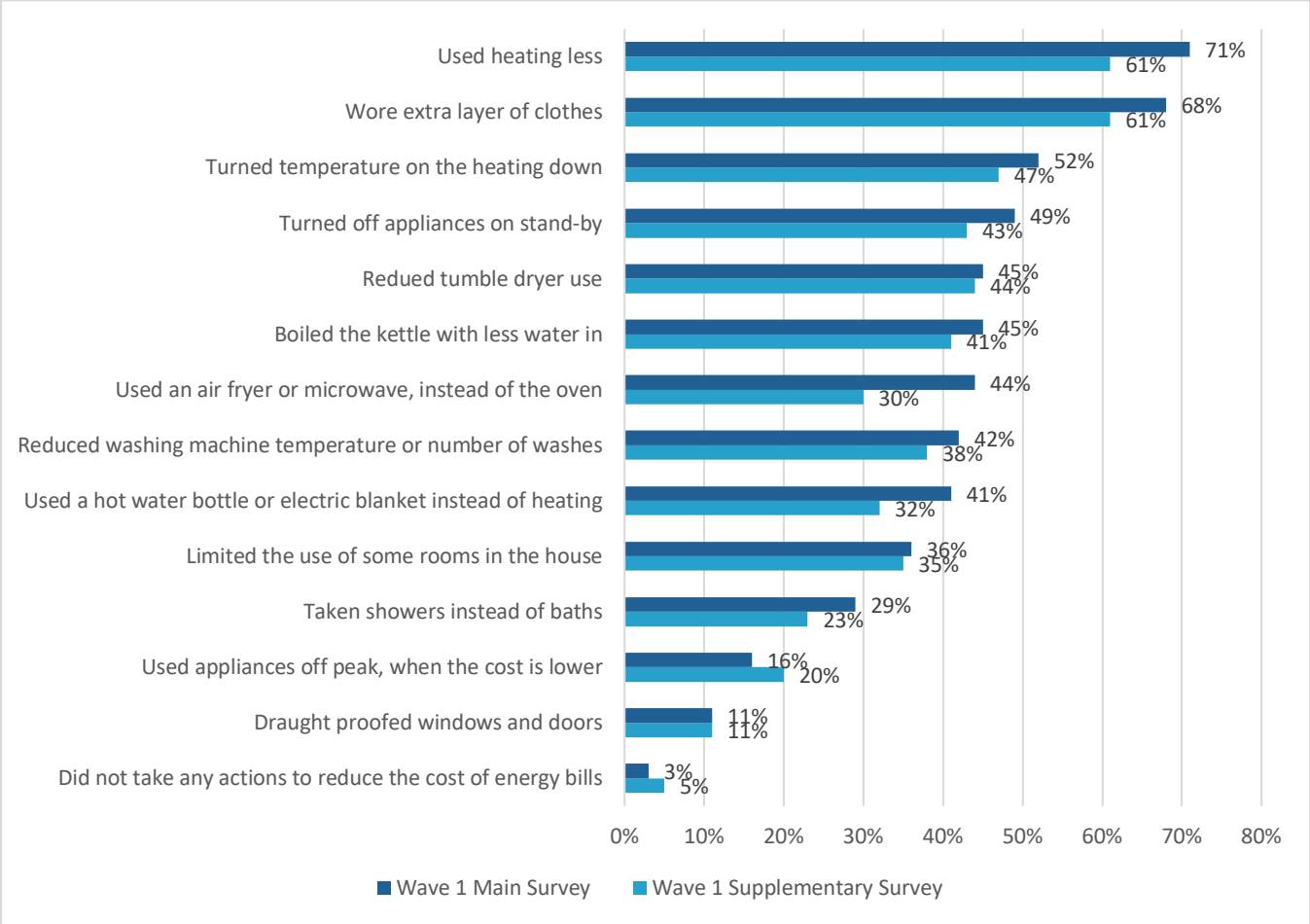
[77] CCNI Home Energy Index
[78] The average temperature for 2022-23 according to the Met Office was 4.2ºC and the average temperature for 2023-24 was 5.29 ºC.
[79] Estimates were modelled based on the Almost Ideal Demand System (AIDS).

strategies, some of which (e.g. turning down the heating temperature and not heating some rooms) might have been beneficial for energy saving and environmental benefits.

Actions taken by households, including potentially energy efficient behaviours

Some strategies used by households to reduce energy consumption may not be harmful for all households and might be beneficial to the environment, where they focus on energy efficiency such as fitting a new boiler, buying more energy-efficient appliances, installing energy monitoring equipment, and joining an oil buying club or network. In both Wave 1 surveys, the most common actions were used heating less; wore an extra layer of clothes; or turned the temperature down on heating. Only 3% of households in the main survey (5% of EBSS AF recipients) took no actions.

Figure 6.4: Strategies used by households in winter 2022/23 to mitigate energy costs that may have also had unintended positive effects on energy efficiency



Source: E3. During the winter of 2022-23, which of the following actions, if any, did your household take to reduce your energy use due to energy costs? Multiple responses allowed . All in Wave 1 main household survey (n=1,396), All in Wave 1 Supplementary Survey (n=539).

The qualitative interviews also reflected the range of strategies used by households: "I used an air fryer and slow cooker to reduce energy usage. Also used a timer switch to reduce energy usage." Wave 2 interview participant, EBSS AFP and EPG recipient.

> *"I do not use the dishwasher at all, the tumble-dryer is very rarely on. In the winter, clothes would go on the radiator. With the electricity I tried to make an*

effort to cut back, trying not to spend too much." Wave 2 interview participant, EBSS AFP and EPG recipient.

"Started doing washing at night when kids were in bed as cheaper, and we are more cautious. The kids were wearing their PJs two nights rather than one so we could reduce washing." Wave 2 interview participant, EBSS AFP and EPG recipient.

"I actually do a lot of my washing at nighttime when the energy rate is lower. So, my washing machine has a timer on it, and I can set it. So, I would set my machine to come on about sort of half five in the morning, and then it's finished before the unit rate goes up. Wave 2 interview participant, EBSS AFP and EPG recipient.

"So, I cook batch meals and freeze them and that is economical. I also use slow cooker and microwave to reheat them. Occasionally I might have a full roast, but I do not use the oven a lot." Wave 2 interview participant, EBSS AFP and EPG recipient.

Differences in household behaviours and perceptions

There is clear evidence that there were differences in energy consumption between households depending on the scheme they accessed. As discussed in chapter 5, the schemes did not all launch / provide support as soon as the energy price rise hit: EPG covered bills from October 2022; EBSS AFP started distributing support from January 2023, but some may not have accessed it until the end of June 2023; and EBSS AF distributed funds March to May 2023. In relation to EBSS AFP, those paying for their bills via direct debit, therefore, likely received the support closest to the timepoint at which bills and the cost of energy via PPMs increased, with those paying for bills via other means receiving it at a later date.[80]

Between the EBSS AFP and EBSS AF populations there were some small differences in ability to heat the home, with EBSS AFP households more likely to report difficulties in winter 2022-23 and EBSS AF households more likely to report difficulties in the following winter. In both winters, however, EBSS AF households were less likely to resort to using strategies, including potentially harmful ones, to enable them to afford energy. It is unclear why perceptions and behaviours differed between EBSS AFP and EBSS AF households. One possibility is that EBSS AF households were more likely than other households to report receiving other forms of benefits which may have, in turn, supported their perception of energy affordability (61% of those receiving EBSS AF reported receiving no support compared to 69% of EBSS AFP during

[80] The EBSS AFP population either received their payment via direct debit or a voucher redeemable at a Post Office. Those receiving their payment via direct debit, received payment between 16 January and 28 February 2023. Those receiving their payment via a voucher, received this between 16 January and 28 February 2023 (redeemable until 30 June 2023). Within the Wave 1 main household survey, two-thirds (65%) reported receiving their payment via direct debit, while a third (33%) reported receiving their payment via voucher. Therefore, it can be assumed that up to 65% of the EBSS AFP population received their payment during winter 2022/23 and that the third that received a voucher, may have received their payment as late as 30 June 2023 (so after winter 2022/23). For the EBSS AF population, those eligible would have to apply to the scheme between 27 February and 31 May 2023. All payments were paid via direct debit. Therefore, the assumption can be made that most of those receiving EBSS AF did so after the winter 2022/23 period.

winter 2022/23). Secondly, EBSS AF households were more likely than others to use heating oil and to live in older homes. This may have affected their energy using behaviours over the second winter, in spite of the fall in oil and gas prices by winter 2023/24.

The survey data suggests that PPM households faced greater challenges in maintaining a comfortable temperature in their homes. While 24% of direct debit users reported being able to heat their homes comfortably all the time, only 13% of PPM users could do the same. Furthermore, almost half (46%) of PPM households were only able to heat their homes comfortably some of the time, compared to 30% of direct debit users.

The Wave 1 main survey identified some groups as being more likely to say that they would (probably or definitely) not have been able to have afforded their energy bills without the schemes. This included those households renting from a council or housing association (75%) and those more likely to be on certain benefits or unemployed (those who were unemployed more than 12 months (75%), on Universal Credit (81%), those in receipt of Personal Independence Payments (PIP) (67%) and those on carer's allowance (66%) .[81] In the supplementary survey, the groups more likely to say they would not have been able to afford without the schemes were those who rent from a private landlord (60%) and those in the lowest IMD quintile (51%).[82] [83]

Agreement of evidence with hypothesised contribution

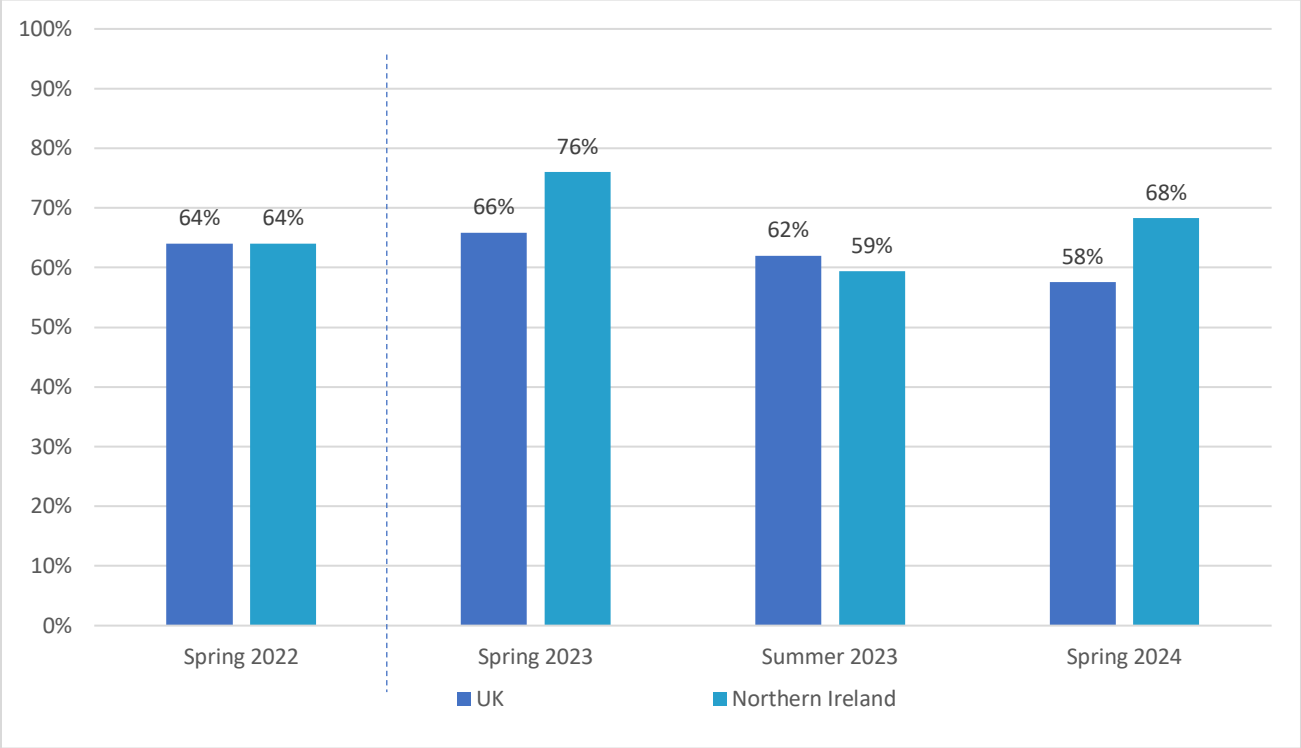
Overall, the evidence presented above confirms the different causal assumptions of the overall ToC. It indicates clearly that there is a causal relationship between energy price rises and households experiencing or recognising a difference in their energy bills and also being concerned and/or anxious about being able to afford or perceiving they can afford to pay for their energy. Similarly, there is evidence of a causal relationship between perceptions of being able to afford to pay for energy and energy use behaviours (e.g. turning down the heating) and other behaviours (e.g. borrowing money to pay for energy, spending less on other essential household goods). Finally, the evidence identified a recognition within at least some households that the energy scheme support might have better enabled them to pay for their energy.

This final assumption is also further validated by findings from the DESNZ Public Attitudes Tracker waves in 2022 and 2023 around concern about paying for energy bills (Figure 6.5). The survey found that 64% of households in both NI and across the UK were very or fairly worried about paying for energy bills in the spring 2022 survey. Following a change of survey methodology, the spring 2023 survey showed a difference between NI and UK concern over bills, with 76% of NI households being overall worried, above the 66% for all UK households. This difference to the UK average may have been exacerbated by potential concerns among NI households regarding perceived uncertainty or delay in the provision of the support, with

[81] Ipsos Wave 1 Main survey. F2. Affordability of household energy bills in winter 2022-23 without financial support (counterfactual scenario): Base: All EBSS AFP who received the payment/voucher (n=953)
[82] Ipsos Wave 1 Supplementary survey F2. Affordability of household energy bills in winter 2022-23 without financial support (counterfactual scenario): Base: All EBSS AF who received the payment/voucher (n=480)
[83] IMD quantiles refer to the relative spatial deprivation in Northern Ireland. More information can be found here: Northern Ireland Multiple Deprivation Measures 2017

£600 EBSS AFP payments rolling out in NI from January 2023 onwards. However, concern then fell back for NI households in summer 2023, suggesting a response following the provision of energy support, before increasing again in spring 2024 to 68% in NI.

Figure 6.5: Proportion very or fairly worried about paying for energy bills in the last three months



Source: DESNZ Public Attitudes Tracker, spring 2024. See footnote for discontinuities in data. [84]

In addition, respondents to the Wave 1 main household survey who indicated that they had been able to heat their home all of the time were asked what impacts not having the schemes would have meant for their household. Of the 20% of Wave 1 main survey respondents that heated their home all of the time, 36% stated they would not have been able to heat their home to a comfortable level all of the time without the government's support. The caveat with this statistic is that this includes households where the government's support would not have been sufficient to enable heating all of the time, but when combined with another strategy it was possible.

[84] DESNZ (2024) DESNZ Public Attitudes Tracker: Energy bills and tariffs, Spring 2024, UK Note, a change in methodology for the Public Attitudes Tracker meant that comparisons should not be made between the Spring 2022 and Spring 2023 results. The question was not asked in Summer 2022.

Table 6.1: Of respondents that heated their home all of the time and still would have heated their homes all the time without support, % stating they would adopt another harmful mitigation strategy without government support

	Main Wave 1 survey
Number of harmful strategies respondents would have adopted without government support	
1 strategy	28%
2 strategies	4%
3 strategies	1%
4 strategies	1%
Harmful strategies that would have been adopted without government support	
Struggle with other bills	3%
Reduce spending on necessities	4%
Reduce other spending	32%
Take on household debt/took on more household debt	2%

Source: Ipsos Wave 1 main survey E2d. Impact of winter 2022-23 on household energy bills without financial support (counterfactual scenario). Base: All (n=1396)

Interpretation of the evidence and discussion of the risk of bias

Overall, the evidence of the schemes' effects on energy affordability and on reducing the prevalence and magnitude of energy burden are low to medium. The strengths are: (1) the clarity of survey data on experiences of energy consumption; (2) the convergence of the survey, modelling and qualitative evidence that there was a causal relationship between the rise in energy prices, household recognition of and concern around energy prices, energy behaviours, and a recognition that the schemes might alleviate this; (3) the existence of some behavioural data that indicates the £600 of support was spent on energy consumption, thus validating the causal assumptions of the Energy Affordability Schemes' Theory of Change. The main limitation for this contribution claim (though it is a significant one) is the fact evidence on the severity (magnitude) of energy underconsumption and harmful mitigation strategies post-intervention and in a 'no intervention' scenario is very weak.

Whilst the schemes clearly made a difference to the affordability of energy bills overall, there were some groups who stated that they could have afforded to heat their homes comfortably without the schemes. For example, some older age groups whose households received EBSS AFP and who said they could heat their homes to a comfortable level in winter 22/23 were more likely to say that they would have been able to do so without government support. For

example, 84% of respondents in the 55-64 year old age group said this.[85] Note that these figures do not necessarily describe groups who may not actually have needed the support, in particular the question asked about heating homes to a comfortable level and did not represent a baseline for the support taking account of different perceptions and behaviours before the schemes. A more technical assessment of deadweight will be addressed in more detail under the UK-level impact and economic evaluation.

6.1.2 Contribution Claim HC3: Self-disconnection and loss of fuel

HC3: The schemes help limit the scale and duration of PPM household self-disconnection from energy suppliers and alternative fuel customer household decisions not to purchase additional energy supplies.

The contribution story being tested

The pathways through which the schemes were expected to limit the scale and duration of PPM self-disconnection or non-purchase of alternative fuels are the same as for HC1 and HC2 – it was expected that by: (1) reducing the cost of energy per unit compared to a no intervention scenario (EPG), (2) providing financial support that could be used towards increased energy costs (all except EPG), and (3) by reassuring households (through scheme communications) that energy bill support would be provided, households on PPMs would be less likely to disconnect for long periods; not re-credit meters and/or not buying more fuel when it ran out.

Disconnection and loss of alternative fuels over the intervention period

Disconnections by PPM households

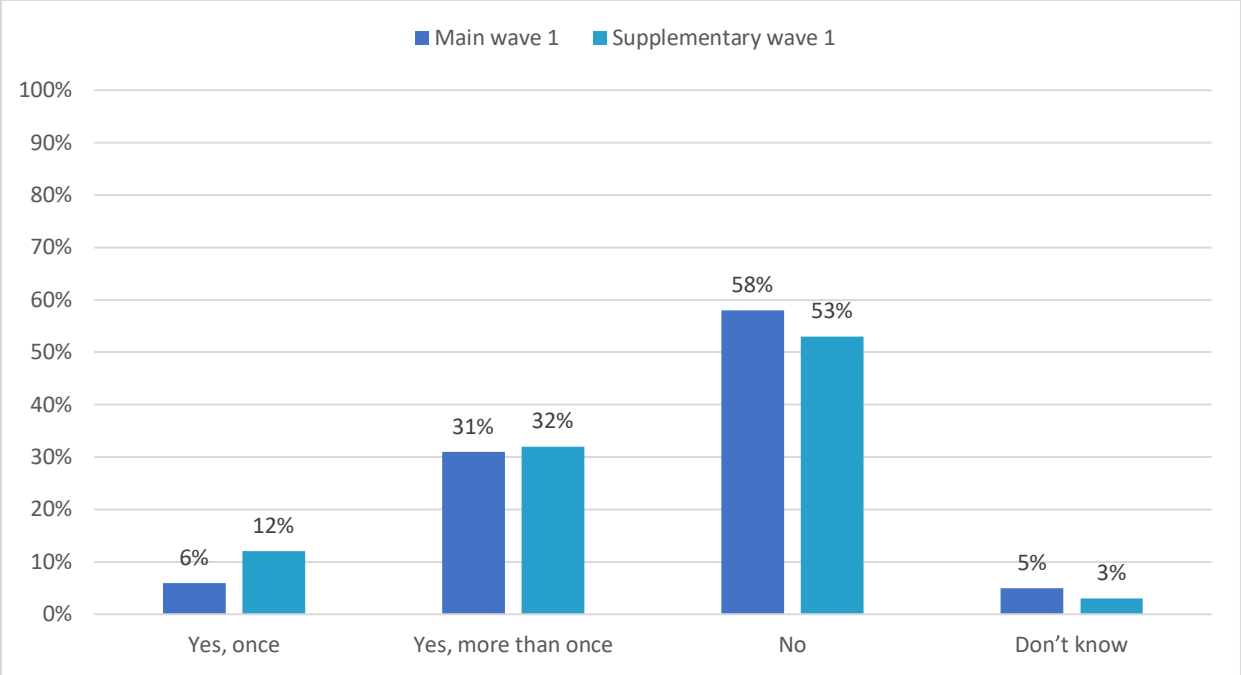
In the Wave 1 main household survey, more than a third (37%) of households on PPMs said that, at some point during winter 2022/23, they ran out of credit on their meter and were disconnected from their energy supply. In contrast, for EBSS AF recipients fewer than 1% of PPM households said that they had disconnected during winter 2022/23 (Wave 1 supplementary survey).

In the main survey, 6% reported disconnecting once and 31% more than once (see Figure 6.6). Where households were disconnected more than once, a third (33%) said this happened at least five times during winter 2022/23, with an average of six disconnections. PPM households that reported being disconnected over winter 2022/23 were also asked how long the disconnection lasted. The vast majority reported that they were disconnected for less than 24 hours (88%). Around a third (31%) said it was for less than an hour, the same proportion (31%) said it was between 1 and 3 hours. Of those that disconnected, half (51%) reported that this was due to not being able to afford the top up. However, it is unclear the extent to which disconnections were driven by lack of funds when the most cited reason was a lack of awareness of credit levels (55%).

[85] G3. I / we would have been able to afford to heat my home to a comfortable temperature all of the time. Wave 1 household survey. Base: All EBSS AFP and were able to heat home to comfortable temperature all the time (n = 186).

There were no significant differences between winter 2022/23 and winter 2023/24 in the proportions of PPM households reporting disconnections.

Figure 6.6: Proportion of households on prepayment meters that reported disconnecting from their energy supply in winter 2022/23



Source: Ipsos Wave 1 Main Survey: E4a. During the winter of 2022 - 2023, did your household run out of credit on your meter and disconnect from your energy supply at any time? Base: All on PPMs (n=449). Ipsos Wave 1 Supplementary Survey E7a. During the winter of 2022 - 2023, did your household run out of (oil / coal / biomass / wood) that you use to heat your home at any time? Base: All on Alternative Fuels (n=401).

Loss of alternative fuel supply

In the main survey, households that used alternative fuels were asked whether they ran out of these fuels at any time during the winter of 2022/23. A third (31%) of these households said that they did run out of alternative fuels,17% ran out once and 14% ran out more than once.[86] Where households ran out of alternative fuels more than once, 14% said this happened at least five times during winter 2022/23. There was no statistical difference between the likelihood of reporting running out of alternative fuels by whether the household used oil or another fuel source.

Financial constraints were a key factor for alternative fuel households, with over half of these households indicating that they ran out due to a lack of funds for fuel purchases. However, like PPM users, a lack of awareness regarding fuel levels was also a contributing factor. The duration of these disruptions varied, with a majority (71%) of those running out of alternative fuels experiencing outages lasting longer than 24 hours.

There were no significant differences between winter 2022/23 and winter 2023/24 in the proportions of alternative fuel households reporting loss of fuels, in the main survey.

[86] Ipsos Wave 1 household survey: E7a. During the winter of 2022 - 2023, did your household run out of (oil / coal / biomass / wood) that you use to heat your home at any time? (Base: All on Alternative Fuels((n=797).

In the Wave 1 supplementary survey, among EBSS AF recipients, 21% of those that used alternative fuels said that they ran out of fuels at any time during the winter of 2022/23. This included 13% who ran out once and 8% who ran out more than once.[87]

The survey data indicates that certain household characteristics were associated with a higher likelihood of reporting disconnections or running out of alternative fuels. Renters, particularly those in social housing (NIHE and housing association renters), were more likely to report disconnections in the survey compared to homeowners (53% vs. 28%). Larger households (those with three or more people) were also more likely to have run out of credit and been disconnected at least once (44%) compared with smaller households (31% of those with 1 or 2 people). Additionally, households with mains gas and electricity were more likely to report disconnections than those with mains electricity only (45% compared with 31%). In the main survey, the subgroups more likely to report running out of alternative fuels included those aged 16-34(46%) or 35-44(45%), households with five or more people (48%) and those earning up to £24,999, at 37%.

Agreement of the findings with the hypothesis

As shown above, disconnections were linked to financial constraints as well as a lack of awareness of credit levels. When asked about the reasons for disconnections from their energy supply during winter 2022/23, the most common response from households on PPMs was that they did not realise the credit was running out (55%). The second most common reason was that they did not have enough money to top up the meter (51%). Other reasons included forgetting to top up (25%), needing to save money for other things besides energy (11%) and being unable to get to a store to top up (9%).[88] The evaluation has not collected evidence on the extent to which frequencies of disconnections increased in the intervention period as compared to previous (pre-scheme) years.

In the Wave 1 main survey the main reasons for households running out of alternative fuels were that they did not have enough money to get a delivery of fuel (53%), that they did not realise the fuel supply was running out (48%) and that they needed to save money for other things besides energy (20%). The reasons among EBSS AF recipients, included 50% who said they did not realise the fuel supply was running out, 40% that they did not have enough money to get a delivery of fuel, and 24% saying they needed to save money for other things besides energy. Households in the main survey that had run out of alternative fuels were asked how long this was for; 27% said it was for less than 24 hours, while the majority (71%) said it was for longer than this, including 22% who said that it was for longer than a week.

Where a lack of awareness by the household was a driver of disconnection or running out of fuel, it is not clear the extent to which this was due to factors unrelated to energy prices, the inherent behaviours of the household or whether the rise in energy prices was also a driver. For example, it is potentially the case that disconnections due to a lack of awareness of the PPM credit / fuel stock were more frequent in winter 2022/23 if the energy price rise caused

[87] Ipsos Wave 1 supplementary survey: E7a. During the winter of 2022 - 2023, did your household run out of (oil / coal / biomass / wood) that you use to heat your home at any time? (Base: All on Alternative Fuels)
[88] Ipsos Wave 1 household survey: E5. For what reason(s) did your household disconnect from your energy supply? Base: All on PPMs who disconnected (at least once) (n=165)

credit to be used up / the fuel stock to deplete more rapidly than would have usually happened in the past (meaning the reduced credit or loss of fuel caught households by surprise). As the data collection for this evaluation has not investigated the baseline behaviour or context it is not possible to draw conclusions on this.

It is important to highlight however, that in the Wave 1 main household survey of those asked about the affordability of their energy bills in the absence of the schemes, 35% of those on PPMs reported that they would probably have not been able to afford to pay energy bills, and a further 18% reported they would definitely not have been able to afford to pay energy bills without the schemes support.[89] While this does not directly translate to the schemes preventing disconnections for the aforementioned group, it does imply that disconnections might have been higher without the schemes' support. It does not however give us any insight into the scale at which it may have helped limit disconnections.

Ten per cent of all households responding to the main Wave 1 survey said that, without government support in the winter of 2022/23, they would have been unable to afford to buy fuel to heat their home. A higher proportion of households that received EBSS AF payments (19% of supplementary survey respondents) said that they would have been unable to afford to buy fuel to heat their home without this support.

These findings suggest that while the energy affordability schemes may have had some positive impact on limiting the scale of energy supply disruptions, a proportion of households still experienced these challenges. The length of loss of fuels reported by alternative fuel households, indicates that the severity of effect was particularly challenging for the minority of households that experienced this.

Interpretation of the evidence and discussion of the risk of bias

Overall, the evidence of the schemes' effects on energy affordability and on reducing the prevalence and magnitude of disconnections is medium. The strengths are: (1) the clarity of survey data on experiences of energy consumption; (2) the existence of some behavioural data that indicates the £600 of support was spent on energy consumption, thus validating the causal assumptions of the Energy Affordability Schemes' Theory of Change. The main limitation for this contribution claim (though it is a significant one) is the fact that evidence on the severity (magnitude) of energy underconsumption and harmful mitigation strategies post-intervention and in a 'no intervention' scenario are very weak.

[89] Ipsos Wave 1 household survey question: F2. Affordability of household energy bills in winter 2022-23 without financial support (counterfactual scenario): (Base: All EBSS AFP who received the payment/voucher and paid for their energy via PPM) (n=315)

6.2 Household finances

6.2.1 Contribution Claim HF1: Energy debt

HF1: The schemes contribute to limiting the number of households that would not be able to pay their energy bills and who go into energy debt with their supplier.

The contribution story being tested

The schemes aimed to mitigate the effect of some households in NI not being able to pay their energy bills, meaning that they would go into arrears in their payments to energy suppliers, thus accumulating energy debt. The schemes were therefore intended to limit this by: (1) applying the EPG discount to household energy prices, which – for households paying energy suppliers directly – would be received as a reduction in the price they pay; and (2) providing households with £600 that could be put towards the payment of their energy bills (through EBSS AFP and EBSS AF).

Energy debt over the intervention period

Winter 2022/2023

In the Wave 1 surveys (conducted in October/November 2023), households who paid their energy supplier by direct debit or via bills upon receipt[90] (i.e. who paid their supplier directly in response to a bill) were asked whether they had been unable to pay any energy bill since November 2022.[91] Fewer than one in ten households reported that they had not been able to pay at least one bill in winter 2022/23, therefore leaving them in debt to their energy supplier. This comprised 7% of main survey respondents and 5% of supplementary survey respondents.

In the Wave 1 interviews, although many EBSS AFP/EPG interviewees reported struggling with energy bills in winter 2022/23, only a few participants reported that they went into arrears with their energy supplier during winter 2022/23. Many interviewees spoke about choosing to borrow money or take on other household debt to avoid going into arrears in winter 2022/23 (see HF3).

Furthermore, both energy suppliers and regulators emphasised that the schemes helped curb energy debt. They believed that self-disconnections would have been significantly higher without these interventions. One supplier suggested EPG played a vital role in preventing widespread financial hardship for customers, though acknowledging the difficulty in proving this claim. This positive impact on customers was further supported by one supplier's 2022/23 Strategic Report, which stated ‘the support measures… have been positive for the Company’s residential and business customers.’

[90] i.e. excluding all those who do not have a direct relationship with their energy supplier and who pay for energy via prepayment meter or as part of other payments - e.g. to a site owner or landlord.
[91] Base = 832 (63% of Wave 1 household survey respondents pay for electricity via monthly or quarterly direct debit or by cheque, cash or card on receipt of a bill from your energy supplier).

Winter 2023-2024

Despite the price of gas and electricity being higher in winter 2023/24[92] due to effective removal of the EPG (see chapter 2), results from the Wave 2 main and supplementary surveys show that the percentage of households who paid their energy supplier by direct debit or via bills who said they had been unable to pay any energy bill in winter 2023/24 (i.e. after the schemes ended) was comparable to the percentage in winter 2022/23 (9% of main survey respondents, 5% of supplementary survey respondents).

Similarly to the Wave 1 interviews, in Wave 2, several interviewees reported taking measures to prevent themselves going into arrears, for example, borrowing money from family members. However very few reported actually being in arrears in winter 2023/24.

> *"It's harder now (affording energy bills). Harder now than it was before. Being honest with you, I had to go tap on the family (for money)." – EBSS AFP Respondent*

These findings indicate that levels of energy debt did not rise or get worse in the winter following the schemes' delivery (i.e. winter 2023-2024) and that energy debt had a prevalence of less than 10% of all households in NI over both winters.

Energy affordability over the intervention period

Despite energy debt levels being relatively low most households in NI reported struggling to pay their energy bills during the intervention period.

Winter 2022/2023

Amongst Wave 1 main household survey respondents, 55% of all households said that they found it 'very' or 'fairly difficult (or 'impossible') to pay their energy bills during winter 2022/23. This compared to 41% of all households who said that it had been 'very' or 'fairly easy'. Amongst respondents to the Wave 1 supplementary survey (therefore, amongst EBSS AF recipients), 60% found it very or fairly difficult or impossible to pay their energy bills, compared to 35% who said it had been very or fairly easy.

These findings align with CCNI data that indicates that many families in NI struggled with their energy bills in winter 2022/23. In the CCNI study, more than half (55%) of the survey respondents reported that they sometimes struggled: with 13% often struggling and 6% always struggling to pay their energy bills[93]. Findings from the Wave 1 depth interviews with households also indicated that households found it difficult to afford their energy bills when the costs increased in autumn 2022. A few interview participants recalled their shock upon receiving energy bills that had risen (they reported) by roughly 50%, despite them not altering their usual energy-use patterns.

[92] CCNI Home Energy Index
[93] CCNI, 2022. The impact of the energy crisis on affordability and the impact of energy transition on consumers.

> *"It was significantly more expensive; the costs were sky high." (Wave 1 interview participant, EBSS AFP & EPG recipient - interviewed December 2023/January 2024)*

> *"I expected the bill to come in and we are both in reasonable jobs - but my husband couldn't believe it would be that amount. We had to move savings across and worried if the bill comes out is it going to be enough to live and buy food and diesel - just ticking over until get paid again." (Wave 1 interview participant, EBSS AF recipient - interviewed December 2023/January 2024)*

It is therefore evident that over the intervention period a majority of households found it difficult to pay their energy bills over winter 2022/23.

Winter 2023-2024

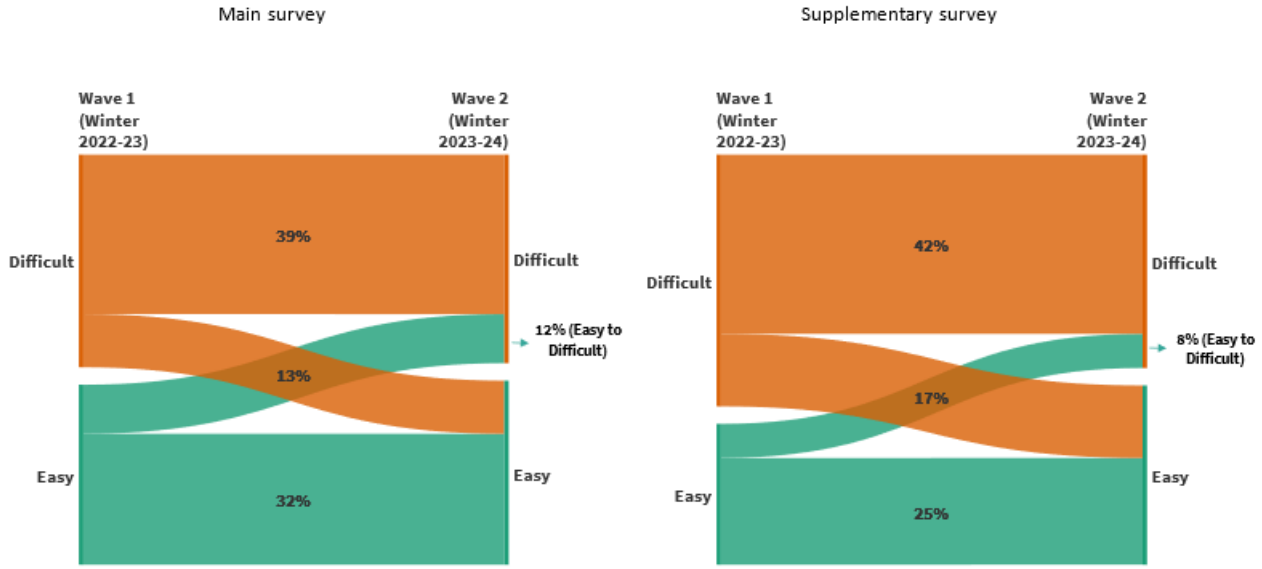
In winter 2023/24, overall energy prices in NI were higher than in 2022/23 (although heating oil prices were lower),[94] however, the winter was milder. Overall, the proportion of households who reported that they found it difficult to pay their energy bill during winter 2023/24 was largely comparable between the two years, but slightly lower in winter 2023/24. Over half (52%) of Wave 2 main survey respondents and 51% of Wave 2 supplementary survey respondents found it very or fairly difficult (or impossible), as compared to 55% of Wave 1 main survey respondents and 60% of Wave 1 supplementary survey respondents who reported this for 2022/23.[95]

Assessing the longitudinal analysis of the data (see Figure 6.7), the ease or difficulty of being able to afford to pay energy bills stayed consistent between surveys for the majority of respondents. A small proportion of households (13% in the main survey and 17% in the supplementary survey) found it easier to pay their bills in winter 2023/24; and a smaller proportion (12% of main survey respondents and 8% of the supplementary survey respondents) found it more difficult.

This indicates that energy affordability did not change substantially between winter 2022/23 and winter 2023/24.

[94] CCNI Home Energy Index
[95] There is only a statistically significant difference for the Supplementary survey findings between both winters.

Figure 6.7: Longitudinal analysis: Ease or difficulty in affording energy bills between winter 2022/23 and winter 2023/24



Source: Main and Supplementary Surveys: QF1b During [winter 2022-23 / the past winter (from December 2023-February 2024], how easy or difficult was it for your household to afford to pay your energy bills? Main survey base: All who took part in Wave 1 and Wave 2 (n=847). Supplementary Survey (n=261)

The magnitude, prevalence and heterogeneity of energy debt over the intervention period

Energy suppliers reported that there was an increase in self-disconnection for those using PPMs and a small increase in debt overall. UREGNI monitors customer debt and reported that whilst the number of people in debt had not increased whilst the schemes were in place, the amount of debt for some individuals did increase. Suppliers were also active in supporting vulnerable customers to help minimise energy debt and disconnection and all signed up to the consumer energy charter which had the same objective.

Households in the main survey that reported having been unable to pay an energy bill were asked to specify the highest amount that they owed to their energy supplier when they were in debt. At Wave 1, 14households said they owed less than £100, while 21 households owed between £100 and £200, 19 households between £200 and £500 and 10 households owed £500 or more.[96] The amounts reportedly owed to energy suppliers were comparable at Wave 2: 11 households said they owed less than £100, while 11 households owed between £100 and £200, 12 households between £200 and £500 and 11 households owed £500 or more.[97] Although, these base sizes were very small, this suggests that at least some households could have owed larger amounts to their suppliers. This is supported by the findings of qualitative interviews with suppliers who indicated that the severity (i.e. magnitude) of debt increased after the energy price rise whereas prevalence of debt increased less. However, given the lower

[96] Small base size (n=64)
[97] Small base size (n=46)

population in NI, the cumulative effect of this debt on suppliers is unlikely to have been significant, as discussed in contribution claim ES1.

Those who were likely to have benefited most from the schemes were those that would have struggled to pay energy bills in the absence of the schemes (as reported under HF1/HF2). In the main survey, this included those more likely to be on certain benefits or unemployed and households who rented from councils or housing associations.[98] In the supplementary survey, this included those who rented from private landlords and those unemployed more than 12 months.

Households who paid their energy bills via PPM were more likely to report finding it difficult or impossible to pay their energy bills in winter 2022/23 than households who pay via direct debit (68% of PPM compared to 47% of direct debit). The Wave 2 data showed that this difference still held in winter 2023/24 after the schemes ended, whereby households who pay via PPM were still more likely to report finding it difficult or impossible to pay their bills (66% of PPM compared to 44% of respondents paying for energy via direct debit in Wave 2). Those who paid by PPM tended to fall into lower income brackets meaning that they would be more likely to face challenges in paying their energy bills.[99]

Amongst the EBSS AF population responding to the supplementary survey, the amount reporting difficulty in paying bills was 60% in winter 2022/23 (falling to 51% in winter 2023/24)[100]. This population reported an improvement in being able to afford energy bills from 35% in winter 2022/23 to 42% in 2023/24 in winter 2023/24. Longitudinal analysis in Section 6.2.2, below, also observed an improvement in households' ability to pay energy bills (among households who participated in both waves).

Agreement of evidence with hypothesised contribution

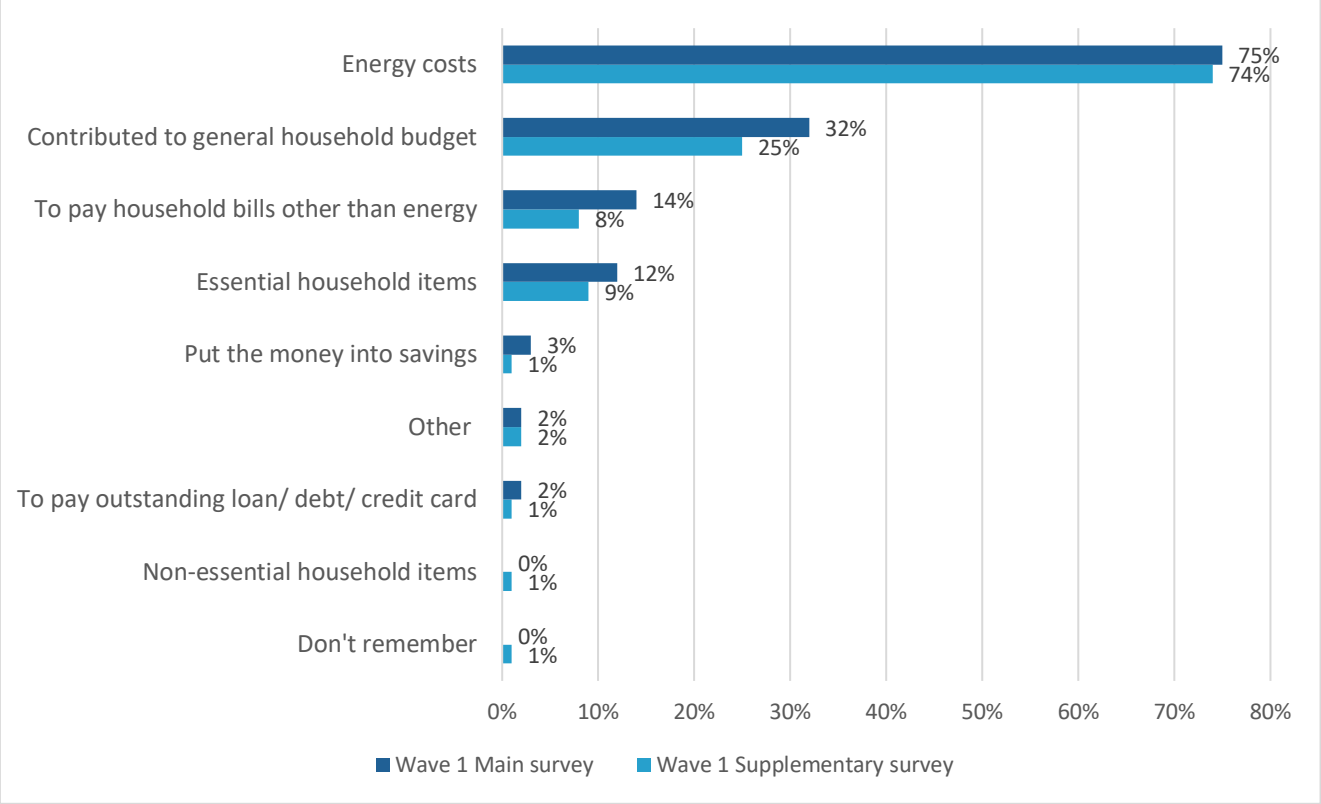
The schemes were intended to limit energy debt by:

- Lowering household energy bills through the EPG
- Providing additional financial support that could be used towards the payment of energy bills through EBSS AFP and EBSS AF.

As set out in the discussion of contribution claims HF2 and HF3, the EPG did lower energy bills to a substantial degree. In terms of the effects of EBSS AFP and EBSS AF on preventing energy debt, survey responses (see Figure 6.8) suggest that three-quarters of households spent the £600 on energy costs.

[98] Ipsos Wave 1 Main survey. F2. Affordability of household energy bills in winter 2022-23 without financial support (counterfactual scenario): Base: All EBSS AFP who received the payment/voucher (n=953)
[99] The base numbers for households who paid their energy bills directly on receipt of the bill or indirectly via intermediaries (e.g. via a landlord) were too low to show any comparison results.
[100] Based on responses to supplementary survey question F1b. 'During the past winter, how easy or difficult was it for your household to afford to pay your energy bills?' (Wave 1 base = 539,Wave 2 base = 363).

Figure 6.8: How households spent their energy payment



Source: Ipsos Wave 1 main household survey and Wave 1 supplementary survey B3a. You received the Energy Bills Support Scheme Alternative Fuel Payment/ Energy Bills Support Scheme Alternative Funding. What did you spend the payment on? Base: All eligible of EBSS AFP and not categorised as EBSS AF (n=872), Base: All EBSS AF who received the payment (n=480)

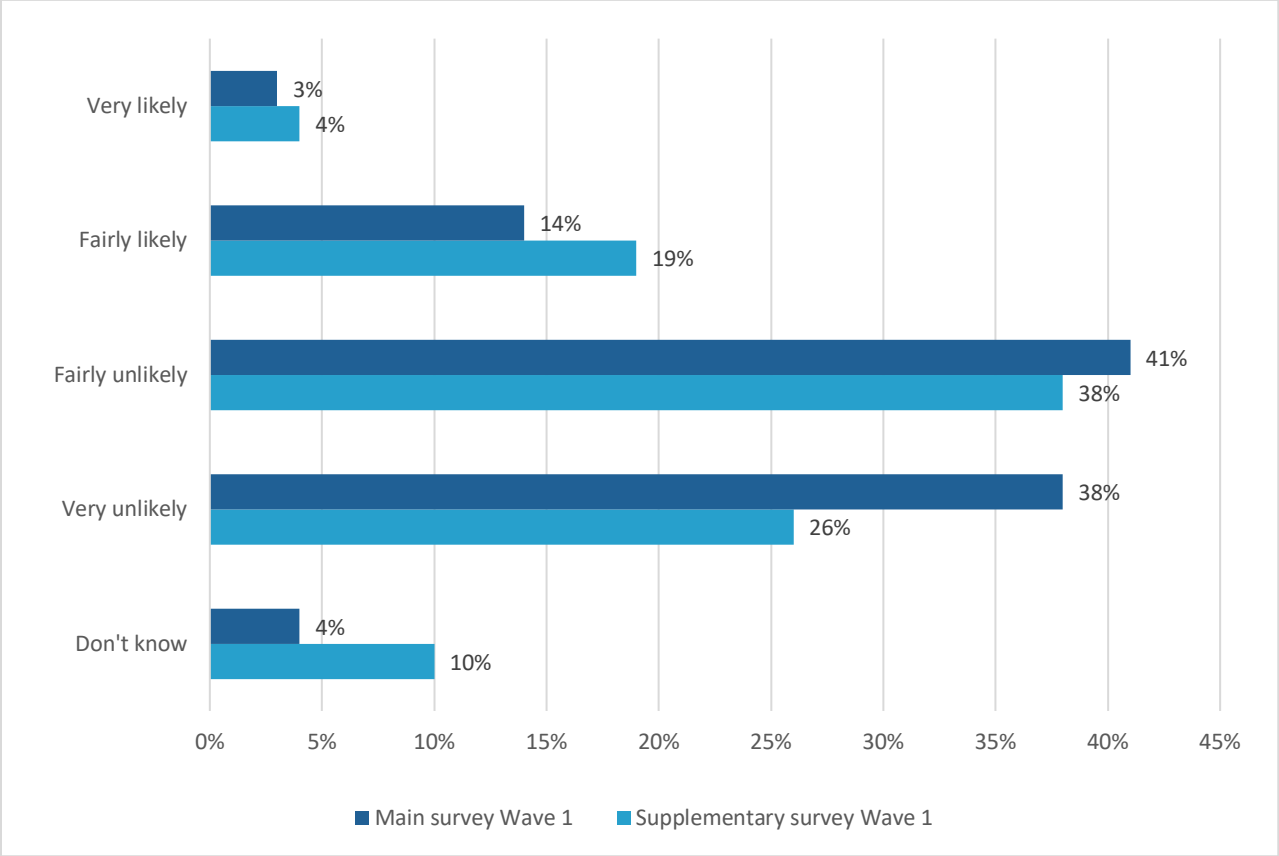
As part of the surveys for this evaluation, respondents were asked whether they thought they would have been able to pay their energy bills without the schemes (also referred to as the 'counterfactual scenario' in this report). Around a third (34%) of respondents to the main Wave 1 survey (who reported receiving the £600 EBSS AFP payment) said that, without government support in winter 2022/23, they would have been unable to pay their energy bills.[101] This comprised 25% who said they would probably not have been able to pay, and 9% who said they would definitely not have been able to pay. Similarly, in the supplementary survey, around a third (31%) of respondents who reported receiving the £600 EBSS AF payment said that, without government support in winter 2022/23, they would have been unable to pay their energy bills.[102]

Around one in five (19%) of all respondents to the main Wave 1 survey said that, without government support in the winter of 2022/23, they would have taken on (more) household debt. Similarly, 16% of respondents to the supplementary Wave 1 survey that received EBSS AF payments said that they would have taken on (more) household debt without this support. Among households surveyed in Wave 1 who had not been in debt, 17% of EBSS AFP

[101] Base = 961
[102] Base = 480

recipients and 24% of EBSS AF recipients said it was very or fairly likely they would have gone into debt with their energy supplier, in the absence of this support (see Figure 6.9).

Figure 6.9: Likelihood of having gone into debt without government support in winter 2022/23



Source: Ipsos Wave 1 main household survey and Wave 1 Supplementary survey. QF6. Likelihood of energy debt during winter 2022-23 without financial support for energy bills. Wave 1 Base: All who received EBSS AFP, and who had not been in energy debt (N =570), All who received EBSS AF, who did not experience energy debt (N = 298)

In interviews, recipients of the EBSS AFP and EPG schemes generally expressed that receiving the £600 payment from the government helped alleviate some of their financial burdens related to energy costs in winter 2022/23. Most interviewees did not comment on whether the schemes directly limited levels of energy debt, however a few EBSS AFP interview participants in Wave 1 did report that the government support prevented them from going into energy debt/arrears with their energy supplier.

> *"Did not go into arrears [in winter 2022/23], really did not want that at all. Had a meter, so could pay in advance for what I used. It was a recommendation from a friend to put the meter in, in May 2022. The government one-off payment helped. The EPG did not seem to help, the costs of electric were still unaffordable." Wave 1 interview participant, EBSS AFP & EPG recipient (interviewed December 2023/January 2024).*

Interpretation of the evidence and discussion of the risk of bias

The survey evidence points to relatively low levels of energy debt prevalence over the intervention period. This aligns with evidence presented in the discussion of contribution claim ES1 that suppliers did not become insolvent during the intervention period. However, there is some evidence that there were pockets of high magnitude energy debt. The survey evidence also indicates that those considered as most vulnerable (those on lower incomes, with long term illnesses or disabilities) were significantly more likely to experience energy debt, however, which indicates they may have been more in need of the intervention than other households.

The evidence presented in this section in relation to (a) the extent to which debt levels changed or remained the same, and (b) the contribution of the schemes to debt minimisation has a low to medium strength.

The strengths of the evidence are: (1) The logic of the causal link between receiving a discount on an energy bill (through EPG), plus receiving £600 and being able to pay for energy have been demonstrated with the energy modelling presented in the discussion on contribution claim HF2 (see below). (2) The survey evidence is nationally representative, and it suggests strongly that energy debt was fairly low over the intervention period, but also indicates that there was a high number of households at risk of energy debt (given income levels). (3) The survey evidence and qualitative evidence converge in indicating that it was difficult for households to pay their energy bills (see also discussion of this below), but that the scheme support mitigated against energy debt.

The limitations of the evidence are: (1) There is no baseline information on typical, average or pre-existing levels of energy debt prior to the energy price rises, so it is not possible to say the extent to which the schemes limited debt prevalence compared to what was already ‘the norm’ or might have been likely to be the norm. (2) The evaluation has tried to assess the no intervention scenario by asking for households’ views of what would have happened in the absence of the scheme, but this is not very reliable evidence given that it relies heavily upon the survey respondent’s perceptions which are likely to have been affected by many other factors (including their sense of financial security at the time of responding), and the by the fact that they were recalling a point in time 6-12 months before the time of the survey, thus recall may have affected accuracy. (3) There is limited behavioural evidence to enable us to validate the ToC of how households utilised the £600 EBSS AFP / AF support.

6.2.2 Contribution Claim HF2: Energy affordability and fuel poverty

HF2: The schemes contributed towards limiting the increase in the proportion of households experiencing fuel poverty

The contribution story being tested

A key underpinning causal assumption was that the schemes would be able to limit the breadth and depth of fuel poverty compared to a no intervention scenario. Throughout this section, reference is made to the concept of energy burden as a proxy for fuel poverty. The measure of energy burden calculates the proportion of household income (after rent and mortgage

expenses) spent on energy using responses to the survey data.[103] The EPG was the primary tool for achieving this given that it targeted the 'energy price' driver of fuel poverty.[104] The EPG reduced the cost of on-grid electricity and gas compared to a 'no intervention' scenario over the intervention period. However, it is important to note that in NI, only ~25% of households use main gas for heating compared with 74% in GB. In theory, the EBSS AFP £600 payment in NI should also have been able to limit the breadth and depth of fuel poverty to the extent that (a) it increased income over the intervention period, and (b) if households put it directly towards energy costs, and if it were received in time for the effects of energy price rises to hit the household energy bill,[105] it would have also limited the real effect of the energy cost driver of fuel poverty.

Energy affordability over the intervention period

Overall, according to the surveys conducted for this evaluation, most households in NI struggled to pay their energy bills during the intervention period. The evidence discussed under HF1 (energy debt) indicates that during the winter period when the scheme was launched (i.e. winter 2022/23) as well as the winter period after the schemes ended (i.e. winter 2023/24), many households found it difficult to pay their energy bills.

Survey findings on energy burden

The main household survey showed variations in households experiencing energy burden in winter 2022/23. Overall, 34% of households in NI reported they spent more than 10% of their income on bills (after housing costs). **Those renting from a council or housing association, households on universal credit or who had been unemployed for more than 12 months were more likely to report this.** Unsurprisingly, those living in the most deprived IMD quintile were also more likely to report an energy burden of over 10% of income. There were no differences in energy burden levels by whether respondents lived in urban or rural areas.

Responses to the supplementary survey showed that 58% of EBSS AF recipients, spent more than 10% of their income on energy (18% spent between 10% and 15% 40% spend more than 15% on energy).

Modelled energy burden levels for households receiving EPG and EBSS AFP, EBSS AFP only, and in a 'no intervention' scenario

The economic price elasticity modelling undertaken indicates that both EBSS and EPG played a role in reducing both the breadth (i.e. number/spread of households) and the depth (i.e. severity) of the energy burden on households[106]. However, where households benefitted from both EPG and the £600 EBSS payment, the positive effect on energy burden in terms of severity and prevalence was greater. The lack of national, granular energy data for NI meant that the analysis presented in Annex C was based on aggregate data and included some assumptions based on GB results. See Annex C for the methods applied as well as a

[103] The methodology used to create this measure of energy burden is described further in Annex A.
[104] The three primary drivers of fuel poverty are: high energy costs driven by the energy demand within the home (e.g. homes being harder-to-heat), the households' spending power (i.e. levels of income), and energy prices.
[105] These are two assumptions which the evaluation has tested.
[106] This analysis is described in more detail in Annex C.

discussion of the caveats around this early analysis. A UK-level impact and economic evaluation is planned, which will investigate these results in further detail, using more granular energy consumption data.

The magnitude, prevalence and heterogeneity of fuel poverty in the intervention period

Prior to the introduction of the schemes, it was estimated that at least 22% of the NI population was classified as being in fuel poverty. In NI, a household is defined as being in fuel poverty if it needs to spend more than 10 per cent of its income on energy costs.[107] The House Condition Survey (2016) in NI estimated fuel poverty at 22% of households in 2016. A subsequent update by the NIHE in 2023 estimated an increase to 24% of households in 2020-21, although the authors stated that the 2020-21 estimates were to be used with caution.[108]

Based on data collected through the Wave 1 main household survey for this evaluation (see Technical Annex for the method used), of the 85% of total respondents who provided the necessary information to calculate the average monthly proportion of income (after rent/ mortgage) on energy bills, 34% were spending over 10% of their remaining income on energy bills. Amongst this 34%, 13% reported spending between 10-15%, while 20% of respondents reported spending over 15%.

Our overall estimate of energy burden aligns with a survey conducted on behalf of the CCNI in March 2022 (i.e. shortly before the main rises in energy prices), which also estimated that 34% of NI households were in fuel poverty under the 10% metric.[109] Should CCNI's estimate be accurate,[89] this would suggest that fuel poverty did not increase in prevalence over the intervention period. The longitudinal data collected for this evaluation also suggests that – for most households – ability to pay for energy remained largely constant between the two winters, getting easier for a slightly higher number of households than the number for whom it became more difficult. Given the warmer temperatures in winter 2023/24 (1-2°C difference), it would be anticipated that more households would shift from finding it difficult to easier were there any changes.

One in ten of those in energy burden (i.e. under the evaluation's proxy measure for fuel poverty, spending over 10% of their net income on energy) reported that they had been unable to pay their energy bills.[110] Similarly, those in energy burden (and who were on PPMs) were more likely than others to report having disconnected from their energy supply (45%, compared with 35% not in energy burden).[111]

[107]NIHE (2018) House Condition Survey: Main Report 2016.
[108] NIHE, BRE (2023) Estimates of Fuel Poverty in Northern Ireland 2020-21 However, given the impact of COVID-19 and the challenges in adjusting the model (uplifting data based on the 2016 survey data),the authors state that the 2020-21 estimates are to be used with caution.
[109] CCNI, May 2022. A Review Of Fuel Poverty Levels In Northern Ireland
[110] Source: Ipsos Main Wave 1 survey F4. Since November 2022, has your household been unable to pay an energy bill, leaving you in debt to your energy supplier? Base: All (who pay their bills upon receipt or by direct debit) who went into energy debt (n=832).
[111] Source: Ipsos Main Wave 1 survey E4a. During the winter of 2022 - 2023, did your household run out of credit on your meter and disconnect from your energy supply at any time? Base: All on PPMs (n=449).

The price elasticity modelling for this evaluation also indicates that the scheme support prevented fuel poverty from increasing in prevalence amongst NI households, with the EPG having a greater effect than EBSS AFP alone. In terms of magnitude, the modelling also suggests that the depth of energy burden (as a proxy for fuel poverty) experienced by households of different income deciles was also mitigated through the scheme support, with the EPG and EBSS AFP having a greater effect than EBSS AFP alone. The analysis (presented in Annex C) also suggests that those in the lowest income decile benefitted the most from the schemes, as the modelling predicts the £600 + EPG policy would have enabled them to use 26% more energy than they would have been able to without any intervention at all.

EPG only discounted electricity and gas bills and therefore did not contribute to reducing the costs of oil. However, the evaluation surveys did not find any significant differences in likelihood of experiencing energy burden between households by type of fuel used for heating suggesting that households using oil for heating were not necessarily more likely to experience energy burden and would therefore not be made 'doubly vulnerable' by missing out on EPG. Indeed, as set out on UREGNI's website,[112] the EPG discount was greater on electricity than gas and, as set out in Chapter 2, most households in NI have an electricity meter and use electricity from the grid (with most on domestic meters and therefore eligible for EPG).

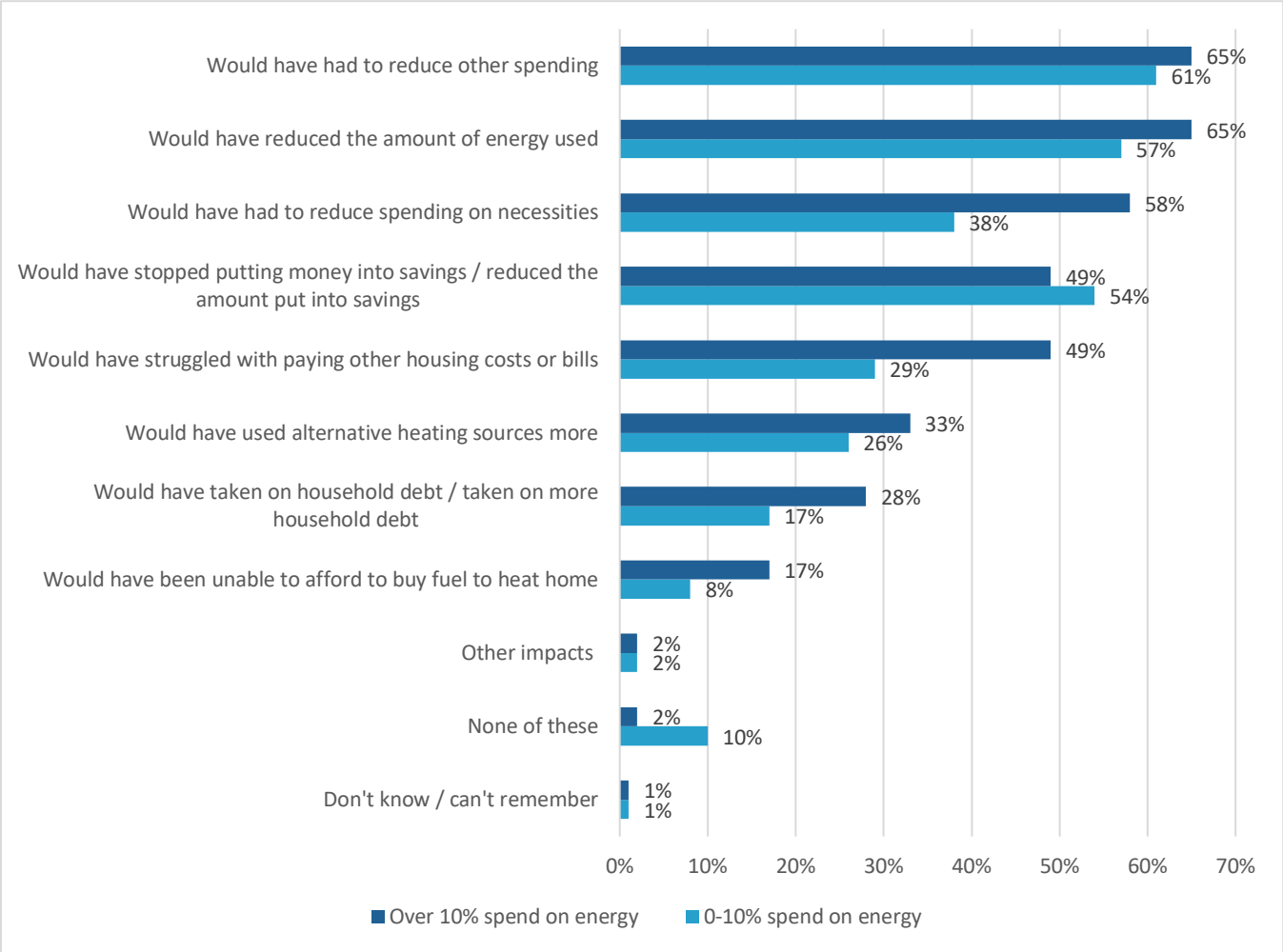
Agreement of evidence with hypothesised contribution

In terms of lowering household energy bills, there is good evidence from the modelling that EPG reduced bills. There is also good evidence that EBSS AFP and EBSS AF support was used to pay for energy, with three-quarters of respondents (75% in the Wave 1 Main survey, 74% in the Wave 1 Supplementary survey) reporting using their payment towards energy bills. As set out below, the qualitative evidence on how the £600 was spent, also triangulates with the payments being mainly spent on energy.

In the Wave 1 main survey, 54% of those who spent more than 10% of their income (after rent/mortgage) on energy said that they would probably or definitely have been *unable* to afford to heat their homes without the scheme. Figure 6.10 shows the potential impacts that respondents to the main survey felt could have resulted had the schemes not been in place. Almost every behaviour would have been more likely to have been taken by those in energy burden compared with those outside energy burden (except for putting less money into savings or reduce other spending). Ten per cent of all of the Wave 1 main survey respondents stated that they would have been unable to afford to buy fuel to heat their home in the absence of the energy affordability schemes. However, for those spending over 10% of their income on energy this equivalent figure was 17% (compared with 8% of those spending less than 10%).

[112] https://www.uregni.gov.uk/news-centre/energy-price-guarantee-scheme-and-what-it-means-northern-irelands-regulated-energy

Figure 6.10: The impacts of winter 2022/23 in the absence of the schemes by energy burden (i.e. spending either less than or more than 10% of income on energy bills after rent/mortgage)



Source: Ipsos main Wave 1 survey: E2d. Impact of winter 2022-23 on household energy bills without financial support (counterfactual scenario).Base: All who provided energy burden data (n=1183)

Qualitative evidence from Wave 1 interviews suggest that some households were able to use the £600 EBSS AFP or EBSS AF payments to support with paying energy bills. Interviewed recipients of the EBSS AFP schemes (Wave 1) generally expressed that receiving the £600 payment from the government helped alleviate some of their financial burdens related to energy costs. For example, one participant said that although "*it was not a lot of money, it felt like a lot*" and that it helped her "*feel free*". She said that she did not have to worry about electricity, however things were "still a stretch". Another interviewee who received the EBSS AF scheme payment said that they "*welcomed [the] support as it helped with outstanding bills, unexpected expenses, and filling fuel tanks*".

As illustrated by the quotes below, some other interview participants (Wave 1) reported that the support was welcomed and helped alleviate some of their financial concerns, however they reported that energy costs were still high, and that the financial relief was only short-term. This reflects the findings from the evaluation surveys that many households still found it difficult to afford their energy bills during the intervention period and after the schemes had ended.

"It did help for a short period of time- it softened the blow when the EPG stopped." Wave 1 interview participant, EBSS AFP and EPG recipient

"It did [alleviate some issues] at the time but it was quick in the hand then out of the hand. I know friends who didn't need it, but I really needed it and the money went to the bills." Wave 1 interview participant, EBSS AFP and EPG recipient

"Energy was £3-4k, so the £600 was just put towards the bill. It just went into the bank and helped with bills. It made things a bit easier." Wave 1 interview participant, EBSS AF recipient

Interpretation of the evidence and discussion of the risk of bias

Overall, the evidence of the schemes' effects on energy affordability and on reducing the prevalence and magnitude of energy burden are medium. The strengths are: (1) the convergence of different sources of analysis and data (survey, modelling, qualitative interviews) indicating that energy burden did spike in winter 2022/23 and 2023/24 compared to what was likely the baseline situation; (2) the convergence of the survey, modelling and qualitative evidence that there was a causal relationship between the scheme support and greater affordability of energy / reduced energy burden; (3) the existence of some behavioural data that indicates the £600 of support was spent on energy costs, thus validating the causal assumptions of the energy affordability schemes' ToC.

The limitations of the evidence are: (1) The baseline information on energy burden levels has not been verified as credible and its reliability is therefore unknown. This affects the conclusions that can be drawn about the scale and extent of change in energy burden levels before and after the intervention. (2) There are limitations to the modelling, in particular, the fact that it was only able at this stage to consider an EPG+EBSS AFP scenario and an EBSS AFP-only scenario. This limitation affects the credibility of conclusions drawn on causality between the scheme and energy affordability. (3) There are some limitations to the behavioural insights we can gather from the data. Whilst there is some evidence from the surveys and further detail from the qualitative interviews on how households spent the support, ideally, there would have been further detailed exploration of how the £600 was spent and the different decisions and behaviours (e.g. options assessment, budgeting, spending) involved, alongside some additional probing to verify that money was not spent in other ways.

6.2.3 Contribution Claim HF3: Households' borrowing and capacity to spend on other essentials

HF3: The schemes limited increases in household borrowing and cuts in other essential spending (e.g. food, essential clothing, medicines) and savings.

The contribution story being tested

The schemes were implemented in order to prevent knock on impacts on the wider economy. There was an assumption that the schemes would limit households increasing their borrowing, cutting savings, and cutting essential spending on items other than energy. As with the HC

contribution claims, the schemes were expected to do this by: (1) reducing the cost of energy bills and therefore reducing expenditure for households thus freeing up spending for other household items, (2) providing financial support that could be used on energy, but also – possibly – on other household spending.

The achievement of these outcomes was dependent upon the schemes being effective in reaching their targeted recipients through the chosen delivery mechanisms; upon scheme communications being effective, and upon those receiving the support adjusting their behaviours in response to the scheme (or stopping themselves from adjusting to any negative behaviours in response to energy price rises on receiving scheme support).

Household borrowing and cuts in essential spending and savings over the intervention period

Winter 2022/23

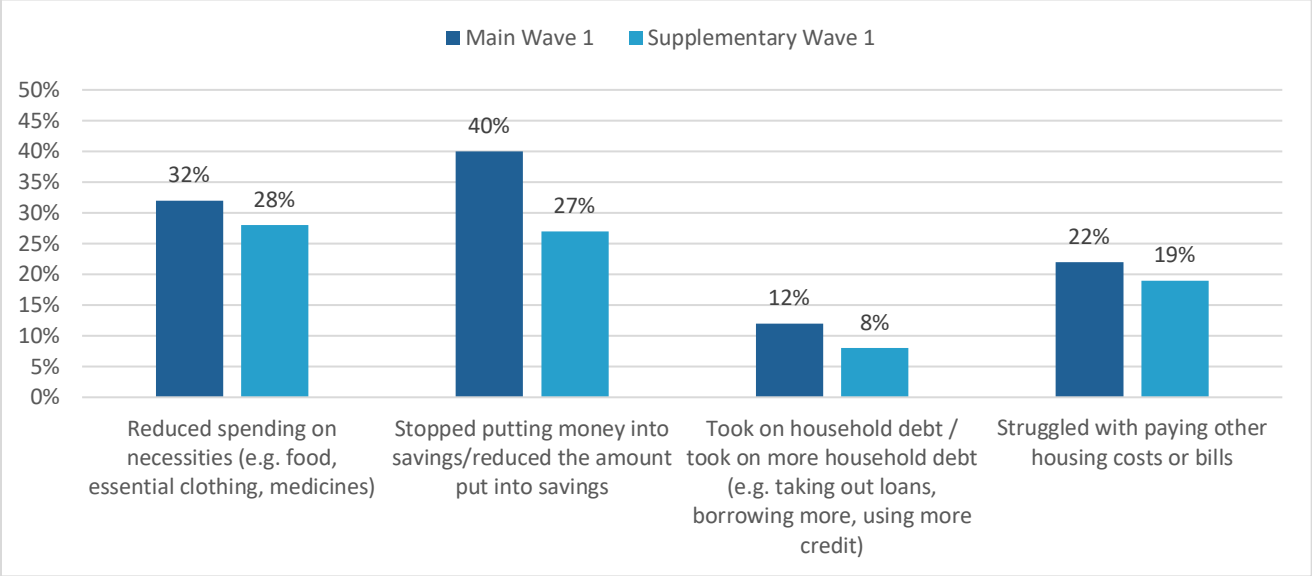
The evaluation investigated the expenditure of households outside of their energy bills during winter 2022-23, including exploring the various strategies households employed to cope with increased financial pressures.

Around a fifth (19%) of households reported in the Wave 1 main survey that they had borrowed money, from any source, to pay for their energy bills or costs, since November 2022. In the supplementary survey of EBSS AF applicants, 14% reported this in Wave 1. These findings from the Ipsos surveys for this evaluation are broadly similar to CCNI data that showed that 13% of households described their financial situation in February/March 2023 as struggling with energy bills and often "behind in payments, having to use a credit card or borrow money".[113]

The Wave 1 main household survey (and supplementary survey) highlighted that 32% (28%) reported reducing spending on necessities (such as food, essential clothing, medicines) (see Figure 6.11).

[113] CCNI, May 2022. A Review of Fuel Poverty Levels in Northern Ireland.

Figure 6.11: Adoption of non-energy expenditure mitigation strategies due to higher costs of home energy in winter 2022/23 (Wave 1)



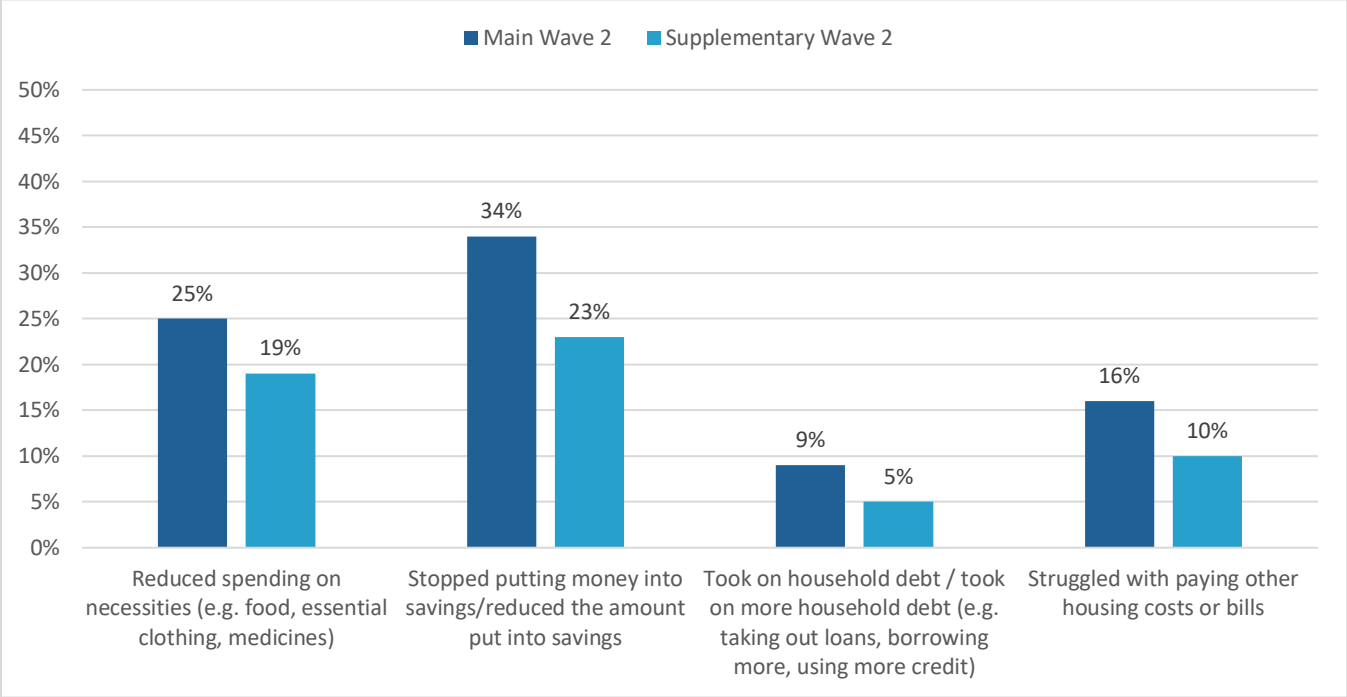
Source: Ipsos survey, Main Wave 1, Supplementary Wave 1. E1. During winter 2022- 2023, energy bills for most households were higher than they had been in previous years. What impacts, if any, did the increased costs of home energy have on your household? Base: All (n=1396), (n=539).

Winter 2023/24

Energy prices were higher in winter 2023/24 than the previous winter,[114] however the proportion of households who said that they had not had to borrow money or use a credit card to pay for energy bills in winter 2023/24 was also higher (81% of Wave 2 main household survey respondents compared to 75% in Wave 1). There was no significant difference among supplementary survey respondents on borrowing between Wave 1 and Wave 2 (see Figure 6.12).

[114] Based on The Consumer Council's calculated composite index (all three energy prices combined to create one overarching figure which uses appropriate weighting to reflect usage and market share). https://www.consumercouncil.org.uk/research/home-energy-index

Figure 6.12: Adoption of non-energy expenditure mitigation strategies due to higher costs of home energy in winter 2023/24 (Wave 2)



Source: Ipsos survey, Main Wave 2, Supplementary Wave 2 E1. During the past winter (from December 2023 - February 2024), energy bills for most households were higher than they had been in previous years. What impacts, if any, did the increased costs of home energy have on your household? Base: All. (n=847), (n=363)

In the main household survey, the proportion of households reporting negative impacts on borrowing, essential spending and savings due to higher energy costs decreased between winter 2022/23 and winter 2023/24. Households were also asked at Wave 2 whether (since November 2023) their household had needed to borrow money, from any source, to pay for energy bills. The proportion of households who reported borrowing money to pay an energy bill remained similar between Waves 1 and 2 of the main survey. Additionally, when asked about the impacts of higher energy costs in both the Wave 1 and Wave 2 main survey, the proportion stopping or reducing the amount they put into savings decreased from 40% to 34%, and the proportion reporting they reduced spending on necessities fell from 32% to 25%.

Overall, over the intervention period a large minority still reported that energy costs meant that they reduced spending elsewhere, though the severity and impacts of this reduced spending are not clear.

Agreement of evidence with hypothesised contribution

Around two fifths (44% in the main survey and 41% in supplementary) stated they would have had to reduce spending on other necessities. Half of those in the main survey(50%) and a third of EBSS AF recipients (33%) would have stopped putting money into savings or reduced the amount saved.

As described above, the process evaluation in Chapter 5 highlights that payments were effectively processed, either by energy suppliers for EBSS AFP or by bank transfers after successful applications made to Arvato, with the vast majority of households receiving support (in total there were c.820,000 EBSS AFP payments made of which 99% were bank transfer

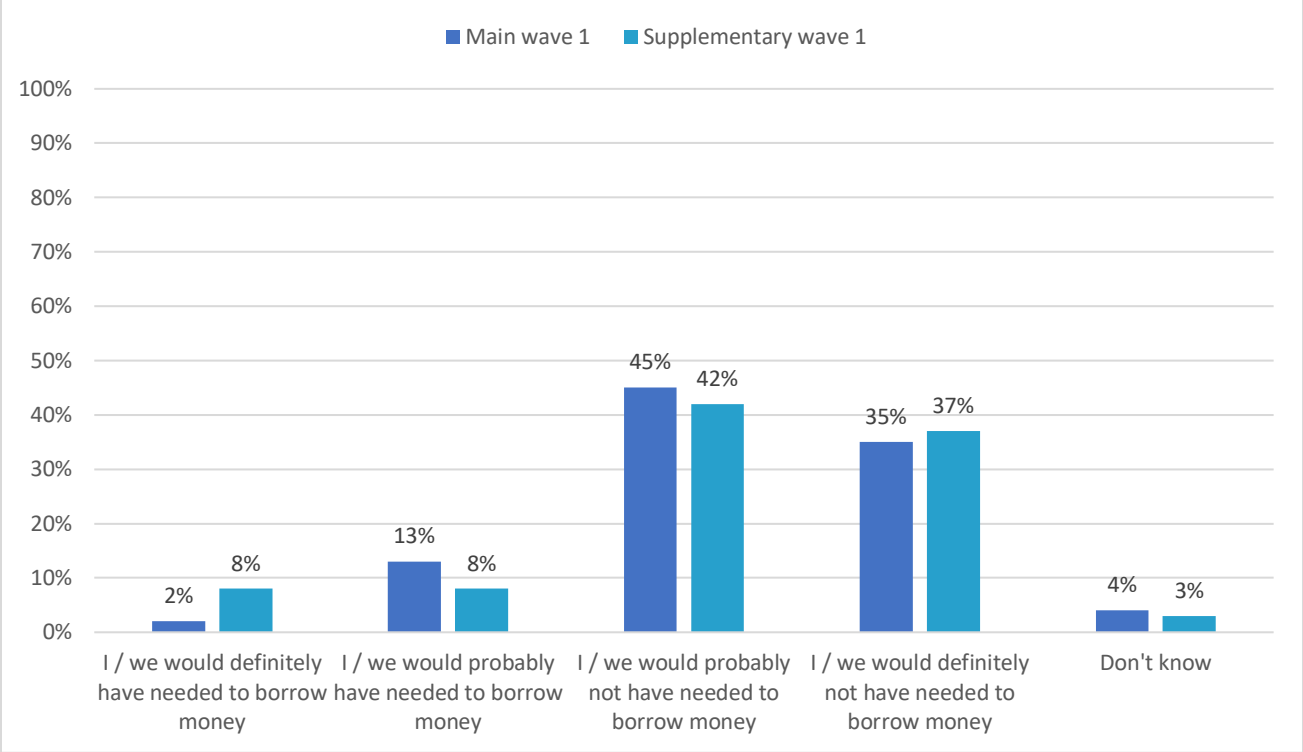
payments and 98% vouchers). Overall, these payments reduced energy bills, thus limiting the extent to which households would have required other mitigation strategies to meet the costs of their energy consumption.

In many cases, the adoption of mitigation strategies (such as reduced spending on necessities) would have been a decision made prior to a household receiving an energy bill or the payments being processed and issued. As shown in the qualitative research, many households reacted proactively to changes in energy prices and their impacts on bills. Households would have needed to be more reassured earlier to prevent individuals from making pre-emptive decisions on whether to adopt mitigation strategies.

Magnitude and prevalence

According to the main household Wave 1 survey, of EBSS AFP recipients who did not borrow money to pay for energy bills/costs, 13% stated they would probably have needed to borrow money and 2% would definitely have needed to borrow more money without the government support. However, this does not account for the schemes' contribution to outcomes where the household did borrow in winter 2022/23 and might have had to borrow even more without the government's support (Figure 6.13)

Figure 6.13: Likelihood of needing to borrow money, from any source, to pay energy bills without government support in winter 2022/23



Source: Ipsos Wave 1 main household survey and Wave 1 supplementary survey F8. Likelihood of needing to borrow money during winter 2022/23 without financial support for energy bills (counterfactual scenario) Base: All EBSS AFP who received the payment/voucher, and who had not borrowed money (n=748) Base: All EBSS AF who received the payment/voucher, and who had not borrowed money (n=44, note small sample size)

Heterogeneity

Borrowing

The surveys indicate that the households who were most likely to borrow to pay for energy over the intervention period were those on lower incomes and those with greater burden on their household expenses (due to having more people in the home or to being unemployed). In addition, those on PPMs and households with an illness or disability were also more likely to borrow money. .In the main Wave 1 survey, the proportion of households borrowing to pay for energy was higher among the following groups:

- Unemployed respondents (45%), compared with working people (20%) and retired people (4%)
- Those renting their home, either from NIHE or a housing association (44%) or from a private landlord (42%), compared with homeowners (12%)
- Those with 3 or more people in the household (26%), compared with those with 1 or 2 in the household (14%)
- Those on lower incomes (27% among those with a household income of under £25,000, compared with 12% of those with a higher income). This was also the case among EBSS AF recipients (18% compared with 9%).
- Households on a PPM meter (35% compared with 10% paying by direct debit).
- Households with an ill or disabled person (27% compared with 15% of other households).

In the Wave 2 main survey, overall 17% of households reported not having to borrow to pay for energy since November 2023. Those subgroups that were more likely to say that they had to borrow included; 16-34 year olds (27%), 35-44 year olds (28%), renters (those renting from private landlords, 39% and those renting from council/housing association, 34%), 3-4 person households (21%), those earning up to £24,999 (24%), those living in the most deprived areas (27%), those on PPMs (31%), those with illness or disability within their household (26%), those on universal credit (54%) and those on PIP (42%).

Non-energy expenditure on necessities

Almost a third (32%) of households in NI reported having to reduce spending on necessities in winter 22/23 due to increased energy costs (Wave 1 main household survey). The profile of households more likely to report this was similar to those reporting more debt, with unemployed households, renters (private and council), low-income households, households on prepayment meters, larger households all more likely to say they had to reduce their spending on necessities. Additionally, this those more likely to reduce spending on necessities also included households with a member that has a long-standing illness or disability more likely to report reducing spending on necessities (41%). Over a quarter (28%) of supplementary survey respondents (EBSS AF scheme only) also reported having to reduce spending on necessities in winter 2022/23. Among these respondents, groups that were more likely to report this, included larger households, low-income households, and households with a member that has a long-standing illness or disability.

Savings

Two fifths (40%) of households surveyed in the main Wave 1 survey reported reducing or stopping savings contributions due to increased energy costs during the winter of 2022-2023. Households more likely to report cutting back or stopping savings were full-time workers, larger families, homeowners, and those not receiving government fuel/energy bill assistance. These were different subgroups of households to those reporting (in the sections above) increased debt or reduced spending on necessities. It could be that this was due to pre-existing saving habits, with some groups, such as low-income households, being less able to save even before the energy price hikes.

This analysis shows that the types of households most likely to report having to reduce spending on household essentials and other items are those with lower incomes but also those with greater pressures on their finances (e.g. due to having a larger household or a lack of other support).

Those more likely to report benefitting from the schemes

Within the Wave 1 Main survey, the groups who were more likely to have benefitted from the schemes, were those who in the absence of the schemes would have had to use savings, reduce spending on necessities or borrow money to pay for energy. Those more likely to say they would have had to stop or reduce saving without the schemes, included graduates (59%), those working full time (58%) and those in managerial, administrative and professional occupations (57%).[115] Respondents who were more likely to report that they would have had to reduce spending on necessities without the schemes, included those in receipt of job seekers or employment support allowance (67%), those receiving PIP (68%) and those who were unemployed more than 12 months (68%).[116] The groups more likely to say they would have had to borrow money included those on Universal Credit (55%), those renting from council/housing association (54%) and those who worked in a semi-routine job (38%).[117]

Within the supplementary survey, those more likely to say they would have had to reduce savings in the absence of the schemes included those qualified to Higher Education but below degree level (53%) and those aged 35-44 (48%).[118] Those more likely to have had to reduce spending on necessities included those aged 45-54 (55%), those renting from a private landlord (60%) and respondents receiving PIP (58%)[119].The extent of this change in spending patterns was reflected in the interviews, where households discussed how they had to reduced spending on necessities and luxuries in order to afford energy bills during winter 2022/23.

[115] Main survey question E2d. The proportion for all subgroups was 50%.
[116] Ipsos Wave 1 Main survey E2d. Impact of winter 2022-23 on household energy bills without financial support (counterfactual scenario). Base: All (n=1396). Across all subgroups within the survey, 44% of respondents reported that they would have had to reduce spending on necessities.
[117] Ipsos Wave 1 Main survey F8. Likelihood of needing to borrow money during winter 2022-23 without financial support for energy bills (counterfactual scenario) Base: All EBSS AFP who received the payment/voucher, and who haven't borrowed money (n=761). Across all subgroups, 16% of respondents reported that they would have probably or definitely had to borrow money.
[118] This compares to a third (33%) of respondents that reported they would have had to reduce their savings, across all subgroups.
[119] This compares to the proportion across all subgroups which was 41%. E2a. Impact of winter 2022-23 on household energy bills without financial support (counterfactual scenario) Base: All EBSS AF who received the payment (n=461).

> *"Things around the house can wait, getting something new or things painted have been on hold because we do not want to spend money willy-nilly and bills needed to be paid so we are being very careful. Did not want to spend any cash as needed to spend on necessities."*
>
> *Wave 1 interview participant, EBSS AFP recipient.*
>
> *"Do not do holidays like we used to, do not go out as we know we have those bills to pay. I look at people and wonder how they are managing."*
>
> *Wave 1 interview participant, EBSS AF recipient.*

Outside of the essential spending categories impacted by the rise in energy prices, 60% reported in the Wave 1 main survey that without the support they would have had to cut back on other spending (e.g. holidays, meals out, days out). The subgroups more likely to say this included those aged 35-44 (67%) and those from lower managerial, administrative and professional occupations (71%).[120] By comparison, 44% of respondents to the supplementary survey reported that they would have cut back on this type of spending.

Although there was some evidence from a few of the household interviews that the energy affordability schemes helped limit borrowing and reduce debt, a few household interviewees also reported that they still needed to borrow despite the schemes. For example, one participant said that they had increased their overdraft and their use of credit cards to avoid going into arrears and were unsure that the schemes had impacted this or prevented them from having to go into arrears. Another EBSS AFP and EPG recipient interviewee said that they only avoided going into arrears in winter 2022/23 (i.e. when the schemes were running) because of financial support from a family member: *"If I had not had my sister to help, I would be in arrears and my sister helps me a lot. I do not know where I would be without her".* Another EBSS AFP and EPG recipient interviewed in Wave 1 of the evaluation had had to use their holiday savings to pay for increased energy costs despite receiving the EBSS AFP payment*: "It did not make a difference – still had to dip into savings. It hit a lot of us hard."* Another participant said that the amount they could save reduced by half in 2022/23 and that the money they received through the scheme made no difference to what they could put aside into their savings.

Interpretation of the evidence and discussion of the risk of bias

Overall, the evidence of the schemes' effects on household spending is low. The strength is: (1) the existence of some behavioural data; and (2) the counterfactual statements from the survey responses. The limitations of the evidence are: (1) The survey evidence is insufficient to indicate severity of the effects; (2) there is no baseline data on household expenditure; and (3) the behavioural data is limited in demonstrating a causal link between energy prices and other household spending behaviours.

[120] E2d. Impact of winter 2022-23 on household energy bills without financial support (counterfactual scenario). Would have had to reduce other spending. Wave 1 household survey (n = 1396)

6.3 Health and Wellbeing

6.3.1 Contribution Claim HW1: Health and Wellbeing

HW1: Schemes limit negative mental and physical health impacts arising from increases in energy bill costs

The contribution story being tested

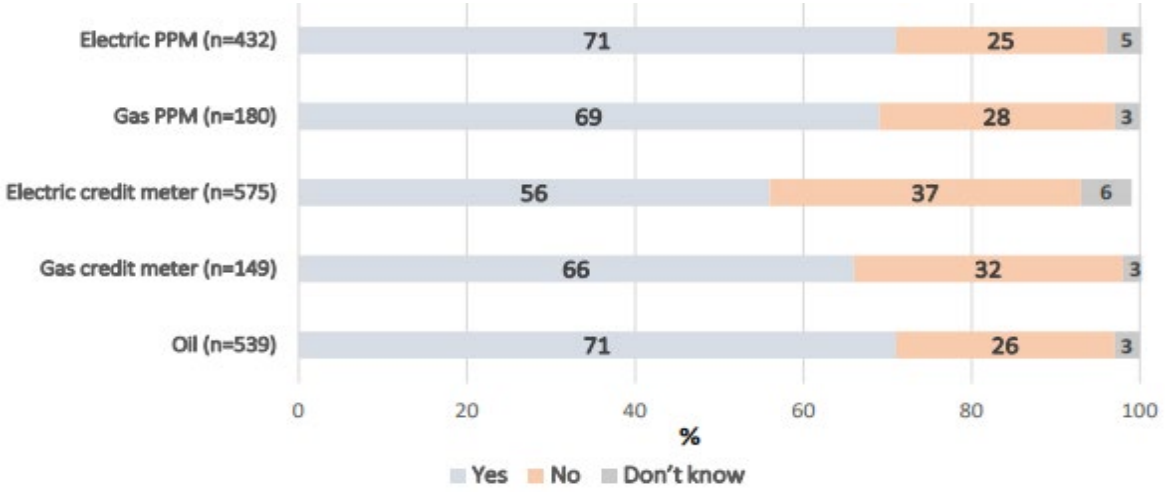
The energy affordability schemes were expected to limit the adverse effects of rising energy bill costs on household physical and mental health. The causal assumption was that by reassuring households that financial support would be provided and/or by providing that support, households would be less worried about being able to afford to heat their homes and would heat their homes to a level that prevented exacerbation of cold related illnesses. This objective is underpinned by the well-evidenced assumption that cold / underheated homes can exacerbate pre-existing physical conditions such as respiratory illnesses and disabilities and can also negatively affect mental health.

Mental and physical health impacts arising from increases in energy bill costs over the intervention period

In 2023, a CCNI study[121] found that from research conducted in February/March 2023 just over half (51%) of those surveyed said that they were not coping well with energy bills (at the time of the research) and (49%) said they were coping well (see Figure 6.14). However, nearly all (94%) of the respondents in this survey were concerned to some extent about the current cost of energy. Those who said they were not coping well were more likely to be on lower incomes, be in fuel poverty, and live in urban areas. The same study also showed that many households were worried about not being able afford their energy bills, with 71% of electricity PPM and HHO customers being worried, followed by those on gas PPM (69%) and gas credit meter (66%).

[121] CCNI (2023) The impact of the energy crisis on affordability and the impact of energy transition on consumers.

Figure 6.14: Percentage of households worried about not being able to afford their energy bills (CCNI, survey of 1007 consumers, spring 2023)



Source: CCNI research, November 2023[122]

The DESNZ Public Attitudes Tracker (as shown in Figure 6.4 under claims HC1/HC2) also surveyed the extent to which respondents were worried about paying for energy bills between spring 2022 and spring 2024. This showed that worry about paying for energy bills varied between spring 2022 and spring 2024 for NI, complicated by a change in methodology. Worry peaked in spring 2023, dipped in summer 2023 and rose again the following spring. Overall, these findings are inconclusive, although it could be assumed that without the support, concern in spring and summer 2023 may have been even higher.

As discussed in the HC1/HC2 contribution claims, around one third of households in NI experienced challenges in maintaining a comfortable home temperature during the winter of 2022/23. Of those who reported (in the Wave 1 main household survey) they were not able to heat their homes to a comfortable temperature all of the time in winter 2022/23, the majority (56%) of respondents said that underheating their homes had impacts on their or their household's physical or mental health. Specifically, 8% said there was an impact on only their physical health, 18% on their mental health and 31% on both. Only a third (33%) of respondents said that there was no impact on their physical or mental health. Findings from the Wave 1 supplementary survey were similar: of those who reported they were not able to heat their homes to a comfortable temperature all of the time in winter 2022/23, 54% of EBSS AF recipients said there was an impact on physical or mental health, with 36% saying there was no impact on physical or mental health.

No statistically significant difference was seen between Wave 1 (56%), and Wave 2 (58%) , in the proportion of respondents reporting an impact on their physical or mental health if they had not been able to heat their homes all the time or whenever it was cold in both winters.

Respondents who said they had not been able to heat their home to a comfortable temperature all of the time were also asked about experiences in winter 2022/23 for them or their household. Almost half (47%) of Wave 1 main household survey respondents reported that this

[122] CCNI (2023) The impact of the energy crisis on affordability and the impact of energy transition on consumers.

led to stress or anxiety about paying energy bills, while over a quarter (27%) said they experienced anxiety about the health of household members. Almost a third (32%) said there was more illness in their household and 14% experienced low productivity when working from home. These findings were similar among respondents to the Wave 1 supplementary survey (EBSS AF recipients): 43% said that this led to stress or anxiety about paying energy bills, while 23% said they experienced anxiety about the health of household members. Around a third (31%) of EBSS AF recipients said there was more illness in their household and 12% experienced low productivity when working from home. Results were generally similar in Wave 2 of both surveys (for winter 2023/24). The only difference between winters was an increase in reported difficulty sleeping due to the cold: in the main household survey there was an increase from 23% at Wave 1 to 27% at Wave 2 and in the supplementary survey this increased from 20% at Wave 1 to 28% at Wave 2.

Qualitative interviews with households further highlighted the negative physical health impacts of households' underheating in winter 2022/23. For example, in Wave 1, one participant spoke about black mould developing in their homes due to reducing heating use, which led to them needing to use an inhaler. Another participant spoke about their children often being ill due to cold.

> *"Everyone was ill all the time – had cold sores etc. The kids complained about it being cold. Fortunately, none of them suffer from asthma." EBSS AFP recipient*

Many participants in the Wave 1 interviews reported experiencing increased levels of stress and anxiety in Autumn 2022 in response to increasing energy costs in winter 2022/23. Survey participants (Wave 1 household and AF supplementary) perceived the negative impacts on physical and mental health associated with being unable to heat the home all of the time to be worse in winter 2022/23 than in previous winters, reflecting the pressure of higher energy bills. For each type of impact, most respondents to the Wave 1 main survey (and Wave 1 supplementary survey) said this was worse in winter 2022/23 than in previous winters. Specifically, 88% (79%) said that difficulties with sleeping due to the cold had got worse, as did 86% (80%) in relation to stress or anxiety about paying energy bills, 86% (75%) in relation to anxiety about the health of household members, 82% in both surveys reported low productivity when working from home, and 82% (78%) more illness in the household.

Magnitude, prevalence and heterogeneity of mental or physical health impacts associated with rising energy bills

There is limited direct evidence of the magnitude or prevalence of the contributions of the schemes themselves to limiting either the mental or physical health impacts resulting from rising energy bills. Some of the qualitative evidence does suggest the schemes were important in helping limit the impacts of rising energy bills on health.

Some of the interviewed recipients of the EBSS AFP scheme spoke about the positive impact that the scheme had on alleviating the negative health impacts of not being able to afford energy bills/heat their homes properly, but that this relief was only short-lived. For example, one disabled participant said that the money was quickly spent on energy costs:

> *"I am disabled and when I kept the gas off the pains were a lot worse because of the conditions and the way I had to live. [The £600 payment] did [alleviate issues] at the time but it was quick in the hand then out of the hand. I know friends who didn't need it, but I really needed it, and the money went to the bills." (EBSS AFP and EPG recipient interviewee, Wave 1)*

The proportion that was able to afford to heat their home comfortably only some of the time was higher among the following groups in the Wave 1 main household survey[123]:

- Those renting their home: 53% of NIHE and housing association renters and 44% of private renters (compared with 31% of homeowners).
- Lower income households (44% of those with an annual income of under £25,000, compared with 21% of those with an income of £25,000 or more)[124].
- Households with an ill or disabled person (42% compared with 30% of other households).
- Households on any PPM meter, smart or traditional (46% compared with 29% paying by direct debit).
- Households with mains gas and electricity (39% compared with 32% among those with mains electricity only).

In the main Wave 1 survey, some groups of the population were more likely to report the various impacts on their physical and mental health:

- An increase in illness in the household was more likely to be reported by social or private renters; lower income households; households with an ill or disabled person.
- Experiencing stress or anxiety about paying energy bills was more likely to be reported by larger households and households on any PPM meter (smart or traditional).

Agreement of evidence with hypothesised contribution

The schemes were intended to support households with their energy bills and in doing so reduce stress over increased and potentially unaffordable bills that could affect mental health, and also reduce underheating that could impact physical health.

Evidence from the household interviews suggests that the schemes helped alleviate some of the negative physical and mental health impacts arising from increased energy bills. Many Wave 1 interviewees spoke about how the scheme alleviated their stress about being able to afford their energy bills / heat their homes comfortably. For example, one participant said that the £600 payment alleviated the constant worry of paying the bill:

[123] Compared to the overall proportion of 28% reporting this at question G1.
[124] A similar pattern applied to EBSS AF payment recipients (38% of those with an annual income of under £25,000, compared with 20% of those with an income of £25,000 or more).

> *"It felt like a life saver – the unit cost reduction went over our heads, but the £600 was the thing we focused on" (EBSS AFP and EPG recipient, Wave 1).*

Some participants said that the schemes helped alleviate their stress and anxiety in the short term, but not in the long term.

> *"'They helped us, but the prices have skyrocketed so much, that the help will get sucked up by the government via the taxpayer. Nothing in this life is for free.'"*

Another participant spoke about the negative impacts that being unable to heat their home properly was having on their and their family's mental health. He said that he was *"getting down, feeling depressed"*. He also said that his wife has mental health issues, so it was a struggle. He said that *"the £600 payment was a godsend, we could pay for gas and electric that it was like a weight just lifted off our shoulders, it definitely helped us".* Another participant spoke about the fact they had no choice but to heat their home because their child had asthma so would otherwise risk them being ill. They said that the £600 payment alleviated the stress about affording the cost of heating the home.

In the Wave 1 main household survey, respondents who had received support from EBSS AFP in winter 2022/23 and said that they had been able to heat their home to a comfortable temperature all of the time, were asked what they thought the situation would have been if they had not received the EBSS AFP support. A majority of these respondents (65%) still thought that they would have been able to afford to heat their home to a comfortable temperature all of the time, even without the payment. In the Wave 1 supplementary survey 56%) said that would have been able to afford to heat their home to a comfortable temperature all of the time, even without the payment.

Overall, the evidence presented above confirms (to some degree) the different causal assumptions of the scheme ToCs. It indicates that there is a causal relationship between energy price rises and household concern and/or anxiety over being able to afford / perceiving that they are able to afford to pay for energy, and a similar relationship between concerns about being able to afford energy bills with energy behaviours such as turning down the heating and the potential detrimental impacts of these behaviours for physical health. The evidence also suggests that energy affordability schemes played a role in limiting the mental and physical health impacts arising from increases in energy bill costs but were insufficient to mitigate these impacts for some groups of the population.

Interpretation of the evidence and discussion of the risk of bias

The survey and qualitative evidence highlights that a substantial proportion of those surveyed/interviewed were concerned about energy bills and physically affected by underheating. The evidence presented in this section in relation to (a) the extent to which mental and/or physical health impacts related to energy costs/behaviours to manage energy costs changed or remained the same, and (b) the contribution of the schemes to the minimisation of mental and physical health impacts has a medium strength.

The strengths of the evidence are: (1) The logic of the causal link between receiving support for energy bills minimising mental health impacts (concern over increasing bills) and physical health impacts (resulting from underheating) (2) The survey evidence is nationally representative and it suggests strongly that concern over bills or physical impacts from underheating did not increase during the period that the energy affordability schemes were active. (3) Secondary data on concern over bills and physical impacts from underheating were similar in the winters before (2021/22) and after (2023/24) scheme implementation when there was no support, but energy bills were lower, and winters were milder. (4) The survey evidence and qualitative evidence converge in indicating that there were concerns over bills and underheating but that the scheme support provided some reassurance around affordability and prevented underheating from worsening.

There are limitations on the evidence in terms of the lack of a straightforward counterfactual in that comparison with the preceding and following winters is impacted by confounding factors such as weather, and fuel costs, particularly HHO, which was not affected by EPG. The evaluation tried to understand what would have happened without the intervention but the reliability of evidence is affected by the risk of bias associated with self-reporting and perceptions, which are likely to have been affected by many other factors (including their state of health at the time of responding). In addition, survey and interview respondents were recalling a point in time 6-12 months before the time of the survey, thus recall may have affected accuracy.

6.4 Energy suppliers

This section explores how scheme interventions may have affected energy suppliers. It examines a range of domestic energy market characteristics, including supplier solvency rates and market entry/exit during scheme delivery. It also assesses the impact of scheme interventions on wider energy markets, including on how supplier uptake of scheme support may have led to energy market distortions.

Before setting out the evidence, it is important to note that the NI energy market is very different to that operating in GB and therefore, whilst the issues raised by the evaluation questions are important, they are of less relevance to the NI market. As detailed in Chapter 2 regarding the wider context, the NI energy market is much less competitive than GB and the main supplier (Power NI) has its prices regulated by UREGNI. Also, in November 2022, NI energy suppliers together with UREGNI, the Consumer Council and the NI government departments for Communities and the Economy, signed up to an Energy Charter which committed them to a series of measures to provide practical support to vulnerable consumers. Finally, the main heating fuel source and way of payment differs from GB. The main fuel source for heating is HHO in NI compared with gas in GB, and PPMs are much more prevalent. How households purchase HHO is very different to purchasing gas and electricity, in that HHO has to be bought in advance and can be stored, whilst electricity and gas cannot. This gives households more control over when they buy their fuel. Similarly, with PPMs, whilst households can much more easily be cut off from electricity and gas if they fail to top up the PPM, using these payment mechanisms also encourage greater awareness of what is being

spent on fuel, which can lead to some degree of self-rationing when prices increase. These differences mean that households have more control over when to purchase supplies and can self-ration.

6.4.1 Contribution Claim ES1: Supplier solvency and the energy market

ES1: The schemes limit the risks of energy supplier insolvencies through keeping customer debt levels low and delivering the schemes in a way that helps smooth cashflow fluctuations.

The contribution story being tested

The schemes were intended to prevent a large number of households not being able to pay their bills leading to them being in arrears in their payments to energy suppliers and accumulating energy debt (HF1); alternatively, for those paying for their energy via PPMs, inability to pay for energy could result in disconnection (HC3). It was then assumed that cumulative energy debt and/or disconnection could impact the solvency of suppliers . The schemes were intended to limit the risk of supplier insolvency and distortions to the energy market by: (1) applying the EPG to household electricity and gas prices, which – for households paying energy bills – would be received as a reduction in the price they pay, (2) providing households with £600 that could contribute towards the payment of their energy bills (via EBSS AFP or EBSS AF), and (3) timely provision of support via the schemes (EPG, EBSS AFP and EBSS AF) ensuring that energy suppliers were not impacted by cashflow fluctuations.

Risks to energy supplier solvency over the intervention period

In the sub-section concerning HF1, the impacts of the schemes on energy debt are explored. This analysis identified that survey evidence points to relatively low levels of energy debt prevalence but there is some evidence that there were pockets of high magnitude energy debt. The survey evidence also indicates that those considered as most vulnerable (those on lower incomes, ill or disabled) were significantly more likely to experience energy debt. Findings from HF1 are of relevance to this contribution due to the impact that consumer debt can have on suppliers' profitability and financial viability. Similarly, findings from HC3 suggest that while the energy affordability schemes may have had some positive impact on limiting the scale of energy supply disruptions, a proportion of households still experienced these challenges. Again, these findings are of relevance to this contribution because disconnection would affect energy suppliers' revenue, profitability and, potentially, solvency.

Energy suppliers reported that there was an increase in self-disconnection for those using PPMs and a small increase in debt overall. UREGNI monitors customer debt and reported that whilst the number of people in debt had not increased whilst the schemes were in place, the amount of debt for some individuals has increased. Suppliers were also active in supporting vulnerable customers to help minimise energy debt and disconnection and all signed up to the consumer energy charter which had the same objective. As noted below, in some cases this affected suppliers' profitability.

A review of the audited accounts for the financial years 2021/22, 2022/23 and 2023/24 for each of the six electricity and gas suppliers in NI was conducted to assess solvency of profitability over the relevant time period. This revealed that turnover decreased between 2021/22 and 2022/23 for three of the six organisations but increased in the others. The trend for operating profit before tax was mixed with three showing decreasing profit from 2021/22 to 2022/23 which then increased in 2023/24, one showed a steady decrease in profits across the three financial years and two showed a steady increase. One supplier exited the NI residential electricity market in May 2024, but continues to supply electricity to businesses in NI and to households and businesses in the Republic of Ireland.

The reasons given by the energy firms for their financial performance during the period when the energy affordability schemes were active, ranged from increased profits as a result of increased customer numbers (switching increased with greater concerns about bills) and higher non-residential electricity margins, and decreased profits due to commitments to reduce consumer exposure to cost volatility.

Interviews with UREGNI, NIEN and four NI energy suppliers revealed that overall they did not consider there was any real risk of insolvency because of the size and stability of the suppliers meaning that they can manage any cash flow challenges fairly easily. In addition, interviewees considered that NIEN worked well with the suppliers to estimate the impacts of the increase in energy prices and any potential support that might be needed. This meant that there was no need to initiate the Supplier of Last Resort (SoLR) process. [125]

Magnitude and prevalence of energy supplier insolvency over the intervention period

As detailed above, energy suppliers remained solvent throughout the energy affordability schemes' intervention period, although three of the six suppliers showed decreased profits in 2022/23.

Agreement of evidence with hypothesised contribution

The evidence available suggests that the energy affordability schemes contributed to limiting factors that could impact energy suppliers' insolvency risks such as consumer debt levels and underconsumption/self-disconnection.

None of the energy suppliers directly reported that the energy affordability schemes impacted their risk of insolvency, however some did report that there was a reduction in the factors underpinning their financial health. Interviews with energy suppliers and regulators did highlight the view that the schemes helped to limit energy debt. Interviewees said that self-disconnection would have been much higher in the absence of the schemes, and one supplier considered that EPG was a crucial intervention that avoided major financial hardship for customers although also suggested that this would be very difficult to prove.

[125] The SoLR procedure was established in 2003 to ensure that domestic customers can continue to receive supplies if their energy supplier fails. The SoLR process has been activated more frequently as more energy suppliers leave the market. In NI, Power NI is the SOLR because it is regulated by UREGNI.

In addition, the Strategic Report supporting the 2022/23 audited accounts for one supplier stated that the 'the support measures…have been positive for the Company's residential and business customers'. Finally, one energy regulator interviewee said that smaller suppliers would have particularly struggled financially without the schemes: "Smaller suppliers would have struggled without the schemes; this is evidenced by market behaviour and reactions as a lot of suppliers just weren't offering contracts."

Overall, there was a much lower risk of energy suppliers becoming insolvent in NI compared with those in GB; due to their size, stability and relatively low competition in the NI market. However, it is likely that the energy affordability schemes limited increases in energy debt and disconnection which could have impacted their profits.

Interpretation of the evidence and discussion of the risk of bias.

Overall, the evidence of the schemes' effects on energy supplier solvency is not strong.

With regards to energy debt (HF1), the evidence in relation to (a) the extent to which debt levels changed or remained the same, and (b) the contribution of the schemes to debt minimisation has a low to medium strength. Overall, the evidence of the schemes' effects on energy affordability and on reducing the prevalence and magnitude of disconnections (HC3) is medium.

It is important then to consider the linkage between energy debt and disconnection on supplier solvency. As the NI energy market is characterised by a small group of suppliers that have been in place for some time, there is less competition. This, together with the existence of an energy charter to support vulnerable customers and minimise energy debt, means the situation was considerably less volatile than in GB. However, half of energy suppliers reported reduced profits before tax in 2022/23 compared to the preceding and following years, and in interviews, suppliers and UREGNI highlighted that the schemes protected customers and helped to limit energy debt and disconnection meaning profits could have been reduced further without the schemes in place.

7.Conclusions and lessons learnt

The purpose of this interim evaluation was to understand how the energy affordability schemes, designed and delivered by DESNZ in 2022/2023, supported households in NI. Using a theory-based evaluation approach, a process and outcome evaluation was conducted to provide evidence and insights into the efficacy of these schemes and the effectiveness of their design and delivery in the NI context. A final impact and economic evaluation for the UK energy affordability schemes is currently underway, which builds upon the evidence collected in this and the GB evaluations.

At the time of designing the energy affordability schemes, the UK faced unprecedented challenges. Inflation was surging, rising by 10.1% in the 12 months to September 2022; the UK and the rest of the world were emerging from the effects of COVID-19, which included a worldwide recovery in energy demand, and energy markets across Europe were facing challenges resulting from the invasion of Ukraine. This resulted in wholesale energy prices rising to unprecedented levels, which would have been passed on to householders without government intervention.

Responsibility for energy policy is devolved in NI. However, due to the contextual backdrop of the political challenges facing NI at the time, specifically the lack of a functioning NI Executive, the UK government decided to extend the energy affordability schemes being developed for GB to support NI households. The schemes were therefore developed at pace and in a fairly unique situation with a NI specific energy support scheme designed and delivered by the UK government.

The section below sets out the key process and outcome conclusions from the evaluation and then presents lessons learnt that could inform the development of any future energy affordability schemes.

7.1 Process evaluation conclusions

7.1.1 Awareness, understanding and take up

Awareness, understanding and the delivery processes across EBSS AFP, EPG and EBSS AF differed, and this was reflected in households' different experiences of the schemes. To try and maximise the reach of the domestic energy affordability schemes, the UK government, in collaboration with consumer groups and representative bodies, implemented awareness raising activities across GB and NI. However, through interviews with stakeholders such as UREGNI, NIEN, and energy suppliers, a communications gap was highlighted, with a perception that communication and awareness raising activities focused on the GB schemes rather than those in NI.

Nonetheless, it was anticipated when the schemes were designed that all households, including hard-to-reach groups, would have an awareness and understanding of the support

available. It was implicit in the schemes' design that informing households about the schemes would lead to them taking the necessary steps to benefit from them, such as redeeming vouchers (for EBSS AFP) or submitting applications (for EBSS AF). It was also expected that increased awareness would provide reassurance to households concerned about rising energy bills, potentially encouraging the household to continue safe consumption of energy. However, not all households were aware of the schemes, particularly those in the EBSS AF category.

Similarly, although EPG was applied to bills automatically and did not require households to take any action to receive the support, awareness and understanding of the scheme had the potential to reassure households that their (gas and electricity) energy bills would not increase significantly and therefore maintain their energy consumption at safe levels. To support this, energy suppliers reported that they also ran communications campaigns and responded to queries. There was a high level of reach in NI of the EBSS AFP scheme, with 99% of those expected receiving support. The EBSS AF scheme had less than a third of the estimated eligible population apply for support and just under two-thirds of those who applied received support. This may have been linked to some overestimation of the potential EBSS AF population, but it may also have been related to this group having low awareness of the application process. In addition, some households found the application process for EBSS AF challenging, which may have contributed to the low take up. Therefore, any future rollout of similar support in NI would require further detailed analysis and understanding of the EBSS AF eligible population (households without a direct relationship with their energy supplier), to identify the best ways to engage with and support them.

7.1.2 Implementation

UREGNI and NIEN were engaged in the EPG scheme design and set-up process and energy suppliers viewed that this collaborative approach facilitated a smoother rollout, with suppliers saying they were actively involved in shaping the delivery model. The EPG approach is similar to standard business practices for energy suppliers and was a relatively straightforward approach for them to deliver. There were, however, more challenges with the EBSS AFP scheme which meant a different approach to their day-to-day work. For all schemes, whilst early engagement was appreciated, in interviews UREGNI, NIEN and some energy suppliers noted that the communication from DESNZ, particularly in the initial stages, lacked clarity and a nuanced understanding of the NI energy market. This is unsurprising, due to the speed at which the schemes were designed and implemented, and that NI energy was a devolved policy.

Some energy suppliers noted challenges in the administration of EBSS AFP payments, including the additional burden for suppliers of manual payments, causing customer confusion and increased volume of queries and customer calls. While any new scheme can cause confusion in its initial stages, energy suppliers felt that clearer guidance from DESNZ would have supported them and eased some of this burden. There are lessons to be learned from scheme delivery that should inform future interventions.

Advocacy group representatives highlighted the benefits of using the Post Office for voucher redemption. This was seen as accessible due to the relationship people already had with post

offices, as well as their regional spread. Therefore, this is a model of delivery that could be used again in any future rollout. However, their role was solely in relation to the redemption of vouchers whilst the energy suppliers were required to identify all relevant customers and credit their accounts or send them vouchers.

A further conclusion is that making payments direct to customers, either straight into the bank accounts of direct debit customers or by crediting smart PPMs, was the most effective and efficient way of paying EBSS AFP. The value of people paying by direct debit or having smart PPMs in this situation could be highlighted to customers to enable the swift provision of support in any future schemes.

Despite the rapid design and implementation, and some challenges with communications and delivery as noted above, the incidence of fraud was minimal across the schemes highlighting effective compliance processes and fund management.

7.2 Outcome evaluation findings

Noting the context in which the NI energy affordability schemes were designed and delivered and the speed at which they were put in place, the schemes were successful in reaching a large proportion of the population and were likely to have prevented a large increase in households struggling to pay their energy bills and the resultant impacts for mental and physical health. The aim of the energy affordability schemes was to limit any increase in undesirable outcomes for NI households, such as increases in energy debt, other household debt, energy disconnection or worsening health outcomes. Evidence from previous statistics shows that there was a significant level of fuel poverty in NI before the energy crisis hit. The schemes were not intended to rectify this but to prevent additional people falling into fuel poverty; in essence to provide a buffer against the most negative possible impacts.

Although this was an outcome evaluation not an impact one, the evaluation was challenged by the lack of a clear counterfactual given that these were universal schemes. The ongoing impact and economic evaluation of the schemes across the UK, due to report later in 2025, will further examine the net outcomes of the schemes, compared to a scenario based on absence of the interventions.

This section sets out the conclusions from the evaluation in relation to the key outcomes of supporting household consumption, household finances, health and welfare, and energy supplier solvency, using the conclusions from the contribution analysis reported in Chapter 6.

7.2.1 Household consumption

For winter 2022/23, 62% of respondents to the Wave 1 main household survey reported being able to afford to heat their home to a comfortable level all or most of the time. Around a third of NI households (34%) found it difficult to afford to heat their homes some of the time and 1% said they were not able to do this at all. For winter 2023/24, 73% said they were able to heat their home to a comfortable temperature all or most of the time and around one in four households reported this as only some of the time or not at all. The price elasticities modelling

and survey responses suggested some potential deadweight in that some households did not struggle to heat their homes before, during or after the scheme intervention. This is inevitable with a universal scheme and the ongoing economic evaluation will build on this analysis to quantify the deadweight of the schemes. There was evidence of households adopting some consumption strategies that could be potentially harmful for some groups, such as using their heating for shorter periods or heating to lower levels. It is not completely clear if these all had harmful outcomes; for some people, turning their thermostat down a couple of degrees and wearing extra layers does not cause negative outcomes (and has environmental benefits). However, for those with long term illnesses and disabilities, any underheating can worsen existing health conditions and there are likely to be poor health outcomes for all types of households if underheating is substantial and/or sustained.

There were no statistically significant differences between the two winters in the survey proportions of reported disconnections or loss of alternative fuels and some households still reported these challenges. However, evidence also suggests that the energy affordability schemes would have had some positive impact on limiting the scale of energy supply disconnections, particularly in the recognition that energy bills would have been even less affordable for those using PPMs or alternative fuels. Both energy suppliers and regulators believed that self-disconnections would have been significantly higher without these interventions,

7.2.2 Household finances

The three contribution claims related to household finances focused on the contribution of the schemes to limiting increases in energy debt and household borrowing and cuts in other essential spending and savings. Energy burden is introduced as an indicator of fuel poverty, which categorises households into two main groups: those spending under 10% of their income, after rent and mortgage expenses, on energy and those more than 10% who are considered to have a high ‘energy burden’.

EPG directly lowered households’ heating bills for those on direct mains electricity and gas contracts and the evaluation found that almost all of those eligible for EBSS AFP benefitted from the £600 support. A smaller proportion of eligible EBSS AF households benefited. There is good evidence that the majority of households used the monies received from EBSS AFP or EBSS AF towards their energy bills.

The number of households in energy debt when the schemes were introduced was relatively low and did not increase over winter 2022/23. However, there was evidence that those with pre-existing debt had increased their debt over winter 2022/23, although the total number of households in debt did not increase. Households in energy debt tended to be those on low incomes and/or to include long-term illness or disability in the household.

Around one third of the NI population was in fuel poverty when the schemes were introduced. All three schemes (EPG, EBSS AFP and EBSS AF) were expected to limit increases in fuel poverty. Providing the additional £200 for AFP on a universal basis was intended to address the high proportion of NI households that use alternative fuels as their main heating source.

This, however, did also mean that those using mains electricity and gas received a much higher level of support. Over the intervention period, over half of households experienced some difficulty in paying their energy bills and this level did not change noticeably between the winters of 22/23 and 23/24. The price elasticity modelling suggests that the risk of increased energy burden was mitigated by the schemes in terms of both prevalence and severity.

There was no evidence that the timing of the interventions (spring 2023) had an overly negative impact on those dependent on HHO, eligible for EBSS AF, or on PPMs. There are complex factors at play with these groups which could not be fully explored in this evaluation. Some households had a choice of when they pay for HHO and often could buy this in advance or in bulk. Those using PPMs may 'self-ration' their fuel energy whilst those paying by direct debit for mains gas and electricity have less control over their fuel spending. However, households on PPM do not benefit from costs being smoothed over the year as happens with the majority of NI direct debit customers so may have to pay more per month in the winter, and when energy costs increase suddenly. It should be noted, though, that a third of direct debit customers in NI are on variable contracts where they pay for actual consumption on a monthly basis, without smoothing over an annual cycle.

The knock-on effects of energy prices alongside other cost of living increases appear to have reduced non-energy household spending, though the severity and impacts of this reduced spending are not clear. The types of households most likely to report having to reduce spending on household essentials and other items were those with lower incomes but also those with greater pressures on their finances (e.g. due to having a larger household or a lack of other support).

7.2.3 Health and wellbeing

The schemes were expected to limit negative physical and mental impacts arising from underheating due to increases in energy bill costs. The schemes were intended to support households with their energy bills and in doing so reduce underheating that could impact physical or mental health.

The evaluation revealed substantial concern about paying energy bills that led to stress and anxiety prior to the implementation of the schemes. This level of concern remained broadly the same in winter 2022/23 and 2023/24 which is a positive finding as the weather was warmer and energy bills lower in winter 23/24. Similarly, the findings from the surveys in Wave 1 (winter 22/23) and Wave 2 (winter 23/24) had exactly the same proportion of respondents reporting that there was an impact on their physical or mental health from not being able to heat their homes all the time. However, qualitative interviews with households revealed that many felt that the schemes prevented increased anxiety and stress over being able to afford fuel bills and that they would have been colder and had more health impacts if they had not been implemented. For some who heated their homes by gas or electricity, EPG provided reassurance that fuel bills would not keep increasing and, for others, the £600 payment was seen as making a material difference to their fuel bills.

As would be expected with any universal scheme, there was a substantial cohort that did not have concerns about paying their bills before, during or after implementation and similarly did not underheat their homes and therefore had no physical impacts from doing so. However, the findings clearly show that physical and mental health impacts remained high for vulnerable groups; these would likely have been higher if the schemes had not been implemented.

Overall, the evidence suggests that the energy affordability schemes played a role in limiting the mental and physical health impacts arising from increases in energy bill costs (in terms of either concern about paying bills or underheating) but were insufficient to entirely avoid increases in these impacts for some groups of the population.

7.2.4 Energy suppliers

The schemes were expected to help limit the risk of energy supplier insolvency and distortions to the energy market in the period under evaluation. It is important to note that the NI context meant that there was far less concern about the financial resilience of suppliers in NI than GB going into winter 2022/23.

The six NI gas and electricity suppliers remained solvent during the period when the schemes operated. There were no clear trends in revenue and operating profit before tax across the financial years 2021/22, 2022/23 and 2023/24. One supplier exited the NI residential electricity market in 2024 with customer losses appearing to be the main reason. As highlighted in the household finances section, there is some evidence that the energy affordability schemes contributed to limiting factors that could impact energy suppliers' insolvency risks such as consumer debt levels and underconsumption/ self-disconnection. Overall, there was much less risk of energy suppliers in NI becoming insolvent than those in GB as a result of the increased energy costs due to their financial stability and low competition but it is likely that the energy affordability schemes limited increases in energy debt and reductions in usage, which could have impacted their profits.

7.3 Lessons learnt

This final section sets out the lessons learnt from conducting the evaluation that should be taken into account for the design and delivery of any future energy affordability schemes.

Scheme design

Any future energy affordability schemes could achieve even greater impact if they are tailored to the NI context taking account of the fundamental differences between its energy market and household characteristics and those of GB. For example, more focus is needed on the reliance on HHO and the large proportion of people using alternative fuels. However, DESNZ developed the schemes at pace and the obvious route to take was to tweak the GB schemes rather than taking a completely different approach tailored to NI. In addition, because energy policy was devolved there had not been a need for the same extent of expertise in NI policy in DESNZ before.

The schemes reached most eligible households but the lowest take up was on the AF scheme, the target recipients of which had a higher proportion than average of households on low incomes, older people and living in rural areas. Any future schemes should do more to identify and reach those groups.

Even where the schemes benefitted households as intended, the scale of support was not enough to avoid worsening outcomes for some households such as those on low incomes, using PPMs and/or where a member of the household has a disability or long-term illness. Any future schemes should consider how to identify these groups and the benefits of providing additional support.

Scheme delivery

Whilst the schemes were universal, the EBSS AF scheme was targeted at those without direct relationships with energy suppliers. This scheme was the least successful in terms of reach and uptake, likely because eligible households had to apply rather than automatically receiving the support and also because awareness was low. For any future schemes, communications could be targeted using appropriate advocacy and support groups to increase awareness. Communications strategies making use of word-of-mouth contacts might also encourage take up.

The accessibility of the Post Office, as the route through which households not paying by direct debit could redeem vouchers for their EBSS AFP payments, was extremely effective and welcomed by households consulted as part of the evaluation. This approach could be an effective mechanism for the delivery of any future schemes involving a similar voucher redemption mechanism.

Whilst only a third of NI households use gas or electricity for their home heating, the vast majority use electricity for other means such as lighting and appliances. A greater awareness of EPG, which was delivered automatically to those households covered by the scheme, may have limited concern over gas and electricity bills continuing to increase, and helped maintain consumption. With any future schemes, awareness raising efforts should be increased to reduce concern over affordability, particularly important where less visible discount schemes are implemented.

This publication is available from: www.gov.uk/government/publications/domestic-energy-affordability-support-schemes-in-northern-ireland-interim-evaluation.

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