

Expanding the Warm Home Discount Scheme 2025/26: Impact Assessment

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Title: Warm Home Discount (WHD) 2025/26 expansion IA No: DESNZ011(F)-25-EMS RPC Reference No: n/a Lead department or agency: Department for Energy Security and Net Zero (DESNZ) Other departments or agencies: n/a	Impact Assessment (IA)			
	Date: 25/04/2025			
	Stage: Final			
	Source of intervention: Domestic			
	Type of measure: Secondary legislation			
	Contact for enquiries: n/a			
Summary: Intervention and Options				RPC Opinion: n/a

Cost of Preferred (or more likely) Option (in 2025 prices)			
Total Net Present Social Value	Business Net Present Value	Net cost to business per year	Business Impact Target Status
-£410m (unweighted) £590m (weighted)	n/a	n/a	Not a regulatory provision

What is the problem under consideration? Why is government action or intervention necessary?

Fuel poverty is the problem faced by households living on a low income in a home which cannot be kept warm at reasonable cost. The Government has statutory duties to address and reduce fuel poverty. In England, the fuel poverty target is to ensure that as many fuel poor homes as is reasonably practicable achieve a minimum energy efficiency rating of Band C, by 2030. The Warm Home Discount (WHD) currently provides 3.4 million low income households with an annual £150 energy bill rebate.

Given the concerns about ongoing affordability challenges faced by many households, the Government has consulted on broadening the eligibility criteria to deliver support to more households that are likely to be among the poorest and most at risk of being in fuel poverty.

What are the policy objectives of the action or intervention and the intended effects?

Expanding the reach of the Warm Home Discount is intended to increase the redistribution of energy costs away from low income households by providing support to more households who cannot afford to heat their home sufficiently. This expansion is expected to provide support to around 6m households in Great Britain (an increase of around 2.7m on the current scheme's scope). It is also expected to result in a greater share of rebate recipients being in the lowest income deciles.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

- Option 0: No reform (status quo):** Continue with current Warm Home Discount scheme design and scope (~35% of recipients (1.1m) are estimated to be fuel poor).
- Option 1: Full reform (preferred option):** Expand to all qualifying households on means tested benefits by removing the high-cost-to-heat threshold for 2025-26 (~25% of recipients (1.6m) are estimated to be fuel poor).

Will the policy be reviewed? n/a. If applicable, set review date: n/a				
Is this measure likely to impact on international trade and investment?		No		
Are any of these organisations in scope?	Micro Yes	Small Yes	Medium Yes	Large Yes
What is the CO ₂ equivalent change in greenhouse gas emissions? (Million tonnes CO ₂ equivalent)		Traded: 0.07	Non-traded: 0.18	

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible SELECT SIGNATORY:  Date: 19 June 2025

Summary: Analysis & Evidence

Policy Option 1

Description: Expand scheme by removing the high-cost-to-heat threshold

FULL ECONOMIC ASSESSMENT

Price Base Year 2025	PV Base Year 2025	Time Period Years 1	Net Benefit (Present Value (PV)) (£m)		
			Low: Optional	High: Optional	Best Estimate: Non equity weighted: -£180m Equity weighted: £330m

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant	Total Cost (Present Value)
Low	Not quantified	Not quantified	Not quantified
High	Not quantified	Not quantified	Not quantified
Best Estimate			-£590m (non-weighted) -£850m (weighted)

Description and scale of key monetised costs by 'main affected groups'

- Suppliers recoup the total value of their expanded obligation, plus any administrative costs they incur, through retail gas and electricity prices. This is estimated to lead to additional costs to consumers of PV £590m, and after equity weighting, PV £850m. Of these additional costs, PV £3m relate to reduced energy consumption as a result of the levy (unweighted), or £10m when equity weighting is applied, and £5m relates to additional supplier administrative costs.
- The intervention aims to address the under-consumption of energy, which means the support will increase emissions and air quality impacts as a result. We estimate this increase in energy consumption will lead to additional resource costs of PV £100m and additional GHG emission and air quality costs of PV £70m.
- Additional administrative costs to Government of PV £5m.

Other key non-monetised costs by 'main affected groups'

None identified

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant	Total Benefit (Present Value)
Low	Not quantified	Not quantified	Not quantified
High	Not quantified	Not quantified	Not quantified
Best Estimate			£410m (non-weighted) £1,170m (weighted)

Description and scale of key monetised benefits by 'main affected groups'

- Benefits to households are equity weighted, to reflect the greater value of each unit of income for lower-income households.
- The main benefits of rebates delivered to eligible households are split between increases in income and increases in energy consumption. These are estimated to lead to additional benefits to consumers of PV £210m and PV £190m respectively, and after equity weighting, PV £620m and PV £550m respectively.

Other key non-monetised benefits by 'main affected groups'

The rebate is designed to reduce instances of underheating through increased energy consumption and more comfortable indoor temperatures. This will lower households' susceptibility to cold related diseases and is therefore likely to improve social outcomes. Additionally, it may reduce cost burdens to the health service. These health benefits have not been monetised.

Key assumptions/sensitivities/risks	Discount rate (%)
-------------------------------------	-------------------

3.5%

The main assumptions are the ways in which households are expected to respond to the scheme. Recipient households are expected to spend a portion of the rebate on increased energy consumption for heating. The rest of the rebate is treated as additional income. Meanwhile, households who pay for the scheme and do not receive a rebate are expected to reduce their demand for energy.

BUSINESS ASSESSMENT (Option 1)

Direct impact on business (Equivalent Annual) £m: n/a			Score for Business Impact Target (qualifying provisions only) £m: n/a
Costs: n/a	Benefits: n/a	Net: n/a	

1. Introduction and Policy Background

1. Since the beginning of the energy crisis in 2022, millions of households across the country have faced higher energy bills and are still struggling to heat their homes. At the sharp edge of this crisis have been the 2.7 million households in fuel poverty in England¹. These households are among the most vulnerable in our society, living below the poverty line (after energy costs) in poor quality housing which is expensive to heat.
2. The average fuel poverty gap – which measures how much more fuel poor households would have to spend to achieve adequate warmth – is now £407, almost 60% higher than in 2020 in real terms². The number of households required to spend more than 10% of their income after housing costs on their energy bills also rose to 9 million in 2024, more than double the rate in 2020³. In addition, Ofgem data shows that energy debt and arrears reached a record figure of £3.85 billion in December 2024, demonstrating the significant challenge many households are currently facing to pay their energy bills⁴.
3. The Warm Home Discount (WHD) is a key policy in the government's approach to tackling fuel poverty and reducing the energy costs of low-income households in Great Britain. In winter 2023/24, the scheme provided 3.35 million households with an annual £150 energy bill rebate⁵.
4. Given the concerns about ongoing affordability challenges faced by many households, the government has consulted on broadening the eligibility criteria of the WHD by removing the high-cost-to-heat threshold used in the current scheme. This change would mean that any household⁶ where the billpayer (or their partner or DWP appointee) receives a means-tested benefit would be eligible for WHD.

Fuel Poverty

5. The Government has statutory duties to address and reduce fuel poverty⁷. In England, the fuel poverty target is to ensure that as many fuel poor homes as is reasonably practicable achieve a minimum energy efficiency rating of Band C, by 2030⁸ (fuel poverty is devolved and there are separate targets for Scotland and Wales). The 2021 fuel poverty strategy, Sustainable Warmth, lays out the plan to meet this target. Government published a review of this on the 7th of February 2025 alongside a consultation on proposals for a new strategy⁹.

¹ [Annual fuel poverty statistics report: 2025 - GOV.UK](#)

² [Annual fuel poverty statistics report: 2025 - GOV.UK](#)

³ [Annual fuel poverty statistics report: 2025 - GOV.UK](#)

⁴ [Debt and arrears indicators | Ofgem](#)

⁵ [Warm Home Discount Annual Report: Scheme Year 13 | Ofgem](#)

⁶ Energy suppliers below 1,000 total customers are not required to deliver the WHD. In 2020, 99% of energy customers were with a supplier large enough to be obligated to deliver WHD; if anything, we would expect this number to have risen since 2020.

⁷ Fuel poverty is defined in the Warm Homes and Energy Conservation Act 2000 as: "a member of a household living on a lower income in a home which cannot be kept warm at reasonable cost."

⁸ Responsibility for tackling fuel poverty is devolved, although the Warm Home Discount applies across Great Britain, with some differences in how the scheme operates in England and Wales, compared with Scotland.

⁹ [Review of the Fuel Poverty Strategy: consultation document](#)

2. The Warm Home Discount

Purpose

6. The Warm Home Discount (WHD) scheme was introduced in April 2011 and was expanded in budget and scope in 2022. The WHD provides short term, direct relief by immediately reducing energy costs for eligible low-income households. These energy cost savings reduce the number of fuel poor households, as well as the fuel poverty gap for recipients that remain fuel poor. Alongside contributing to the Government's fuel poverty objectives¹⁰, the scheme helps to address broader distributional concerns across low-income households arising from energy price rises and the impact of energy and climate change policies funded through bills.
7. While the intention is to target fuel poor households, it is not possible to directly identify fuel poor households through currently available data. In practice, the scheme currently targets households based on their receipt of means-tested benefits and in some cases an estimated cost-to-heat, with the rebate being delivered to households with the highest estimated cost-to-heat as these households are more likely to be in fuel poverty.
8. Eligibility for the current WHD scheme is summarised below in Table 1. Core group 1, comprising recipients of the Guarantee Credit element of Pension Credit, is consistent across all of Great Britain, whereas the additional eligible groups vary by nation.

Table 1: WHD eligibility criteria

	Low income	High-cost-to-heat threshold
Core Group 1 (known as Core Group in Scotland)	Household has a resident receiving the Guarantee Credit element of Pension credit	Does not affect eligibility
Core Group 2 (England and Wales only)	Household has a resident receiving certain means-tested benefits or tax credits ¹¹	Households with predicted high energy costs eligible to receive rebate
Broader Group (Scotland only)	Customers identified by their supplier as being at risk of fuel poverty. Customers must apply directly to their energy suppliers	

*For both groups, either the benefit recipient, their partner or their legal representative must be named on the electricity bill on the qualifying date for that year

England and Wales

9. One aim of the 2022 reforms to WHD was to improve fuel poverty targeting in England and Wales within a limited budget. A key element of these reforms was the creation of a new Core Group 2, comprising households with low incomes (approximated by being in receipt of certain means tested benefits) and high expected energy costs.
10. The assessment of how expensive a home is to heat is currently undertaken primarily by using Valuation Office Agency (VOA) data. Statistical techniques are used to predict a home's energy costs based on the type, age and floor area of the property. This predicted energy cost is compared to an eligibility threshold to determine which properties are classed as having a 'high cost to heat'. Broadly speaking, older, larger, and more detached properties have higher heating costs. VOA data is used in preference to Energy Performance Certificates (EPCs) because not all homes have a valid EPC. More detail is set out in Annex 2.

¹⁰ As set out in the fuel poverty strategy made under the Warm Homes and Energy Conservation Act 2000, fuel poverty is measured using the Low Income Low Energy Efficiency (LILEE) metric. LILEE defines a household as fuel poor if they have a residual income (after housing and energy costs) under the poverty line and live in a home with an energy efficiency rating below Band C.

¹¹ The qualifying benefits are Housing Benefit, Income-related Employment and Support Allowance (ESA), Income-based Jobseeker's Allowance (JSA), Income Support, the 'Savings Credit' element of Pension Credit and Universal Credit.

11. The high-cost-to-heat threshold can be amended to make more, or fewer, households eligible, and this provides some budgetary control over the scheme. Changing the level of the high-cost-to-heat threshold would mean that some households' eligibility would change, despite a their circumstances not having changed.
12. Under the current scheme, rebates for Core Group 1 are applied automatically. This is also the case for households in Core Group 2 where the required data is available. Last winter (2023/24), around 2.9m households (92%) received their rebates automatically, without having to take any action. The remaining 250k (8%) received their rebates after contacting the WHD helpline to confirm their eligibility.¹²

Scotland

13. Due to differences in data availability, the 2022 reforms did not introduce a Core Group 2 in Scotland (see Table 1). Instead, a Broader Group that previously applied in England and Wales was retained. Participating energy suppliers are set a target for the minimum number of Broader Group customers that they must provide with rebates. The suppliers are then responsible for administering this.
14. Although the Government sets minimum eligibility criteria in regulations, energy suppliers may set additional criteria, subject to approval by the scheme administrator, Ofgem. Funding for rebates under the Broader Group is finite, therefore each supplier decides how they award rebates to eligible households.
15. The proposed expansion of the WHD would mean increasing the level of spend available for suppliers to allocate through the broader group by a proportionate amount to the increase in England and Wales.

Industry Initiatives

16. Across Great Britain, energy suppliers can provide additional support through Industry Initiatives, which are energy-related and financial measures that suppliers can deliver to their own customers or working with industry partners. These measures include energy efficiency measures, energy advice, boiler and central heating replacements, financial assistance payments, debt write-off, and benefit entitlement checks.

¹² Department for Energy Security and Net Zero, *Warm Home Discount statistics, 2023 to 2024*, August 2024. Available at: <https://www.gov.uk/government/statistics/warm-home-discount-statistics-2023-to-2024/warm-home-discount-statistics-2023-to-2024>

3. Rationale for Intervention

17. The government is intervening to expand the Warm Home Discount (WHD) scheme to all households on means-tested benefits (MTBs) for the following winter (2025/26).

18. The rationale for Government intervention is for reasons of:

- **Equity:** High energy prices disproportionately affect low-income households because heating is a necessity (the demand for energy is income inelastic). Therefore, energy costs, on average, make up a relatively larger proportion of low-income households' expenditure than higher income households. This issue is exacerbated by properties with low energy efficiency, resulting in some households on a low income living in less energy efficient properties (energy efficiency bands D-G) having to spend more on energy to heat their home.
- **Externalities:** Living in a cold home incurs several private (individual) costs such as health problems, reduced comfort and financial hardship. Reducing the cost of energy bills allows households to heat their home for longer and/or to a higher temperature. This directly reduces these private costs but may also reduce social costs such as through improvements to public health¹³

19. It would also support the achievement of key government objectives:

- **Tackling fuel poverty:** The government has statutory fuel poverty targets in place which seek to reduce the number of low income households living in expensive to heat properties. See Annex 1 (Fuel Poverty Measurement) for more information on how definitions of fuel poverty vary by nation.
- **Improve energy affordability:** Transitioning to a more affordable, secure and clean energy system, that can deliver lower energy bills for consumers, is a key priority for the government. We are separately consulting¹⁴ on the next Fuel Poverty strategy for England. This consultation seeks views on whether the fuel poverty strategy should be broadened to include an additional indicator to monitor the impact of energy prices on energy affordability.

¹³ It is difficult to quantify these wider social benefits, and they are not monetised in this IA. In 2023, BRE estimated that excessively cold homes in England could be costing the NHS £540m a year in preventable

¹⁴ Review of the Fuel Poverty Strategy: consultation document

4. Options Considered

Policy options

20. The government has consulted on expanding the scope of the WHD in 2025/26, to remove the high-cost-to-heat threshold¹⁵. This Impact Assessment focuses on the costs and benefits of this proposal, against a “status quo” option of continuing with the scheme on its current basis.
21. Options quantified in this Impact Assessment are:
- **Option 0: No reform (status quo):** WHD operates in 2025/26 on the same basis as in previous years.
 - **Option 1: Full reform (preferred option):** Expand eligibility to all¹⁶ households in receipt of means tested benefits by removing the high-cost-to-heat threshold.

Option 0: Continue WHD scheme on the same basis as past years (business as usual counterfactual)

22. The scheme would continue for winter 2025/26 within the expected spending level and with the same eligibility criteria as for 2024/25. We assume that the 2025/26 scheme would deliver at a similar level to the most recent years of the scheme; in 2023/24, this figure was around 3.4m rebates.

Option 1: Expand WHD scheme by removing the high-cost-to-heat threshold

23. The preferred option involves expanding the coverage of the WHD so that all households in receipt of means-tested benefits would be eligible to receive a £150 rebate off their energy bill.
24. In England and Wales, this would be achieved by removing the high-cost-to-heat threshold. In Scotland, due to the differences in the design of the scheme, it is not possible to set out exactly who should receive a rebate. The changes would therefore mean increasing the level of spend available for suppliers to allocate through the Broader Group by a proportionate amount to that in England and Wales¹⁷.
25. The application of these new eligibility criteria would result in rebates being provided to around 6.1 million households in Great Britain¹⁸, an increase of around 2.7 million on the counterfactual.
26. The WHD is funded through a levy on domestic gas and electricity bills, currently estimated to represent around £22 cost to the average dual-fuel household. Removing the high-cost-to-heat threshold would lead to an increase the annual WHD policy costs. Based on the assumptions in this Impact Assessment, the annual energy bill for a typical dual-fuel household would be around £15 higher than it otherwise would have been. See Section 6 on Impact Analysis for further information. (Note that this IA does not reflect changes to other policy and operating costs that have separately been proposed for implementation alongside this policy, and so does not necessarily represent the wider impact on energy bills at the time of the change).

¹⁵ Expanding the Warm Home Discount Scheme, 2025 to 2026 - GOV.UK

¹⁶ Note that it will remain a requirement that the benefit recipient, or their partner / spouse / DWP appointee is named on the electricity bill in order to receive the rebate, meaning some households in receipt of a means tested benefit will remain ineligible.

¹⁷ The apportionment methodology was consulted upon in summer 2021. As set out in the April 2022 response to that consultation, the apportionment to Scotland is 9.4% of the overall GB scheme. This is based on the number of domestic gas and electricity meters averaged over a three-year period from 2017-2019.

¹⁸ Estimates of benefit recipients here are based on derived benefits flags in the English Housing Survey

5. Analytical Approach

27. The impacts of the different WHD policy options have been estimated using the 2022/23 English Housing Survey (EHS) and accompanying Fuel Poverty dataset (2023). The latest fuel poverty statistics (for 2024) were published¹⁹ on the 27th of March 2025.

Geography/ devolution considerations

28. As this scheme is designed for Great Britain (GB), the results shown in this Impact Assessment have been scaled up to estimate results for GB based on results for England. However, as modelling is based on an England-only survey (with no consistent dataset available to represent Scotland and Wales), the demographic, fuel poverty and rebate distribution may differ from the actual characteristics for Scotland and Wales.
29. The fuel poverty definition used to determine the expansion's contribution to fuel poverty targets for this Impact Assessment is LILEE (Low-Income Low-Energy-Efficiency), which is the definition used in England. This is adopted because the modelling is based on an England-only survey. See Annex 1 (Fuel Poverty Measurement) for more information on definitions of fuel poverty by nation.

Key analytical assumptions

Table 2: Analytical assumptions

Assumption	Explanation
Counterfactual	The costs and benefits of the current scheme have been calculated as a counterfactual, in order to estimate the additionality of the proposed expanded scheme.
Appraisal period	2025
Estimated number of recipients under the current WHD scheme	Estimate for 2025/26 is based on the actual number of rebates issued in 2023/24, since we assume the scheme is in a steady state.
Estimated number of households theoretically eligible under an expanded scheme	Has been estimated using the English Housing Survey; this represents a mix of self-reported benefit flags and additional households flags as likely to receive specific benefits, to attempt to adjust for the known under-reporting of benefits in the survey. This has been scaled up (in proportion to the populations of Wales and Scotland) to produce GB-level estimates
Conversion rate from theoretically eligible to actually receiving the rebate	Of those who claim a means-tested benefit, we estimate that around 30% will not go on to receive the Warm Home Discount due to technical challenges with operationalising data matching, e.g. benefit recipient or their partner not being the named person responsible for paying the energy bill, or not having their energy account successfully matched with their benefits data. This estimate is based on delivery experience of the current scheme. Households identified as receiving a benefit but who could not be matched to an energy account will be sent a letter directing them to a helpline to see if they are eligible, but not all eligible households will call this helpline.
Households paying the levy	All households are assumed to pay for the levy cost of the WHD (including eligible households). For appraisal purposes, we assume the total number of electricity accounts represents the total number of households in the UK. In practice, this will be charged partly on gas bills and partly on electricity bills. When estimating the impact on a typical dual-fuel household, we have divided total levy costs by the total number of both gas and electric accounts, and multiplied by two.
Energy prices & carbon values	Based on retail price and Long Run Variable Cost (LRVC) series, and the carbon values series, all from HM Treasury Green Book guidance on valuing energy impacts

30. Equity weighting is used in the core cost-benefit analysis calculations, to reflect the higher marginal benefit of additional income to groups with lower incomes.

Estimated cohort size

31. We expect that not all people eligible for means tested benefits (MTBs) will go on to receive a WHD rebate. To be eligible for the rebate, the benefit recipient or their

¹⁹ <https://www.gov.uk/government/collections/fuel-poverty-statistics#2024-statistics>

partner/spouse/DWP-appointee must be named on their energy bill; this will not be the case for all benefit recipients.

32. When data is matched between DWP's benefits data and energy suppliers' energy bill data, some households will fail to match; in these cases, households with a benefit recipient but no matched energy supplier will receive a letter from Government encouraging them to call a helpline which will try to resolve the issue.
33. Out of the 8.5m households estimated to receive a qualifying means-tested benefit²⁰, it is estimated that around 6.1m will go on to receive the rebate. This estimate is based on delivery experience of the current scheme. There is uncertainty about whether the current scheme's conversion rate from theoretical eligibility to actual receipt of WHD will continue to apply under an expanded scheme (see Section 10 on Sensitivity Analysis).
34. One possible impact of this uncertainty is that the size of the WHD levy charged to billpayers may not align exactly with the total cost of the rebates the scheme goes on to deliver. If scheme costs are over-estimated, consumers could be left worse off with suppliers receiving a windfall. If scheme-costs are under-estimated, energy suppliers could face a shortfall. In either case, some corrective action is possible, for example through the process of Ofgem setting the energy price cap, but this remedy would not be immediate. For the purposes of this analysis, we assume that the full cost of the WHD will be met by billpayers without significant delay.

²⁰Figure estimated based on the share of households in the EHS which are estimated to receive a means-tested benefit, scaled up to GB

6. Impact Analysis

Table 3: Projected costs and targeting rates by total number of Warm Home Discount rebates (2025/26)

Option	Number of rebates in Great Britain (millions)	Cost to average dual-fuel billpayer	Total levy cost (GB)	Fuel poverty*		Low-income household with required energy costs greater than 10% of income (after housing costs)	
		Including Industry Initiatives for 25/26		Hit-rate ²¹	Coverage ²²	Hit-rate ²³	Coverage ²⁴
Current scheme	3.4	£22	£600m	~35%	~30%	~55%	~25%
Remove high-cost-to-heat threshold	6.1	£37	£1bn	~25%	~45%	~55%	~45%

*note that this table uses the English definition of fuel poverty (Low-Income Low-Energy-Efficiency) but that other definitions are used in Wales and Scotland. The “low-income households with energy costs greater than 10% of income (after housing costs)” columns do not precisely align with the fuel poverty definitions in Scotland and Wales, but will be more aligned with them than the English fuel poverty definition is.

Impacts on affordability for low-income households

35. Around half of households currently receiving the WHD are low income and have energy costs exceeding 10% of their after-housing-cost income. This proportion is not significantly different under the proposed expansion option – around 55%.
36. Expanding the scheme would increase the coverage of these “low-income with unaffordable energy” households. Currently, around one in four such currently receive the WHD, which would rise to around 45% under the proposed expansion.

Income distributions of recipients

37. Figure 1 shows the estimated distribution of WHD recipients²⁵ under the current and expanded scheme, where the high-cost-to-heat threshold is removed. It shows that the expansion will increase the number of households receiving the rebate in almost all deciles, but with the largest increases being in the lowest deciles (i.e. among the poorest households). However, it also illustrates that a significant share of households in the lowest deciles will remain non-recipients and so will receive no support and still pay the levy cost.

Figure 1: Income decile distributions of recipients and non-recipients

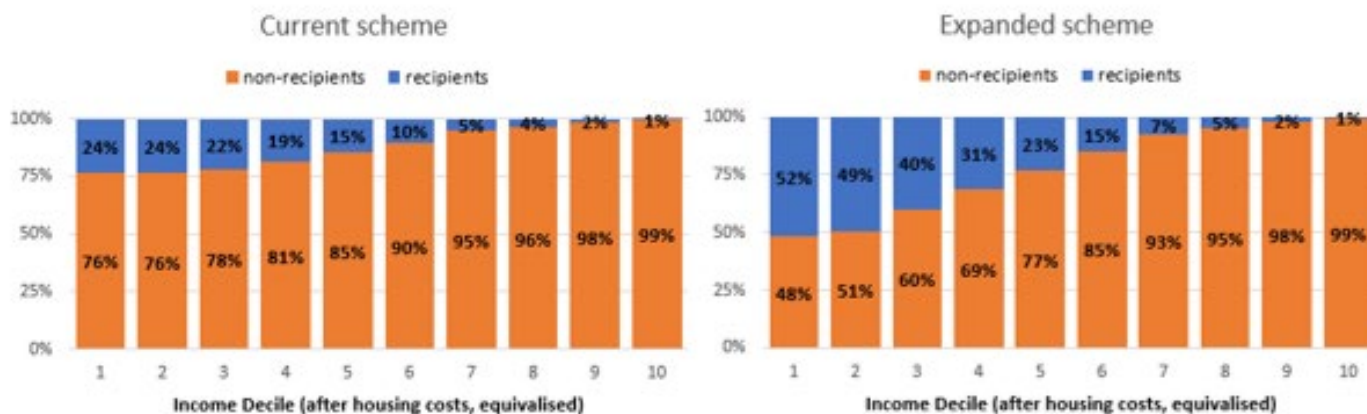
²¹ The fuel poverty hit-rate is defined as the proportion of recipients who are fuel poor.

²² The coverage refers to the estimated proportion of all fuel poor homes that would receive the discount.

²³ The affordability hit-rate is defined as the proportion of recipients who spend more than 10% of their after-housing-costs income on energy and are classed as low-income

²⁴ The coverage refers to the estimated proportion of all low income households with energy costs greater than 10% of after housing cost income that would receive the discount.

²⁵ Income decile distributions estimated based on the English Housing Survey, 2023 Fuel Poverty dataset



Impacts on fuel poverty

38. Under the expansion, it is estimated that 1.6 million fuel poor households across Great Britain will receive the rebate, representing an increase of around 500k compared to the current scheme. This is expected to increase the overall coverage of fuel poor households from around 30% of total households in fuel poverty to around 45%²⁶. This estimate is based on the definition of fuel poverty in England²⁷. Higher coverage is not achieved because:

- Not all households in fuel poverty claim a means tested benefit (e.g. in England, around a million households in fuel poverty do not claim a means-tested benefit²⁸).
- Of those who claim a means-tested benefit, we estimate that around 30% will not go on to receive the Warm Home Discount due to factors like the benefit recipient or their partner not being the named person responsible for paying the energy bill, or not having their energy account successfully matched with their benefits data²⁹. This is based on delivery experience of the current scheme – see section 10 (Sensitivity Analysis of Key Assumptions) for more information.

39. The percentage of recipients that are fuel poor by the Low Income Low Energy Efficiency (LILEE) definition³⁰ would reduce as the number of rebates is increased, since the high-cost-to-heat threshold serves to focus the rebates towards groups more likely to be fuel poor by this metric. As the scheme is extended to a larger but less-targeted group, the percentage of recipients that are fuel poor (by this metric) is expected to drop from around 35% to around 25%.

40. However, while a significant share of the additional recipients would not be fuel poor by the LILEE legal definition, many of these are low-income households whose required energy costs are more than 10% of their after-housing-cost income.

41. The government is separately consulting on the next fuel poverty strategy for England. This consultation seeks views on whether the fuel poverty strategy should be broadened to include an additional indicator to monitor the impact of energy prices on energy affordability.

²⁶ The coverage refers to the estimated proportion of all fuel poor homes that would receive the discount.

²⁷ Fuel poverty in England is measured using the Low Income Low Energy Efficiency (LILEE) metric. LILEE defines a household as fuel poor if they have a residual income under the poverty line and live in a home with an energy efficiency rating below Band C.

²⁸ <https://www.gov.uk/government/collections/fuel-poverty-statistics#2024-statistics>

²⁹ Households identified as receiving a benefit but who could not be matched to an energy account will be sent a letter directing them to a helpline to see if they are eligible, but not all eligible households will call this helpline.

³⁰ Fuel poverty in England is measured using the Low Income Low Energy Efficiency (LILEE) metric. LILEE defines a household as fuel poor if they have a residual income under the poverty line and live in a home with an energy efficiency rating below Band C.

Scheme costs

42. By extending the same value of rebate to a larger pool of recipients, the levy cost of the scheme would be increased. We estimate that increasing the size of the cohort from around 3.4 million recipients to around 6.1 million recipients, while holding the rebate at £150, could cost the average dual fuel billpayer an additional £15 on their annual energy bill. This would mean the average dual-fuel household paying around £37 to cover scheme costs, up from around £22 under the current scheme. The additional 2.7 million rebates would increase the total value of the scheme in Great Britain by around £400m, from around £600m currently³¹ to approximately £1bn.
43. Because all households pay the levy cost regardless of whether they receive the rebate or not, this would reduce the net benefit to households already in receipt of the discount (i.e. the net benefit would be £113 for recipients, down from £128 under the current scheme). This IA does not reflect changes to other policy and operating costs that have separately been proposed for implementation alongside this policy, and so does not necessarily represent the wider impact on energy bills at the time of the change.
44. Across England, Wales and Scotland, energy suppliers can provide additional support through Industry Initiatives, which are energy-related and financial measures that suppliers can deliver to their own customers or working with industry partners. These measures include energy efficiency measures, energy advice, boiler and central heating replacements, financial assistance payments, debt write-off, and benefit entitlement checks. These are estimated to represent £2-3 of the total levy charged to billpayers to fund the WHD.

³¹ Based on the assumed 3.4m recipients, plus the cost of Industry Initiatives

7. Social Cost-Benefit Analysis

45. The objective of WHD is the redistribution of income to low-income households by providing support to those who cannot afford to heat their home sufficiently. Therefore, equity weighting is appropriate as it quantifies higher marginal benefits of additional income to lower income groups in contrast to lower marginal reductions in utility to high income groups. Consequently, the costs and benefits in this section present both normal and equity weighted net present social values (NPSV) of the scheme.
46. The equity-weighted values reflect income transfers across different income deciles arising from:
- The equity weighted value of reduced bills affecting households in receipt of a WHD rebate (it is assumed 47%³² of the rebate contributes to the household energy bill).
 - The equity weighted value of increased income achieved from an energy bill rebate (it is assumed the remaining 53% of the rebate is used to subsidise income expenditure).
 - The equity weighted value of increased bills affecting all household customers of obligated suppliers.
47. The distributional weightings used to calculate equity weighted NPSV for each option are calculated using data from the English Housing Survey, following guidance set out in the HM Treasury Green Book³³. These are explained further and listed in Annex 3.
48. Carbon emissions and air quality costs arising from changes in energy consumption are included as costs and benefits. The levy cost of WHD is added to households' energy bills which reduces household energy demand slightly, leading to lower energy consumption and subsequent emissions. Conversely, households in receipt of WHD are expected to increase their energy consumption leading to higher emissions.
49. Each NPSV represents a central estimate which is dependent on the income groups who receive the WHD rebate. A sensitivity analysis of the key assumptions has been undertaken in Section 10.

Monetised costs and benefits

Value and use of the WHD rebate

50. We assume that nearly half (47%) of the rebates delivered to households will be spent on increased energy consumption, with the remainder being treated as increased income. This is based on research by the IFS³⁴, for more detail see Section 10.

Cost of the WHD levy and associated energy demand reduction

51. All billpayers pay the levy cost of the WHD, even those in receipt of the rebate. We assume that this increase in energy costs will lead to a small reduction in energy consumption, partially offsetting the cost to consumers, with the remainder being experienced as a financial cost. See Section 10 for more detail on the assumptions underpinning this.

Resource costs

52. The costs to society of supplying a given quantity are calculated by applying the long run variable costs of energy, based on estimates provided in the HM Treasury Green Book. This applies equally to the extra energy expected to be consumed by rebate recipients

³² Beatty, Blow, Crossley & O'Dea (2014). Cash by any other name? Evidence on Labelling from the UK Winter Fuel Payment, available at: <https://www.sciencedirect.com/science/article/abs/pii/S0047272714001479>

³³ The Green Book: appraisal and evaluation in central government - GOV.UK

³⁴ Beatty, Blow, Crossley & O'Dea (2014). Cash by any other name? Evidence on Labelling from the UK Winter Fuel Payment, available at: <https://www.sciencedirect.com/science/article/abs/pii/S0047272714001479>

(representing a cost to society) and to the reduction in energy consumption expected for other billpayers (for which the reduced resource cost is a benefit to society).

Carbon and air quality costs

53. Similarly, carbon and air quality impacts are valued by applying the relevant factors from the HM Treasury Green Book to the increased consumption by rebate recipients and decreased consumption by non-recipients.

Administration costs to industry

54. We estimate industry administration costs to be approximately £10m in 2025/26 for the current scheme and approximately £20m for the expanded scheme.

55. Although these estimates are based on information provided by suppliers on previous scheme years and have been adjusted for differences in recipient numbers and inflation, it is important to note these are an approximate estimate.

56. These costs are reflected in the NPSV as part of the costs to billpayers.

Administration costs to Government

57. Government bears some of the administrative costs of delivering the WHD rebates which includes the helpline, DESNZ and DWP staff costs and mailing costs.

58. These costs are estimated to be around £10m for the current scheme option and approximately £15m for the expanded scheme.

59. Estimates have been based on existing administration costs for the current scheme from previous years and have been scaled proportionately with the number of recipients.

Non-monetised costs and benefits

Health Impacts

60. A previous WHD evaluation³⁵ found a small increase in the temperature of properties in receipt of the rebate and concluded it is likely to have led to health improvements amongst WHD recipients.

61. However, it is difficult to monetise the health benefits attributable to the WHD of any temperature increases and therefore these have not been monetised. Therefore, this is likely to underestimate the NPSV of the scheme.

Net present social values (NPSV)

62. Table 5 shows that the NPSV for both the option and the counterfactual is negative without equity weighting (-£230m for the current scheme and -£410m for the expanded scheme). This is expected, as the main benefits of the scheme represent a transfer of costs between billpayers, while there are negative externalities associated with the higher energy consumption that is expected to arise from an expanded scheme. The expanded scheme has a lower (non-weighted) NPSV than the counterfactual, since it describes a similar scheme but with a larger number of recipients.

63. When equity weighted, the NPSV for both the option and the counterfactual is positive (£260m for current scheme and £590m for expanded scheme) as a greater emphasis is now placed on the benefits accrued to relatively poorer households. The equity-weighted NPSV for the expanded scheme is just over double that of the counterfactual; this reflects that there would be a larger total number of recipients, and that these recipients skew slightly more towards the lowest income deciles than the current scheme's recipients do (as shown in Figure 1).

³⁵ <https://www.gov.uk/government/publications/warm-home-discount-evaluation-2010-to-2015>

64. The quantified NPSV includes administrative costs for government explicitly, while administrative costs to industry are reflected as part of the assumed costs to billpayers.

Table 4: Equity weighted monetised and non-monetised costs and benefits of each option (including administrative burden)

	Description	Option 0 (counterfactual): Current Scheme	Option 1: Expanded Scheme	Net impact
Benefits	Increase in income	720	1,340	620
	Increase in energy consumption by recipients	640	1,190	550
	Impact of Industry Initiatives	80	80	0
	Reduction in resource costs due to bill increase	2	4	2
	Improvement in air quality and reduction in emissions due to bill increase	2	4	1
	Total benefits	1,440	2,620	1,170
Costs	Decrease in income	-950	-1,620	-670
	Decrease in energy consumption by billpayers	-10	-20	-10
	Increase in resource costs	-120	-220	-100
	Increase in carbon and air quality costs	-90	-160	-70
	Government admin costs	-10	-15	-5
	Total costs	-1,180	-2,030	-850
NPSV	Total NPSV (£m)	260	590	320
Figures may not add up due to rounding (most figures are shown rounded to the nearest £10m) All figures are nominal and in 2025 prices Administrative costs to industry are included within the equity weighted value of bill increase				

Table 5: Monetised and non-monetised costs and benefits of each option (including administrative burden) without equity weighting

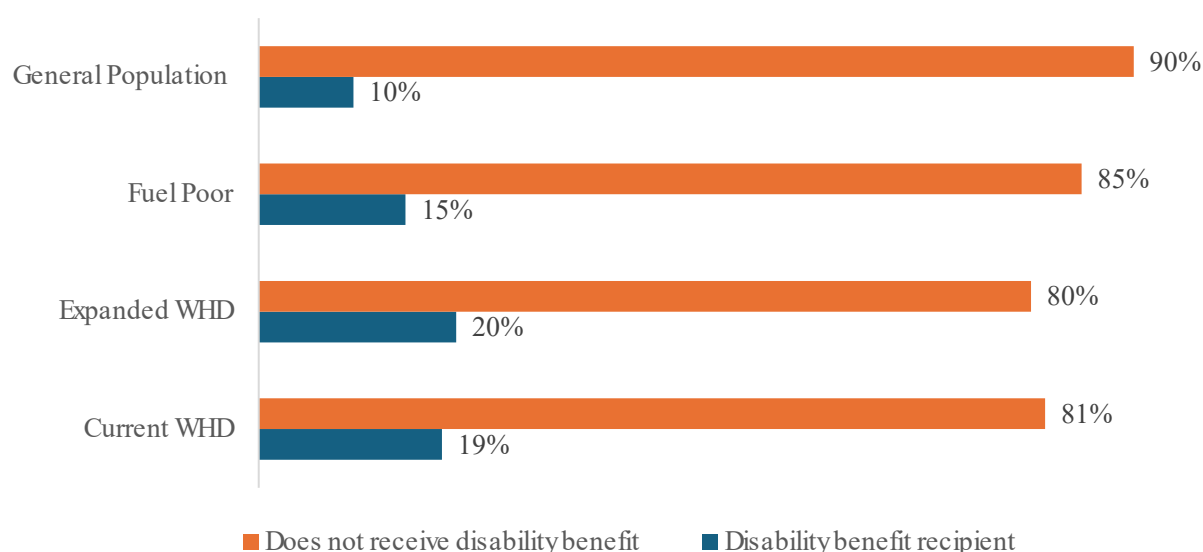
	Description	Option 0 (counterfactual): Current Scheme	Option 1: Expanded Scheme	Net impact
Benefits	Increase in income	270	480	210
	Increase in energy consumption by recipients	240	430	190
	Impact of Industry Initiatives	80	80	0
	Reduction in resource costs due to bill increase	2	4	2
	Improvement in air quality and reduction in emissions due to bill increase	2	4	1
	Total benefits	600	1,010	410
Costs	Decrease in income	-600	-1,010	-410
	Decrease in energy consumption by billpayers	-5	-8	-3
	Increase in resource costs	-120	-220	-100
	Increase in carbon and air quality costs	-90	-160	-70
	Government admin costs	-10	-15	-5
	Total costs	-830	-1,410	-590
NPSV	Total NPSV (£m)	-230	-410	-180
Figures may not add up due to rounding (most figures are shown rounded to the nearest £10m) All figures are nominal and in 2025 prices Administrative costs to industry are included within the equity weighted value of bill increase				

8. Equalities Assessment

65. The Public Sector Equality Duty (the ‘Duty’) is a statutory requirement imposed by section 149 of the Equality Act 2010. In broad terms, the Duty requires public bodies to have due regard to the need to eliminate discrimination, advance equality of opportunity and foster good relations between different people when carrying out their activities. Advancing equality of opportunity includes having due regard to the need to remove or minimise disadvantages, take steps to meet the needs of persons sharing a protected characteristic and encouraging their participation in activities where their participation is disproportionately low.
66. The following relevant protected characteristics are set out under the Duty: age; disability; gender reassignment; marriage or civil partnership; pregnancy and maternity; race; religion or belief; sex; sexual orientation. Equality analysis of rebate distribution by protected characteristic is presented but limited to those characteristics captured by the English Housing Survey 2022-23 and Fuel Poverty Dataset 2023 (disability, long-term illness, age, and ethnicity).
67. The following analysis is based on English Housing Survey (EHS) 2022/23 data and is therefore representative of England only. We would expect similar trends to hold in Wales and Scotland.
68. The tables and charts below show the distribution of modelled WHD rebates in the EHS for the current scheme and proposed expansion to everyone receiving the qualifying means tested benefits. These figures are compared with the respective proportions in the fuel poor population (as this is the intended target group for the policy) as well as the overall population.
69. This analysis relies on self-reported information, which can introduce biases; most notably, the percentage of households reporting receipt of a disability benefit in the EHS is around 10%, below the level indicated by data published by DWP³⁶. Our analysis is therefore only able to comment on the proportion of EHS households self-reporting as having a disability benefit within any given cohort (e.g. current WHD recipients, recipients under an expanded scheme).

Disability and Long-Term Illness

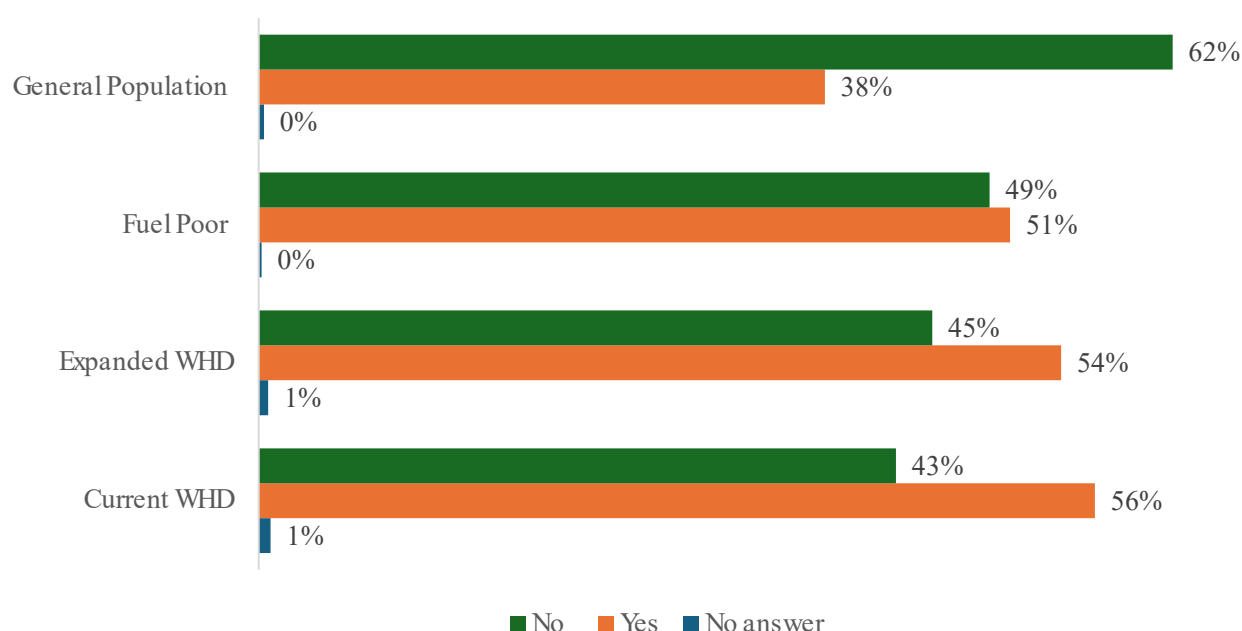
Figure 2: Proportion of EHS Households Reporting Receipt of a Disability Benefit



³⁶ This can be estimated using the “benefit combinations” tables on DWP’s Stat-Xplore tool (<https://stat-xplore.dwp.gov.uk/>)

70. Figure 3 shows that modelled recipients of both the current and expanded scheme include a higher proportion of disability-benefit-recipients than the general population, in both cases around 20%. This suggests that households with a disability benefit recipient are relatively more likely to benefit from WHD in both scenarios than the average household.
71. Analysis of DWP's benefit statistics on Stat-Xplore³⁷ indicates that over 40% of DLA / AA / PIP³⁸ recipients received a qualifying means-tested benefit in August 2024 and could therefore benefit from the expanded WHD scheme.
72. We therefore expect the scheme's expansion to be an extension of the benefit the current scheme provides to the population with a disability, which is in line with the intention of the expansion.

Figure 3: Proportion of EHS households declaring long term illness



73. A similar pattern is seen when looking at people self-reporting as having a long-term illness. Figure 4 shows that these households make up over half of modelled WHD recipients (under both options), compared to 38% of the general EHS population. We therefore expect the scheme's expansion to be an extension of the advantage the current scheme provides to the population with long-term illness, which is in line with the intention of the expansion.
74. The Government recognises that some people may require more heating because of their disability or health condition and therefore may face additional costs. However, disability benefits are not proposed as an eligibility criteria for the expanded scheme as these are not income assessed, so receiving these benefits provides weaker evidence that a household may need support with energy bills than receipt of a means-tested benefit. The official Fuel Poverty statistics show that 13% of DLA / AA / PIP receiving households who do not receive a means-tested benefit are fuel poor, compared to 23% of all households receiving a means-tested benefit³⁹. This suggests that the excluded group of DLA / AA / PIP-receiving households are less likely to need support with their energy bills than the cohort targeted by the proposed expansion.

³⁷ <https://stat-xplore.dwp.gov.uk/>

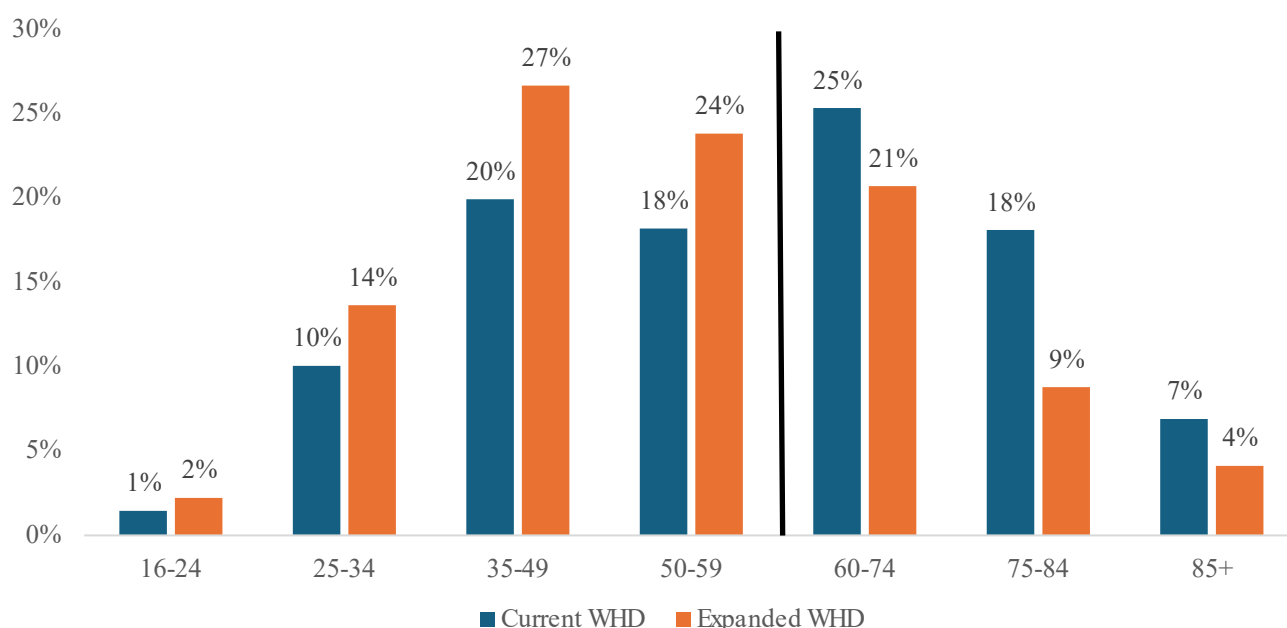
³⁸ Disability Living Allowance / Attendance Allowance / Personal Independence Payment

³⁹ Based on Tables 34a and 34b of the 2024 fuel poverty detailed tables - see [Fuel poverty statistics - GOV.UK](#)

75. Government has therefore decided to keep the Core Group 2 eligibility criteria limited to receipt of a specified means-tested benefit to ensure that the rebates can be focused to those likely to be on the lowest incomes and therefore most likely to be at risk of fuel poverty (note that the legal definition of fuel poverty is based on Low Income and Low Energy Efficiency, rather than high energy costs in usage or price terms).
76. Recipients of disability benefits are supported by some Industry Initiatives, including the financial assistance element. Industry Initiatives are proposed by suppliers and provide support for things such as energy efficiency advice, benefits and debt advice, limited debt write-off and financial assistance payments. Energy suppliers are obliged to report to Ofgem, as part of their annual reporting, the estimated value and proportion of their Industry Initiatives spending that supports fuel poor households where someone has a disability or significant health problems. In 2023/24, a total of £27.5 million (42.0%) of the amount spent on Industry Initiatives went to households with at least one person with significant health problems or a disability.⁴⁰
77. We will continue to work with energy suppliers and third-party organisations to ensure there is dedicated support for households with a disability at risk of fuel poverty as part of the Industry Initiatives.

Age

Figure 4: Age distribution of WHD recipients



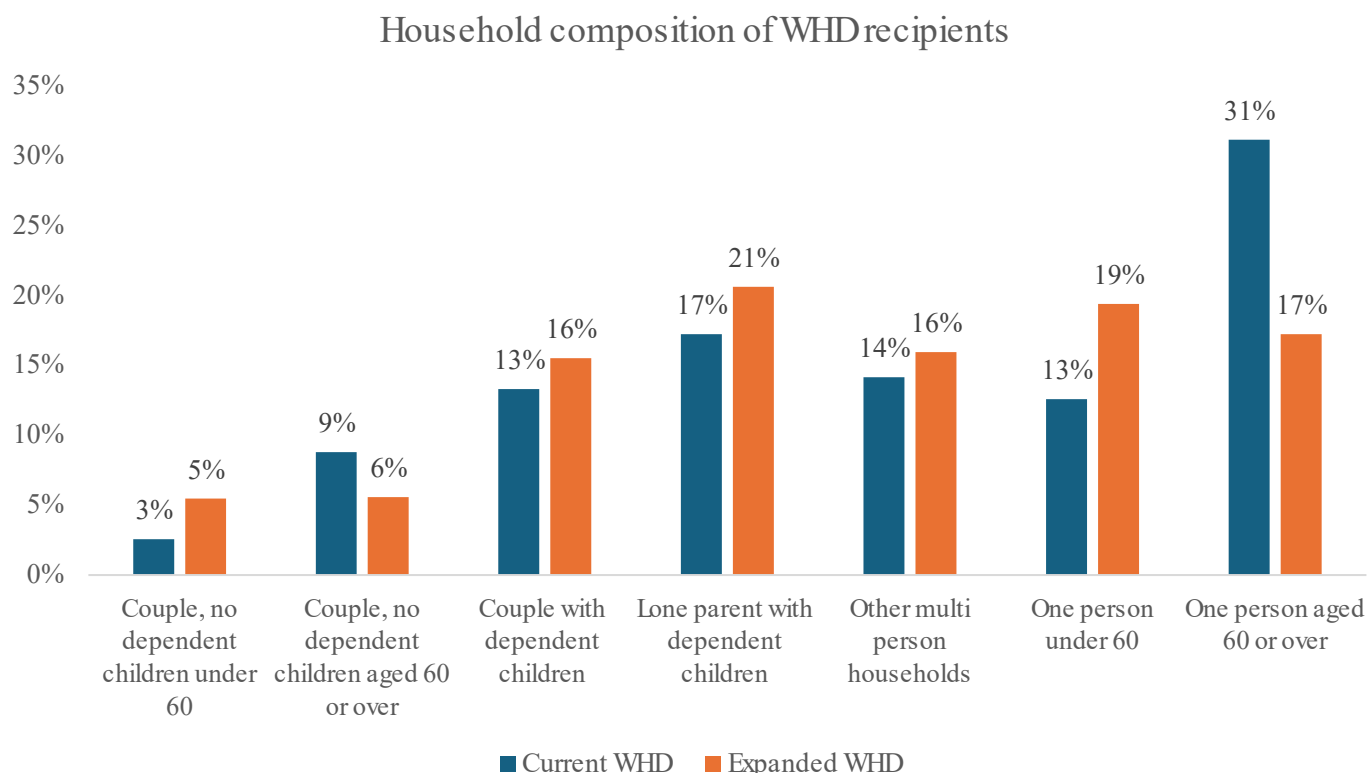
78. Expanding Core Group 2 will largely benefit working age households, with households with all occupants under 60 seeing an increase in eligibility. This is expected, since the current design of the scheme means that recipients of the guaranteed element of pension credit will automatically receive WHD, whereas recipients of other MTBs will only be eligible if their house meets the “high-cost-to-heat threshold”. The expansion of Core Group 2 would establish parity of treatment between guaranteed pension credit and the other MTBs and therefore parity between different age groups in terms of receipt of the WHD.
79. Households of working age adults (in which all members are over 16 and under 60) will see the largest proportional increase in eligibility under the expansion. These households

⁴⁰ <https://www.ofgem.gov.uk/publications/warm-home-discount-annual-report-scheme-year-13>

represent an estimated 38% of the newly eligible cohort, whereas they are only 22% of the current recipient cohort. Analysis of the English Housing Survey shows that this is broadly consistent with their relative representations in the fuel poor population.

80. Since the Core Group 1 (and Core Group Scotland) eligibility will remain unchanged, the scheme will continue to provide a benefit to many older people, but the distribution of rebates across ages will now be more representative of the general population. This group are also marginally less likely to be fuel poor compared to the general population.

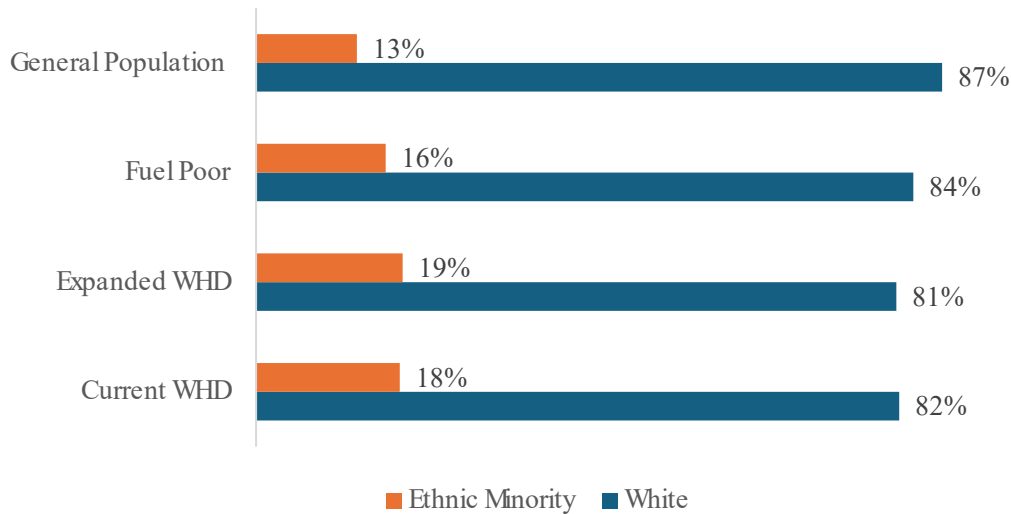
Figure 5: Household composition of WHD recipients



81. Another large group of beneficiaries from expanding the scheme will be households with children, accounting for an estimated 38% of recipients (up from 31% currently). Households with dependent children are more likely to experience fuel poverty, with DESNZ statistics showing that they have a fuel poverty rate of over 14%, which is 3 percentage points higher than the general population. There is some evidence that younger people could affect their mental health and resilience – see Annex 5: Evidence on health impacts).
82. The expansion should have an especially positive impact on single parents with dependent children. These households have a particularly high incidence of fuel poverty (estimated around 25% - more than double the rate of other households). An estimated 22% of the cohort of newly eligible households are lone parents, despite them only making up 7% of total households in England. Around 70% of single-parent households reported claiming a means-tested benefit to the EHS, so the majority of these households could now be eligible for WHD.

Ethnicity

Figure 6: Proportion of households from an ethnic minority



83. The proportion of households whose household reference person is from an ethnic minority group receiving WHD discount under the current policy will be almost identical to those receiving it under the expansion (18% vs 19%). This is broadly in line with the proportion of fuel poor households with their reference person being from an ethnic minority group (16%). We therefore expect no negative impact on particular ethnic groups to result from the scheme's expansion.

Other protected characteristics

84. Other protected characteristics (sex, gender reassignment, marriage or civil partnership, pregnancy and maternity, religion or belief, and sexual orientation) are not analysed here either because the English Housing Survey does not include them as variables or because the household-based nature of the survey (and indeed the scheme) prevent analysis of the impact of the scheme expansion based on these factors. We would expect the scheme to broadly reflect the profile of means-tested benefit recipients with respect to these factors.

9. Small and Micro Business Assessment

85. The cost of WHD is a direct cost to business that is then recovered through a levy on household energy bills. The rebate itself therefore represents zero net cost to businesses. Some administration costs will be incurred (see para 58), but for appraisal purposes we assume these will be passed on to consumers.
86. To be obligated to deliver the WHD, suppliers must have at least 1,000 customers. In December 2020 approximately 99% of households were with one of the obligated suppliers. As of September 2024, there were 21 active suppliers in the domestic gas and electricity markets⁴¹, 18 of which participated in WHD scheme⁴². We therefore expect smaller-scale suppliers to represent a very small share of the market.
87. We expect that these smaller suppliers are the most likely to have a small number of employees (e.g. less than 50). Any such suppliers will have a slight cost advantage as they are not required to undertake the administrative tasks involved in implementing the scheme and can price their energy products more competitively as a result.

⁴¹ [Retail market indicators | Ofgem](#)

⁴² [WHD Annual Report – Scheme Year 13](#)

10. Sensitivity Analysis of Key Assumptions

88. Given the uncertainty around some of the key assumptions, the following sensitivity analysis has been undertaken

- a. Cohort size/ number of means tested benefits recipients in Great Britain
- b. Conversion rate from receipt of qualifying benefit to receipt of WHD
- c. Energy prices (domestic retail prices and long run variable costs)
- d. Labelling effect
- e. Income elasticity

89. In order to measure the NPSV's sensitivity to variation in the individual assumptions, all other aspects of the policy have been kept constant so that it is possible to isolate the impact of a change in each assumption.

Expanded cohort size

90. The exact size of the cohort who will receive a rebate from an expanded WHD is uncertain, for two main reasons:

- a. The number of people on qualifying means-tested benefits could change over time. Our central scenario assumes 8.5m households in Great Britain will receive a qualifying benefit; as high and low sensitivities on this, we have used 9.4m and 7.7m (being $\pm 10\%$).
- b. The conversion rate from receiving a qualifying benefit to actually receiving the WHD is not 100%, and is subject to uncertainty. Our central scenario assumes 70% for this conversion rate; as high and low sensitivities on this, we have used 60% and 80%.

91. If the recipient cohort is larger than our central estimate, the costs recouped through energy bills will be proportionally higher (and likewise levy costs will be smaller if the cohort is smaller).

Energy prices

92. We have modelled the impacts of the scheme using the high and low energy price scenarios set out in HM Treasury Green Book supplementary guidance for valuing energy use. We have not attempted to model the wider impacts on consumption that these prices might cause. These do not have a large impact on the overall NPSV, since higher energy prices would mean each rebate buys fewer units of energy for the recipient, but that each unit of energy has a higher associated resource cost.

Behavioural response to rebate: Labelling Effect

93. Previous WHD Impact Assessments assumed that 41% of the total WHD rebate is spent on improving the thermal comfort of the recipients' homes⁴³. This is based on research for the Winter Fuel Payment which showed that labelled transfers (e.g., the label "Winter Fuel Payment") led to a higher proportion of the transfer being spent on fuel use than would typically be expected for a non-labelled transfer⁴⁴.

94. The WHD evaluation's findings regarding the labelling effect are mixed and do not offer conclusive results so the same assumption has been retained. However, the central

⁴³ <https://www.gov.uk/government/consultations/warm-home-discount-better-targeted-support-from-2022>

⁴⁴ Beatty, Blow, Crossley & O'Dea (2011). Cash by any other name? Evidence on Labelling from the UK Winter Fuel Payment, IFS Working Paper 11/10, available at: <http://www.ifs.org.uk/wps/wp1110.pdf>

finding from this paper has now been updated to 47% which we have used in our calculations.

95. As high and low sensitivities, we have used those provided in the paper (23% and 71%). A higher labelling effect results in a lower NPSV because it results in greater increases in energy consumption by rebate recipients, with an associated increase in the social costs of that consumption (carbon impacts and air quality impacts). The equity-weighting in the NPSV means that the scheme still represents a net social benefit. Any increase in energy consumption for rebate recipients would increase the positive impact the scheme has in alleviating under-heating of homes, but this is not reflected in the NPSV. The same patterns apply to a lower labelling effect (i.e. it has lower social costs of consumption, causing a higher NPSV, but it would result in less impact on under-heating).

Behavioural response to increased levy: Income Elasticity

96. Since the cost of the WHD is expected to be charged through standing charges, rather than as part of the unit price of energy, we have modelled the behavioural response of billpayers using an income elasticity; i.e. the increased WHD levy is treated as a loss of income, rather than specifically as an increase to the price of energy.
97. Income elasticity is used to measure the change in energy demand following a change in income, and the income elasticities used are based on a study by Jamasb and Meier (2010)⁴⁵. The assumed level of income elasticity affects the size of reduction in energy consumption (and therefore resource costs, emissions and air quality) by billpayers in response to paying a higher standing charge to fund the WHD. This effect is expected to be larger in low income households than in higher income households.
98. As a high sensitivity, we have modelled a demand response around ten times higher than the central scenario; we might expect this result if billpayers treat the increased standing charge as though it were an effective increase to the unit price of energy.
99. As a low sensitivity, we have modelled a demand response of zero; we might expect this result if billpayers regard the levy increase as being extremely marginal.
100. A higher income elasticity of demand results in a higher NPSV, as it means that billpayers will make a greater reduction in their energy consumption as a result of the increased cost of the levy, which reduces the associated social costs (carbon impacts and air quality impacts).

⁴⁵ Jamasb and Meier (2010), Household Energy Expenditure and Income Groups: Evidence from Great Britain.
<https://www.repository.cam.ac.uk/handle/1810/229412>

Table 6: Sensitivity analysis and impacts on *equity weighted* costs, benefits and net present social value (NPSV) for option 0

Assumption	Central value	Sensitivity assumptions	Net Present Benefit	Net Present Cost	NPSV
Central scenario	See Section 7	n/a	1,440	-1,180	260
Energy prices (Retail and LRVC)	Green Book central value	Green Book high and low values	High: 1,450 (0%) Low: 1,440 (0%)	High: -1,200 (2%) Low: -1,180 (0%)	High: 240 (-7%) Low: 260 (-1%)
Labelling effect	47%	High: 71% Low: 23%	High: 1,440 (0%) Low: 1,440 (0%)	High: -1,290 (9%) Low: -1,180 (-9%)	High: 150 (-41%) Low: 370 (41%)
Income elasticity	Income elasticity is assumed to vary by level of income, based on study by Jamasb and Meier (2010) ⁴⁶	High: all elasticities are 10x higher Low: all elasticities = 0	High: 1,480 (3%) Low: 1,440 (0%)	High: -1,180 (0%) Low: -1,180 (0%)	High: 300 (16%) Low: 260 (-2%)

⁴⁶ Jamasb and Meier (2010), Household Energy Expenditure and Income Groups: Evidence from Great Britain.
<https://www.repository.cam.ac.uk/handle/1810/229412>

Figure 7: Sensitivity analysis and impacts on *equity weighted* net present social value (NPSV) for option 0

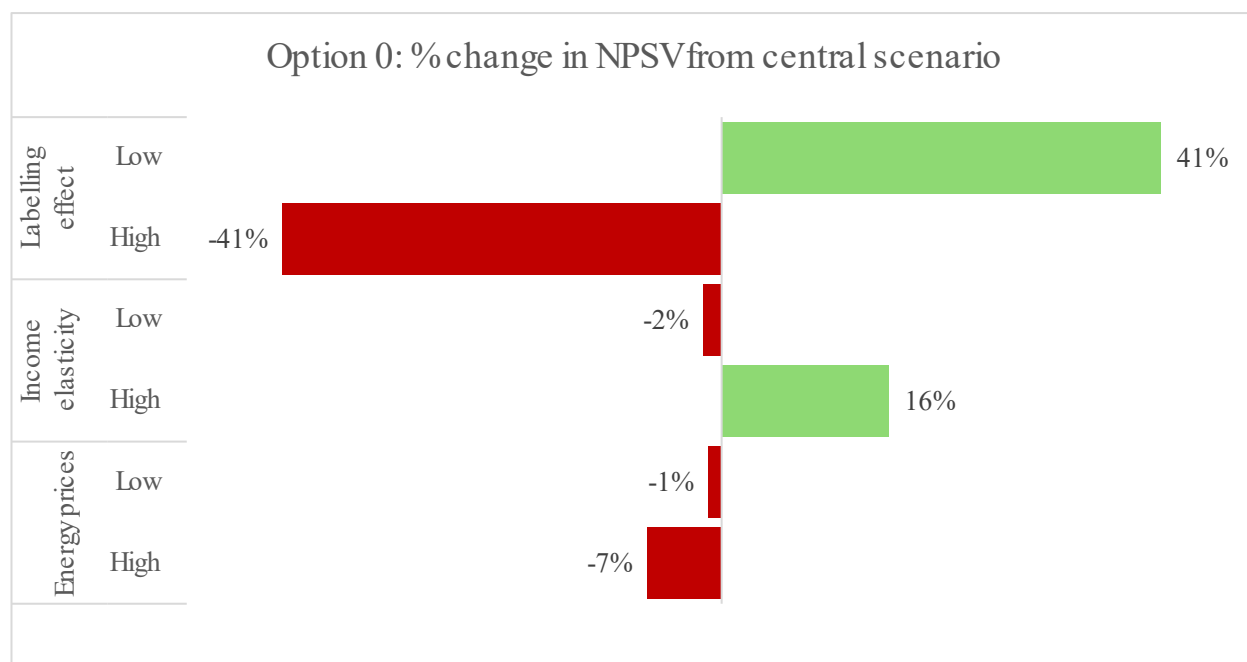


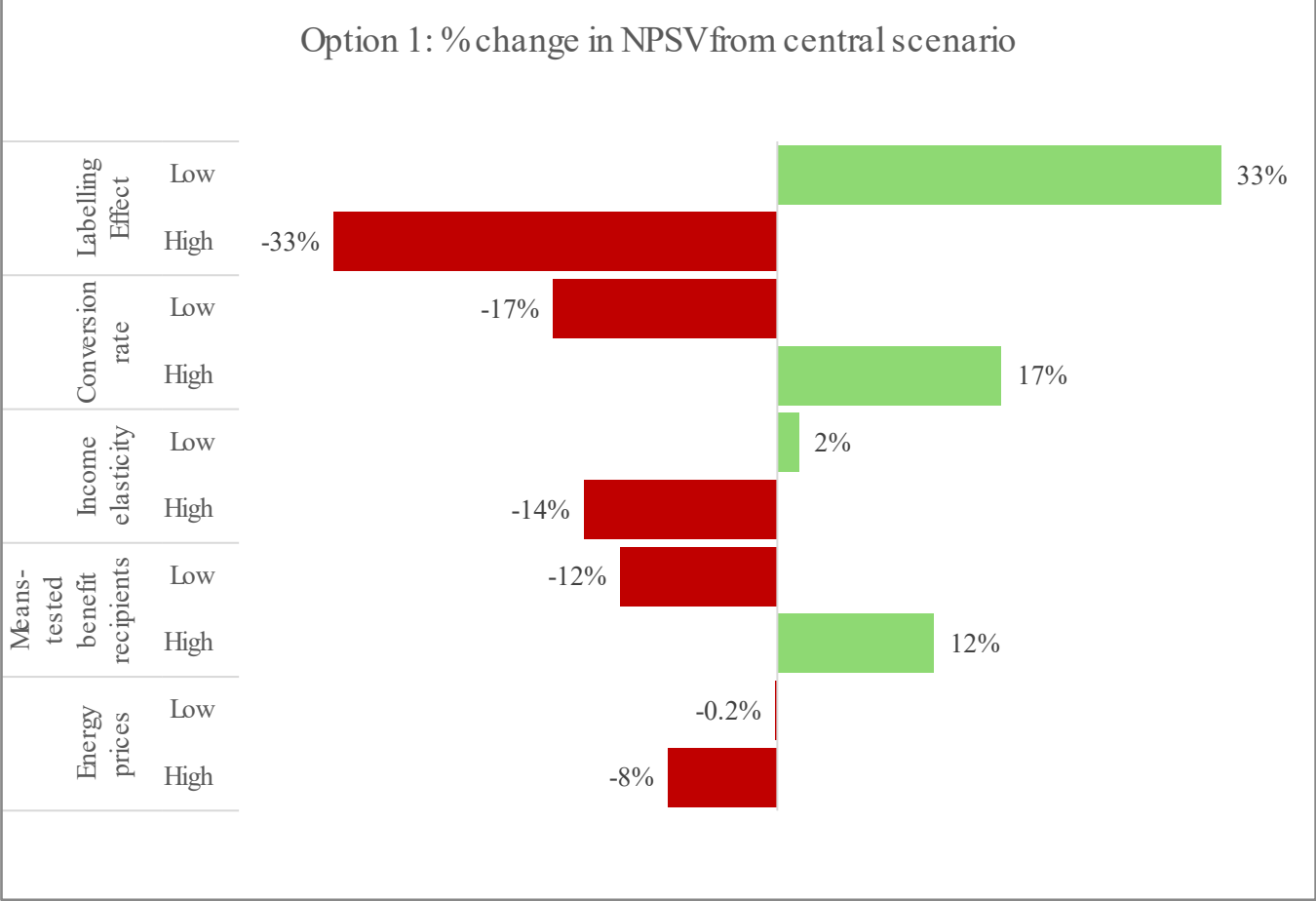
Table 7: Sensitivity analysis and impacts on *equity weighted* costs, benefits and net present social value (NPSV) for option 1

Assumption	Central value	Sensitivity assumptions	Net Present Benefit	Net Present Cost	NPSV
Central scenario	See Section 7	n/a	2,620	-2,030	590
Total means-tested benefit recipients (GB)	8.5m	High: +10% Low: -10%	High: 2,870 (10%) Low: 2,360 (-10%)	High: - 2,210 (9%) Low: - 1,850 (-9%)	High: 650 (12%) Low: 520 (-12%)
Conversion rate from receipt of qualifying benefit to receipt of WHD	70%	High: 80% Low: 60%	High: 2,980 (14%) Low: 2,250 (-14%)	High: - 2,290 (13%) Low: - 1,770 (-13%)	High: 680 (17%) Low: 490 (-17%)
Energy prices (Retail and LRVC)	Green Book central value	Green Book high and low values	High: 2,620 (0%) Low: 2,610 (0%)	High: - 2,080 (3%) Low: - 2,030 (0%)	High: 540 (-8%) Low: 580 (0%)
Labelling effect	47%	High: 71% Low: 23%	High: 2,620 (0%) Low: 2,620 (0%)	High: - 2,220 (10%) Low: -1,840 (-10%)	High: 390 (-33%) Low: 780 (33%)

Income elasticity	Income elasticity is assumed to vary by level of income, based on study by Jamasb and Meier (2010) ⁴⁷	High: all elasticities are 10x higher Low: all elasticities = 0	High: 2,680 (3%) Low: 2,610 (0%)	High: - 2,180 (8%) Low: -2,010 (-1%)	High: 500 (-14%) Low: 600 (2%)
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⁴⁷ Jamasb and Meier (2010), Household Energy Expenditure and Income Groups: Evidence from Great Britain.
<https://www.repository.cam.ac.uk/handle/1810/229412>

Figure 8: Sensitivity analysis and impacts on *equity weighted* net present social value (NPSV) for option 1



11. Monitoring and Evaluation

Monitoring

101. Ofgem produces annual reports on the delivery of the WHD scheme which reports key information such as which suppliers are obligated to provide rebates; schemes approved for Industry Initiatives; and the numbers of rebate recipients. Ofgem also conducts external and internal audits of the WHD scheme which are published in their report. These aim to provide assurance that information is being reported accurately, help suppliers follow best practice and protect consumers.
102. DESNZ release annual statistics on the WHD, which includes total rebates delivered, scheme spend, delivery rates and characteristics of rebate recipients. These statistics are provided for various geographies including at a national, regional and local authority level.
103. DESNZ has judged that a continuation of these reports will be sufficient to meet core monitoring needs for the current and expanded scheme.

Previous Evaluation

104. An evaluation of WHD was conducted in 2017, covering scheme delivery between 2010 and 2015⁴⁸. The evaluation conducted qualitative research with recipients as well as modelled impact analysis covering energy expenditure and the indoor environment. Key lessons from this evaluation were applied to the 2022 WHD reforms and continue to be applicable for further scheme expansion.
 - The rebate typically alleviated households' electricity usage for several months, releasing cash to be spent elsewhere (such as on gas use for heating or other general expenditure). The scheme's primary objective on "helping to mitigate the burden of rising energy prices on low-income households" was therefore achieved.
 - However, the 2017 evaluation concluded that the scheme's population targeting was not optimal for the primary objective on "removing a significant number of households from fuel poverty and improving the thermal comfort and health of assisted households". Core Group eligibility (prior to the 2022 reforms) was not found to be a strong indicator of households living in a cold home. The 2022 WHD scheme reforms amended targeting to include VOA evidence to identify homes estimated to have high heating costs, following analysis carried out by UCL that found deficiencies with the existing eligibility criteria.

Theory of Change

105. A Theory of Change was produced for the previous 2022 WHD scheme reform impact assessment⁴⁹, and this was updated as part of the existing evaluation. The Theory of Change will be revisited and updated as part of any evaluation activity covering the expansion the scheme.

Evaluation

106. An evaluation of the 2022 WHD scheme reforms is currently being undertaken and is due to complete in November 2026. The previous evaluation (2017) included an impact evaluation. The current evaluation is a mixed methods process- and outcome-evaluation focused on reforms made to the delivery of the scheme. It examines the delivery mechanisms, recipient and supplier experiences with the reforms and identifies perceived outcomes.

⁴⁸ <https://www.gov.uk/government/publications/warm-home-discount-evaluation-2010-to-2015>

⁴⁹

https://assets.publishing.service.gov.uk/media/6246b816d3bf7f32b11f1f7b/Warm_Home_Discount_reform_final_stage_Impact_Assessment.pdf

107. The following high-level evaluation questions are being addressed:

1. How is the recipient population of WHD structured?
2. How effective was the implementation and delivery of the WHD rebate?
3. How effective was the implementation and delivery of Industry Initiatives?
4. What outcomes have been achieved through providing WHD to recipients?
5. What are the wider lessons from the reformed WHD scheme?

108. In the first phase of this evaluation, research covered WHD recipient and energy supplier experiences from the 2022/23 and 2023/24 scheme years. Evaluation activities to date have been summarised in Table 8 below.

Table 8: Evaluation activities to date

Participant group	Method	Sample	Themes explored
WHD Recipients (2022/23)	Qualitative Interviews	26	<ul style="list-style-type: none">• Knowledge of scheme and referral routes• Use of online eligibility checker and helpline• Key processes• Use of the rebate• Changes in energy consumption• Perceived outcomes (i.e. thermal comfort, health and wellbeing)
WHD Recipients (2023/24)		52	
	Quantitative survey (weighted to be representative of 2023/24 WHD recipient population)	4,014	
Energy supplier representatives	Qualitative interviews	10	<ul style="list-style-type: none">• Experiences of administrative processes and costs• Experiences of Industry Initiatives• Experiences of targeting the most fuel poor customers

109. An interim report covering findings from the first phase of the evaluation is expected to be published in Spring 2025. These interim findings have already been considered internally to assess the 2022 WHD scheme reforms.

110. Phase two of the evaluation is due to include further fieldwork with recipients and energy suppliers on their experiences and perceived outcomes of the WHD scheme (covering 2024/25 and 2025/26). A second wave of the recipient survey is also planned to be conducted in 2026. Following this, a final evaluation report will be produced to cover findings from all research fieldwork across the evaluation (2022/23 to 2025/26). Any insights collected before these publication dates will be fed into the scheme delivery design through internal reporting mechanisms to ensure that evidence can be considered ahead of any policy changes.

Expanded WHD Scheme 2025/26 Evaluation Activity

111. As the existing process and outcome evaluation is due to cover winter 2025/26, it is expected that the current evaluation contract will evaluate any proposed policy changes, expanding where necessary.

112. Additional scoping will be required to understand the groups that may need to be sampled for the 2025/26 WHD recipient research activities. Data collection activities may

need to be adjusted to collect insight and data on the recipient groups who will be newly eligible. Data for sampling these new groups will come through existing arrangements, notably from DWP (who undertake data matching to identify citizens eligible for WHD) and the WHD helpline (those who consent to be contacted for research purposes).

113. Scoping activity will need to be considered alongside the already planned research activities (outlined above) and required budget and resource (see below).

Budget and Resourcing

114. The proposed monitoring approach would not require additional funding beyond existing Ofgem and DESNZ provisions for monitoring the current scheme.
115. As noted above, DESNZ evaluators will scope the activities required under the existing evaluation and whether additional resource or costs will be required.

Annexes

Annex 1: Fuel Poverty Measurement

LILEE and other fuel poverty definitions

1. Fuel poverty is a devolved matter, with separate indicators, targets and strategies adopted by each nation of the UK.
2. Fuel poverty in England is currently measured using the Low Income Low Energy Efficiency (LILEE) measure which defines a household as fuel poor if it has a residual income below the poverty line (after accounting for required energy costs) and lives in a home that has an energy efficiency rating below Band C. Under this definition, there were 2.7 million households (11%) in fuel poverty in England in 2024.
3. We are separately consulting⁵⁰ on the next Fuel Poverty strategy for England. This consultation seeks views on whether the fuel poverty strategy should be broadened to include an additional indicator to monitor the impact of energy prices on energy affordability.
4. Scotland and Wales use variations of the '10%' indicator, whereby a household is considered fuel poor if they need to spend more than 10% of their net income on energy.

Fuel poverty energy efficiency rating (FPEER)

5. A home's energy efficiency rating, as measured under the Standard Assessment Procedure (SAP), records how expensive a home is to heat and light and bases its estimates on standardised assumptions for occupancy and behaviour. WHD temporarily reduces heating costs through provision of energy bill rebates.
6. Official statistics measure these reductions in fuel costs using the Fuel Poverty Energy Efficiency Rating (FPEER). FPEER builds on SAP methodology as it also considers the impact of policy interventions that directly affect household energy costs (thereby adopting an approach closer to BREDEM⁵¹). Therefore, FPEER is relatively better than SAP at identifying fuel poor households as it considers the impact of policies, such as the WHD, on energy costs. The WHD rebate reduces energy bills and hence it temporarily improves a household's FPEER rating.
7. The Government has a statutory target to raise as many English fuel poor homes as is reasonably practicable to a minimum of FPEER band C by the end of 2030.
8. Energy efficiency improvements are the most effective way to support those facing fuel poverty in a lasting way. However, installing energy efficiency measures takes time, and currently many families are still living in a cold home. WHD provides an interim measure, while energy efficiency programmes are rolled out, by temporarily reducing the cost to heat a home through an energy bill rebate.

⁵⁰ [Review of the Fuel Poverty Strategy: consultation document](#)

⁵¹ Building Research Establishment Domestic Energy Model

Annex 2: Identifying “high energy cost” in the current WHD scheme

1. VOA data is used to determine which homes are deemed to have high expected energy costs. Floor area, property type (e.g. flat, semi-detached, detached, etc.) and age of building are used as the independent variables in a regression model. The regression predicts a home’s energy costs based on these explanatory variables. However, a home’s exact energy costs will depend on many factors not directly captured by these three factors.
2. The regression equation is of the following form:

$$\text{Estimated Energy Cost} = \text{Intercept} + (A \times \text{Age}) + (B \times \text{Floor area}) + (C \times \text{Property type})$$

3. The regression predicts energy costs, which is a variable available in the English Housing Survey’s Fuel Poverty dataset. Predicted energy costs are calculated for households in England and Wales to identify which ones appear to be high cost. These explanatory variables are available in the VOA data for the vast majority of homes in England and Wales (but not Scotland).
4. Some of the data values in a minority of cases (2%) are missing, but DESNZ has developed imputation processes to estimate these values using a range of statistical techniques. The regression approach was developed in collaboration with UCL and then peer reviewed by the ONS.
5. Homes are ranked according to their modelled energy costs and matched to DWP benefits records to determine those that are low income. Of these low income households, those that sit above a “high-energy cost” threshold form the Core Group 2. The following determines where Government sets the high-cost-to-heat threshold: i) desired level of spending ii) the assumed matching success rate with energy suppliers and iii) assumptions on how many additional households may claim a rebate through the helpline (“sweep-up” process).

Annex 3: Equity weights

1. The Warm Home Discount scheme is redistributive, transferring income from all billpayers (those from participating suppliers) to low income and vulnerable households.
2. Equity weighting is founded on the principle that relatively poor households put a greater value on a unit of additional income than relatively rich households (i.e. there is a diminishing marginal utility of income).
3. The Green Book⁵² provides an estimate of the marginal utility of income at 1.3. This estimate can be used to calculate equity weights using the formula set out below.

$$\text{Equity weight for each decile} = \left(\frac{\text{Median Income of total population}}{\text{Median income of income decile}} \right)^{1.3}$$

Table 9: Equity weights used in NPV

Income decile (where 1 is the lowest)	Equity weight
1	5.92
2	2.63
3	1.81
4	1.38
5	1.12
6	0.90
7	0.74
8	0.61
9	0.47
10	0.31
Figures based on English Housing Survey 2022/23 Calculated in line with: HM Treasury, The Green Book (2020), 'Distributional analysis by income group', Annex A3. Sub-national and Distributional Analysis, Page 97-99. <u>The Green Book</u>	

⁵² The Green Book (Annex 3, p97-99)

Annex 4: Equivalisation factors

Equivalisation is a method used to make household incomes comparable by adjusting for household size and composition. Household size is important to consider because larger households usually need a higher income than smaller households to achieve a comparable standard of living. The composition of a household also affects resource needs, for example, living costs for adults are normally higher than for children. After equivalisation has been applied, households with the same equivalised income can be said to have a comparable standard of living.

The following tables present the equivalisation factors used in the derivation of the English fuel poverty flag. A household's income and fuel cost are divided by the relevant equivalisation factors to create the final 'Equivalised After Housing Cost (AHC) income'.

Table 10: Equivalisation factors for fuel costs under the Low Income, Low Energy Efficiency (LILEE) indicator⁵³

Number of people in the household	Equivalisation factor
One	0.82
Two	1.00
Three	1.07
Four	1.21
Five or more	1.32

Table 11: Equivalisation factors for after housing costs income under the Low Income, Low Energy Efficiency (LILEE) indicator⁵⁴

Number of people in the household	After Housing Costs (AHC) income equivalisation factor
First adult in the household	0.58
Subsequent adults (includes partners and children aged 14 or over)	0.42
Children under 14	0.20

⁵³ See Table 13 in [Fuel poverty methodology handbook \(Low Income Low Energy Efficiency\) 2024](#)

⁵⁴ See Table 11 in [Fuel poverty methodology handbook \(Low Income Low Energy Efficiency\) 2024](#)

Annex 5: Evidence on health impacts

1. Maintaining a warm home is important for health and wellbeing. Research by the Building Research Establishment estimated that excessively cold homes in England could be costing the NHS £540m a year in preventable costs⁵⁵. The UK Health Security Agency's Adverse Weather and Health Plan stated that indoor temperatures of below 18°C are associated with adverse health effects including cardiovascular (blood pressure) and respiratory (COPD symptoms, respiratory viral infection) diseases impacting older people and people with chronic health problems. Respiratory conditions can be made worse by damp and mould resulting from cold, poorly ventilated properties.
2. Cold housing can also negatively affect children's emotional wellbeing and resilience. It can be difficult for children to study or do homework in a cold house; this can affect educational and long-term health and work opportunities. Studies have suggested that more than 1 in 4 adolescents living in cold housing are at risk of developing mental health conditions, compared with 1 in 20 adolescents who have always lived in warm housing⁵⁶.

⁵⁵ <https://bregroup.com/news/tackling-cold-homes-would-save-the-nhs-540mn-per-year-new-bre-research-reveals>

⁵⁶ The UK Health Security Agency's Adverse Weather and Health Plan Supporting Evidence (2024)

Annex 6: Regional impacts

Table 12: Regional impacts of the WHD scheme

Region	WHD 2023/24 (part projection for Scotland)	Estimated** WHD under expansion (projection)	Estimated # households added, compared to WHD 2023/24 (projection)	Estimated percentage increase in WHD recipients, compared to 2023/24
North East	200,000	300,000	100,000	50%
North West	500,000	780,000	280,000	57%
Yorkshire and The Humber	350,000	560,000	210,000	59%
East Midlands	270,000	430,000	160,000	62%
West Midlands	350,000	620,000	270,000	78%
East of England	250,000	500,000	250,000	102%
London	380,000	950,000	570,000	150%
South East	320,000	670,000	350,000	111%
South West	230,000	450,000	220,000	93%
Wales	210,000	320,000	110,000	50%
Scotland*	280,000	520,000	240,000	86%
Total***	3,330,000	6,100,000	2,760,000	82%

*Scotland 2023/24 estimated by combining published 2023/24 Core Group rebates with a Broader Group figure published by Ofgem. Other WHD 2023/24 figures are published here: <https://www.gov.uk/government/statistics/warm-home-discount-statistics-2023-to-2024>. Estimates for an expanded scheme in Scotland are based on regional distributions of MTBs but ultimately the spend available to Scotland will be 9.4% of the overall GB scheme. Rebate numbers will depend on how that spend is split between rebates and Industry Initiatives.

**Expansion regional breakdown estimated based on regional distributions of means-tested benefit recipients, from DWP's statxplre tool <https://stat-xplre.dwp.gov.uk/>

*** GB totals are based on a combination of DWP and Ofgem data sources, which means they may not sum to the same totals used elsewhere in this document

- All figures rounded to nearest 10k, percentages rounded to the nearest percent. Percentages may not be reproducible from figures provided as they were calculated before rounding.
- The actual number of eligible households will depend on the number of households receiving a relevant means-tested benefit or tax credit at the time (currently estimated to be around 8.5 million for GB, of which 6.1m are estimated to qualify for WHD), the number of those who are named on the electricity bill, data matching rates and the number of households who come forward to claim the rebate when invited to do so. Therefore, the ultimate number of recipients is subject to this uncertainty and estimates here are based on the current number of eligible benefit recipients and rebate conversion rates observed in the current WHD scheme.
- Scotland: Under the expanded scheme energy suppliers will still deliver rebates via the Broader Group therefore there is an increased level of uncertainty in projections for Scotland as rebate numbers will be reliant on suppliers identifying sufficient numbers of eligible households.