Title: Warm Home Discount Scheme 2021/22 Extension **IA No: BEIS017(C)-20-CG** **RPC Reference No: N/A** **Lead department or agency:** Department for Business, Energy and Industrial Strategy **Other departments or agencies:**	**Impact Assessment (IA)** **Date:** 02/09/2020 **Stage:** Consultation **Source of intervention:** Domestic **Type of measure:** Secondary legislation **Contact for enquiries:** warmhomediscount@beis.gov.uk

Summary: Intervention and Options

RPC Opinion: Not Applicable

Cost of Preferred Option 1 (in 2021 prices)			
Total Net Present Social Value Normal: £-20m Equity Weighted: £90m	**Business Net Present Value** N/A	**Net cost to business per year** N/A	**Business Impact Target Status** Qualifying provision

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

In 2018, 2.4 million households were considered fuel poor in England, where these households were on low incomes and could not heat their home sufficiently at a reasonable cost. Warm Home Discount provides rebates to over 2 million low income or vulnerable households in Great Britain each year, aiming to relieve the depth of fuel poverty for vulnerable households at or in fuel poverty and reduce distributional inequity caused by the cost of energy on low income households.

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

Extend the scheme to 2021/22 (scheme year 11) to continue providing over 2 million rebates to households at risk of or in fuel poverty. This is to:

- Lower the depth of fuel poverty through providing energy bill support to low income and vulnerable households who are at risk of or in fuel poverty.
- Alleviate distributional inequity, by lowering the disproportionate impact of the cost of energy on low income vulnerable households.

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

- **Do Nothing:** WHD scheme will end in 2020/21 (scheme year 10), removing energy bill support to low income and vulnerable households.
- **Option 1 – Extend WHD to 2021/22 with changes to Industry Initiatives (Preferred):** This option will extend the scheme for a single year, ensuring support to households at risk of fuel poverty and improve facilitation of Industry Initiatives, simplifying the process for suppliers and caps debt relief per household ensuring debt relief can go to more low income/vulnerable households.
- **Option 2 - Extend WHD to 2021/22 and maintain status quo.** This option will extend the scheme for a single year, under the status quo, ensuring support to households at risk of fuel poverty.

Will the policy be reviewed? It will not be reviewed. **If applicable, set review date:** N/A

Does implementation go beyond minimum EU requirements?		N/A		
Is this measure likely to impact on international trade and investment?		No		
Are any of these organisations in scope?	**Micro** No	**Small** Yes	**Medium** Yes	**Large** Yes
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)		**Traded:** +0.11	**Non-traded:** +0.24	

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: Date: 12.10.2020

Summary: Analysis & Evidence — Policy Option 1

Description: Extend WHD to 2021/22 with changes to Industry Initiatives (Preferred)

FULL ECONOMIC ASSESSMENT

Price Base Year 2021	PV Base Year 2021	Time Period Years 1	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	**High:** N/A	**Best Estimate:** **Normal NPV: -£20m** **Equity weighted: £90m**

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Best Estimate	N/A	N/A	N/A	**Normal PV: -£410m** **Equity Weighted PV: -£630m**

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

- Suppliers recoup the total value of their obligation, plus any administrative costs they incur, through raising the price of an energy tariff. This is estimated to lead to costs to consumers of PV £350m, after equity weighting PV £410m, of which £7m is due to supplier administration costs.
- Increased income for rebate recipients is expected to lead to a net increase in energy consumption. Those who do not receive the rebate but pay for the cost of WHD will be expected to reduce their energy consumption. This leads to a net increase in resource costs of PV £68m, and a reduction in utility from energy consumption by PV £130m, PV £4m after equity weighting.
- Net increase in fuel consumption leads to GHG emissions costs of PV £20m
- Net increase in fuel consumption leads to air quality costs of PV £6m
- Administrative costs to Government of PV £2m.

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

None identified

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Best Estimate	N/A	N/A	N/A	**Normal PV: £390m** **Equity Weighted PV: £720m**

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

- Main benefits from rebates delivered to eligible households are split between increases in income and comfort, PV £350m and PV £2m respectively, after equity weighting, PV £410m and PV £280m.
- The portion of the rebate spent on fuel consumption leads to an increase in comfort, which is equity weighted to represent the value of increasing the temperature of a cold home.
- The portion of the rebate not spent on fuel consumption is equity weighted to represent the greater value of a unit of income for low income households.
- Industry Initiatives provide support to fuel poor households outside of the eligibility criteria for rebates leading to benefits of PV £29m, of which, debt relief has been capped per household (PV £3m), allowing debt relief from industry initiatives to go further.

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

- The bill rebate is intended to encourage increased energy usage in cold homes amongst vulnerable households to increase the temperature of their home. This is likely to lead to health improvements.
- Industry Initiatives have not been equity weighted, as take-up of each scheme is not certain. However, low income households are likely to benefit from reduced energy bills and improvements to mental health due to the provision of energy advice, debt advice and debt relief.

Key assumptions/sensitivities/risks — **Discount rate (%)** 3.5%

The main assumption is that applicants for the Warm Home Discount are low income and in fuel poverty. Sensitivity analysis for the rebate distribution suggests the NPV will range from £80m - £120m. Households are also expected to spend the rebate on additional energy consumption, which would otherwise not lead to the equity weighted benefits presented.

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	

Summary: Analysis & Evidence — Policy Option 2

Description: Extend WHD to 2021/22 and maintain status quo.

FULL ECONOMIC ASSESSMENT

Price Base Year 2021	PV Base Year 2021	Time Period Years 1	Net Benefit (Present Value (PV)) (£m)		
			Low: N/A	**High:** N/A	**Best Estimate:** **Normal NPV: -£30m** **Equity weighted: £90m**

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Best Estimate	N/A	N/A	N/A	**Normal PV: - £410m** **Equity Weighted PV:-£630m**

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

- Suppliers recoup the total value of their obligation, plus any administrative costs they incur, through raising the price of an energy tariff. This is estimated to lead to costs to consumers of PV £350m, after equity weighting PV £410m, of which £7m is due to supplier administration costs.
- Increased income for rebate recipients is expected to lead to a net increase in energy consumption. Those who do not receive the rebate but pay for the cost of WHD will be expected to reduce their energy consumption. This leads to a net increase in resource costs of PV £68m, and a reduction in utility from energy consumption by PV £130m, PV £4m after equity weighting.
- Net increase in fuel consumption leads to GHG emissions costs of PV £20m
- Net increase in fuel consumption leads to air quality costs of PV £6m
- Administrative costs to Government of PV £2m.

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

None identified.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Best Estimate	N/A	N/A	N/A	**Normal PV: £380m** **Equity Weighted PV: £720m**

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

- Main benefits from rebates delivered to eligible households are split between increases in income and comfort, PV £350m and PV £2m respectively, after equity weighting, PV £410m and PV £280m.
- The portion of the rebate spent on fuel consumption leads to an increase in comfort, which is equity weighted to represent the value of increasing the temperature of a cold home.
- The portion of the rebate not spent on fuel consumption is equity weighted to represent the greater value of a unit of income for low income households.
- Industry Initiatives provide support to fuel poor households outside of the eligibility criteria for rebates leading to benefits of PV £26m.

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

- The bill rebate is intended to encourage increased energy usage in cold homes amongst vulnerable households to increase the temperature of their home. This is likely to lead to health improvements.
- Industry Initiatives have not been equity weighted, as take-up of each scheme is not certain. However, low income households are likely to benefit from reduced energy bills and improvements to mental health due to the provision of energy advice, debt advice and debt relief.

Key assumptions/sensitivities/risks	Discount rate (%)	3.5%

The main assumption is that applicants for the Warm Home Discount are low income and in fuel poverty. Sensitivity analysis for the rebate distribution suggests the NPV will range from £80m to £120m. Households are also expected to spend the rebate on additional energy consumption, which would otherwise not lead to the equity weighted benefits presented.

BUSINESS ASSESSMENT (Option 2)

<table>
<tr><td colspan="3">Direct impact on business (Equivalent Annual) £m: N/A</td><td rowspan="2">Score for Business Impact Target (qualifying provisions only) £m: N/A</td></tr>
<tr><td>Costs: N/A</td><td>Benefits: N/A</td><td>Net: N/A</td></tr>
<tr><td colspan="3"></td><td></td></tr>
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1. Introduction

1. The Warm Home Discount scheme (hereafter WHD) was introduced in April 2011 and covers Great Britain. It succeeds a previous Voluntary Agreement between Government and the largest energy suppliers to provide household level support to reduce energy costs.

2. WHD provides direct energy bill support for many fuel poor households, but also reduces the bills for many low income and vulnerable households. This policy contributes to both the Government's fuel poverty objectives and addresses broader distributional concerns across low income households arising from energy price rises and the impact of energy and climate change policies funded through bills.

3. The current WHD scheme is set to end in scheme year 10 (financial year 2020/21). The Government intends to extend the WHD scheme to scheme year 11 (financial year 2021/22), with the intention of reforming the scheme to improve fuel poverty targeting from scheme year 12 onwards.

4. The cost of WHD is met by energy suppliers. The total spending envelope was set during the 2015 Spending Review at £320m per year, in 2015 prices, rising with inflation. For the period considered in this impact assessment, the total spend will continue at current levels but adjusted for inflation at around £357m. This, alongside suppliers' costs of administering the policy, will be funded through increased energy bills for customers of obligated suppliers at an estimated cost of around £14 per dual fuel household.[1]

5. In scheme year 8 (Winter 18/19), the WHD provided rebates worth £140 to more than 2.2m low income and vulnerable households annually in Great Britain[2]. The WHD scheme has an overall expenditure target for each financial year, which is divided into 3 main subgroups. Around half of annual spending contributes towards automatic rebates to the electricity bills of low-income pensioners who are in receipt of a subset of Pension Credit, known as the '**Core Group'**.

6. The level of annual Core Group expenditure is determined by the number of qualifying households each year. Customers eligible for the Core Group are identified by the Department for Work and Pensions. The remainder of the spending profile is referred to as **'Non-Core'** expenditure. Each year the Secretary of State for the Department for Business, Energy and Industrial Strategy sets a minimum level of expenditure that participating suppliers are required to undertake on Non-Core activities in that scheme year. The 'Non-Core' activities are divided into two elements:

    - **The 'Broader Group' -** Participating suppliers provide energy bill discounts to a variety of low income and vulnerable households, mainly of working age, who are deemed to be in or at risk of fuel poverty and are not part of the Core Group. The number of rebates delivered to the Broader Group in scheme year 8 was 1.1 million.

    - **Industry Initiatives -** Participating suppliers are currently permitted to spend up to a collective total of £40m per year on actions to support households in fuel poverty or at risk of fuel poverty[3]. These activities include providing debt write-off, installing energy efficiency measures, and offering energy saving advice or providing rebates to certain households.

[1] Based on approximately 52.2 million gas and electricity customer accounts. Source: BEIS, Quarterly domestic energy switching statistics (QEP 2.7.1) and market share covered under the 150,000 supplier obligation threshold.

[2] Latest published data from Ofgem, Warm Home Discount Annual Report: Scheme Year 8. https://www.ofgem.gov.uk/system/files/docs/2019/12/whd_sy8_annual_report.pdf

[3] Industry initiatives are split across obligated energy suppliers according to their market share.

2. Problem under consideration and rationale for intervention

2.1. Fuel poverty

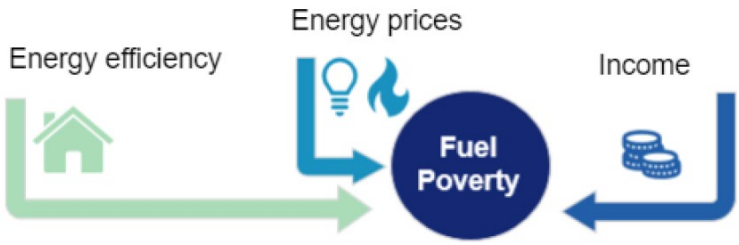
7. The Warm Home Discount exists as part of the Government's aim to tackle and alleviate fuel poverty. Fuel poverty is defined in the Warm Homes and Energy Conservation Act 2000 as:

> "a person [who] is a member of a household living on a lower income in a home which cannot be kept warm at reasonable cost."

8. Fuel Poverty is a devolved matter, with separate indicators, targets and strategies adopted by each nation of the UK. In England, a household is currently considered to be in fuel poverty if the home has higher than typical energy costs and, were they to spend that amount on energy, they would be left with a residual income below the official poverty line[4]. Households who meet both conditions are referred to as either **Low Income High Cost (LIHC)** or fuel poor. There are currently around 2.4m households living in fuel poverty in England according to 2018 statistics[5].

9. 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. The analysis contained within this Impact Assessment is based on the indicator of fuel poverty used in England owing to available data. The factors that drive households into fuel poverty are the heating costs (affected by energy efficiency), energy prices and income (depicted in Figure 1).

Figure 1: Factors affecting fuel poverty



10. The Government has a statutory target to raise as many English fuel poor homes as is reasonably practicable to EPC band C by 2030, with milestones of band E (2020) and band D (2025). 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.

11. An electricity bill rebate of £140 reduces the home's energy bill by £126/year (£140 less the estimated policy cost of £14/year) and therefore reduces the **fuel poverty gap**.

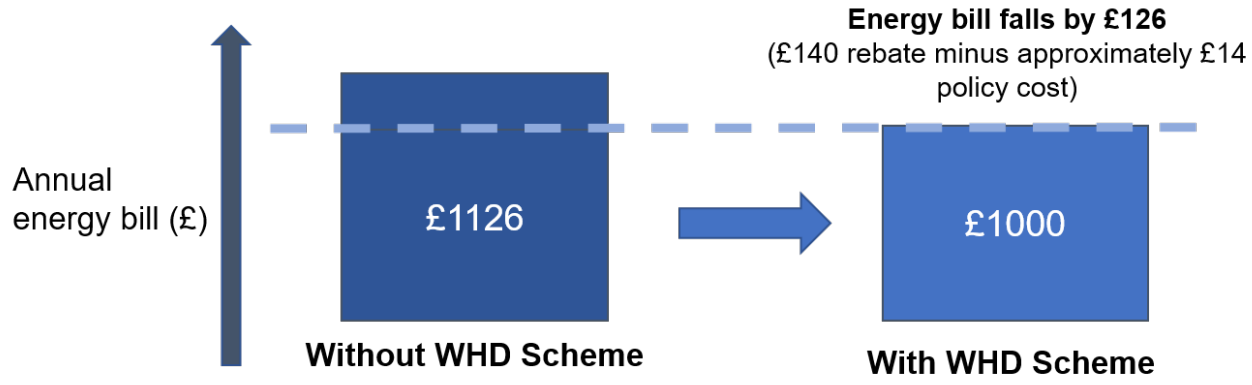
Fuel Poverty Gap

12. Figure 2 illustrates the reduction in energy bill stemming from WHD energy bill rebates.

[4] The poverty line (income poverty) is defined as an equivalised disposable income of less than 60% of the national median (Section 2): https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/articles/persistentpovertyintheukandeu/2015

[5] Source: BEIS, Annual fuel poverty statistics report: 2020. https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2020

Figure 2: Reduction in energy bill from WHD rebate[6]



13. The fuel poverty gap is the difference between a fuel poor household's actual heating costs and average fuel costs across England. Fuel poor households in receipt of WHD energy bill rebates have a lower fuel poverty gap than they would without such a rebate. The aggregate fuel poverty gap is a summation of the fuel poverty gap of every fuel poor household in England and measures the severity of the problem. The WHD helps to reduce the aggregate fuel poverty gap. In 2018, the average fuel poverty gap in England was estimated at £328.[7] This would be higher without the WHD scheme. Figure 2 presents modelled estimates of the extent to which WHD rebates reduce the fuel poverty gap.

2.2. Rationale for intervention

14. The existing WHD scheme is due to end in scheme year 10 (FY 20/21). Extending the WHD scheme will enable Government to provide continued support toward vulnerable households, these benefits are discussed in greater detail below:

- **Fuel Poverty:** Direct bill support can reduce the depth of fuel poverty (measured by the fuel poverty gap), remove households from fuel poverty altogether, improve the thermal comfort and health of benefiting households, and help make progress towards the Government's statutory fuel poverty objectives.

- **Distributional Equity:** High energy prices disproportionately affect low income households because heating is a necessity good, therefore spending on heat, on average, makes up a larger proportion of low-income households' expenditure than higher income households. This issue is exacerbated by properties with poor energy efficiency, where households in the bottom four income deciles live in Fuel Poverty Energy Efficiency Rating[8] (FPEER) D-G households and must spend more on energy to heat their home.

- **Covid-19:** The negative economic impacts of the coronavirus pandemic are likely to have long-term impacts on incomes and unemployment. These households are likely to face the distributional equity issues laid out above. The Warm Home Discount scheme will therefore continue to protect vulnerable low-income households including pensioners.

[6] Annual energy bills figures are solely illustrative to show the impact of the WHD rebate.

[7] Source: BEIS, Annual fuel poverty statistics report: 2020. https://www.gov.uk/government/statistics/annual-fuel-poverty-statistics-report-2020

[8] Fuel Poverty Energy Efficiency Rating (FPEER) is a measurement used to track progress against fuel poverty targets. FPEER accounts for policies that directly affect the cost of energy, and is based on the 2012 edition of the Standard Assessment Procedure (SAP).
Source: DECC, Fuel Poverty (England) Regulations 2014 and methodology. https://www.gov.uk/government/publications/fuel-poverty-england-regulations-2014-and-methodology

15. Government intends to extend the scheme for a single year to scheme year 11 (FY 21/22). Beyond the single-year scheme extension, the Government plans to consult on a set of reforms to the Warm Home Discount scheme once more information is available on the economic impact of Covid-19. The reform will set out proposals to improve targeting of energy bill rebates to those most at risk of fuel poverty.

16. Government is not considering reforming the scheme in scheme year 11 due to insufficient information on the long-term impacts of the coronavirus pandemic. This has led to a single-year extension for the scheme in its current state.

17. The rationale for extending the scheme is therefore to continue supporting vulnerable and fuel poor households in scheme year 11, whilst providing sufficient time to plan and implement future reforms to improve the scheme from scheme year 12 onwards.

3. Policy options

3.1. Policy objective

18. The government proposes to extend the WHD scheme until 2021/22 (Scheme year 11). This is to ensure fuel poor or at risk households can sufficiently heat their home. The WHD spending envelope for 2020/21 is currently set at £351m[9]. For 2021/22, this will increase with inflation (CPI) to approximately £357m[10]. The energy bill rebate will remain at £140 per household, with the additional spending going towards more households.

19. The objectives of the Warm Home Discount extension are:

- Lower the depth of fuel poverty through providing energy bill support to low income and vulnerable households who are at risk of or in fuel poverty.
- Alleviate distributional inequity, by lowering the disproportionate impact of the cost of energy on low income vulnerable households.

3.2. Shortlist of options

20. This impact assessment considers the single-year extension discussed within the rationale for intervention. The policy options presented below describe the different methods of extending the scheme. Three options have been considered:

- Do Nothing (Counterfactual):
  This is the counterfactual the policy options are assessed against. Current scheme regulations stipulate that the Warm Home Discount scheme will stop at the end of 2020/21 scheme year (scheme year 10), removing energy bill support to low income and vulnerable households.

- Policy option 1 (Preferred): Single year scheme extension to 2021/22 with changes to industry initiatives:
  The changes proposed for industry initiatives will give flexibility to suppliers, to ensure support can reach more fuel poor or at risk households. Industry Initiatives will remain capped at £40 million, with the debt relief cap remaining at £6 million. Additional improvements include:
  - A debt relief cap for each individual customer, capped at £2,000.
  - Financial assistance will remain capped at £5 million, but eligibility criteria restrictions will be reduced, enabling eligibility for Broader Group and Core Group recipients.
  - Smart meter advice will be delivered, so far as reasonably practicable, to every recipient of an industry initiative to raise awareness of smart meters.
  - Requiring TrustMark certification for repairs or replacement of boilers and central heating.
  - Reducing administrative burden of the scheme, through enabling Suppliers of Last Resort to voluntarily take on a failing participant's WHD obligation.

- Policy option 2: Maintain status quo - single year scheme extension to 2021/22 in current form:

[9] Spending envelope based on £340m spend in scheme year 8, increasing in line with the consumer prices index. Source: The Warm Home Discount Regulations 2011, Schedule 1.

[10] Based on CPI forecasts. Source: OBR (2020), Economic and fiscal outlook – March 2020. https://obr.uk/efo/economic-and-fiscal-outlook-march-2020/

- The WHD scheme will continue for a single year into 2021/22 in its current form, Industry Initiatives will remain capped at £40m and no changes will be made to the debt relief cap or financial assistance.

21. The do-nothing approach means that the current WHD scheme would end after 2020/21. Pension Credit Guarantee Credit recipients and households at risk of fuel poverty will no longer receive energy bill rebates worth £140, and Industry Initiatives funding towards long term energy efficiency improvements and financial support to low income households will cease. Energy suppliers may still provide some form of debt relief under this option; however, providing financial support would not be incentivised.

22. Under policy option 1, the WHD scheme will continue for an additional year during 2021/22. Pension Credit Guarantee Credit recipients will be safeguarded, and energy suppliers will seek households at risk of or in fuel poverty within the broader group mandatory criteria[11]. Of those receiving rebates, around 19% of the cohort are estimated to be in fuel poverty. In previous scheme years, debt relief has been used extensively, and, as a result, allowed spending was capped. With the introduction of the debt relief individual cap and the overall spending cap unchanged (at £6m), it is likely a larger number of households will receive debt relief.

23. Under policy option 2, the WHD scheme will continue until 2021/22, but without the additional changes to Industry Initiatives outlined in policy option 1. PCGC recipients will remain safeguarded, and energy suppliers will be encouraged to seek households at risk of or in fuel poverty within the broader group mandatory criteria. Around 19% of this cohort are estimated to be in fuel poverty.

24. In policy options 1 and 2, energy suppliers will be able to spend up to £40m on Industry Initiatives projects. These cover a range of innovative schemes focusing on improving energy efficiency and creating bill savings for fuel poor and vulnerable households who may not fulfil the mandatory Core or Broader Group criteria, such as those not on benefits or living in a park home. Improvement and innovation are encouraged, where it is best aligned to Government priorities (such as helping customers on prepayment meters who self-disconnect).

3.3. Options not considered

25. Government has not considered extending the current scheme for longer than one year due to the aspiration to reform the scheme from Winter 22/23.

26. The government is not planning to change the supplier obligation threshold from 150,000 customer accounts. Increasing the threshold would undermine previous efforts to enable more households to receive the WHD rebate, preventing eligible customers of small suppliers currently above the threshold from applying in scheme year 11. While reducing the threshold would allow more households to apply for the WHD under their supplier, doing so for a single scheme year extension would introduce additional administrative burden of fulfilling WHD, on top of the negative economic effects of coronavirus pandemic.

[11] The Warm Home Discount Regulations 2011, Schedule 2.

3.4. Covid-19 risks to Broader Group

27. Government believes there is low risk that Covid-19 will disrupt delivery or significantly change the demographic of those applying for Warm Home Discount. Government acknowledges that the economic impacts of the coronavirus pandemic may increase unemployment, at least in the short term[12], leading to an increase in Universal Credit claimants, and therefore increasing the number of households eligible to receive the Warm Home Discount under the Broader Group in 2021/22.

28. However, it is unlikely that the demographic of those receiving the Broader Group rebate will change, as the mandatory eligibility criteria will remain unchanged, focussing on those who are both low income and vulnerable. The manual nature of the Broader Group rebate scheme also mitigates this risk, favouring households with current knowledge of WHD. Those who currently receive WHD through the Broader Group are likely to receive reminders from their energy supplier to reapply the following year.

3.5. Preferred option

29. The Government's preferred option is to extend the Warm Home Discount scheme by one year, whilst implementing changes to Industry Initiatives to facilitate the delivery of assistance to households who are most in need, such as those with a health condition or at risk of self-disconnection. This will be achieved through the use of financial assistance, debt relief, and mandatory advice on the benefits of smart meters. Compared to the status quo, the changes to industry initiatives under the preferred option will increase the number of initiatives to support fuel poor households and extends the reach of financial assistance and debt relief to more vulnerable and fuel poor households.

30. After inflation, Government estimates the size of the scheme will be around £357m in 2021/22, aiming to deliver approximately 2.3m rebates worth £140 each to households in Great Britain, and provide up to £40m in support through Industry Initiatives. For billpayers, this cost has been estimated at approximately £14/year per dual fuel household.

31. The Government will consult on how best to implement changes towards Industry Initiatives and will lay regulations in 2021 to procure delivery services in time for administrating the scheme in October 2021.

[12] Employment rates weakened in April to June 2020, though unemployment did not rise due to increases in people out of work, but not currently looking for work, who are instead classed as economically inactive, rather than unemployed.
Source: ONS (2020), Employment in the UK: August 2020.
https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/bulletins/employmentintheuk/july2020

4. Analytical approach

32. The impacts of Warm Home Discount have been estimated below using the 2016/17 English Housing Survey (EHS) and accompanying fuel poverty dataset. These figures will cover the demographics of who is likely to receive the rebate and cover the costs and benefits of the scheme. The results have been upscaled from England only to Great Britain. As the policy options appraised only effect industry initiatives, the number of rebate recipients will be the same for each policy option.

33. Core Group rebates are allocated automatically by data matching DWP's Pension Credit Guarantee Credit (PCGC) recipients to obligated energy suppliers' customer records. The level of Core Group spending is estimated using the successful data matching rate (c.82%) from previous scheme years and the caseload of the number of PCGC recipients. The remainder is then allocated to the Broader Group, with an estimated £33m going towards Industry Initiatives.

34. The demographics of the Core Group and Broader Group are determined by identifying households within the EHS who are in receipt of PCGC or fulfil the Broader Group mandatory criteria.

35. The benefits of the scheme are measured by estimating who receives the rebate and equity weighting the rebate value according to the households income decile (lower income groups have higher equity weights and vice versa).

36. The costs of the scheme assume an average levy amount is paid by each household in the country and equity weighted according to the household income decile. Other costs captured in the CBA cover the increase in fuel consumption. Households are expected to increase their energy consumption in order to heat their home to a greater temperature, creating costs to emissions, resources and air quality. These costs and benefits of the scheme are explained in more detail in Section 4.1 below.

37. To account for leakage, any rebates delivered to an income decile above 5 are given an equity weight below 1 (See Annex B). Any rebates given to higher income decile bands will therefore not provide benefits that will outweigh the cost of the rebate.

38. Most industry initiatives are treated as a flat income transfer with no additionality, but debt relief is expected to have occurred without the scheme, some of which will be deadweight.

4.1. Monetised costs and benefits of each option

39. The costs and benefits in this section are presented in both normal and equity weighted Net Present Values of the scheme. The objective of WHD is to transfer the income from one group in society to another group who require support to heat their home. The cost of the energy bill rebate is spread across all billpayers in Great Britain, who are with an obligated energy supplier (97% of the market[13]).

40. The benefits of WHD are predominantly achieved through giving rebates to low income groups, which is captured using equity weighting. Equity weighting captures the effect of diminishing marginal utility of income, where low income groups would value an additional £140 to be much greater than households in relatively higher income groups (See Annex B).

[13] Ofgem data, based on number of customer accounts by suppliers in December 2019.

41. Equity weighted values are used to reflect the income transfers below:
    - The equity weighted value of reduced bills affecting households in receipt of a WHD rebate (it is assumed 41% of the rebate contributes to the household energy bill)[14]
    - The equity weighted value of increased income achieved from an energy bill rebate (assumed to be 59% of the rebate is used to subsidise income expenditure)
    - The equity weighted value of increased bills affecting all household customers of obligated suppliers

42. The net change to carbon, resource, and air quality costs arising from changes in energy consumption are included as a cost. The policy cost of WHD, which is added to household energy bills should cause households to reduce energy usage marginally, leading to lower consumption and emissions. However, low income households who are in receipt of WHD are expected to increase their consumption at a greater rate, leading to a net increase in emissions.

43. The majority of industry initiatives, not including debt relief, has been captured as an unweighted benefit, with the cost being attributed to bill costs. The benefit captures the transfer of income from billpayers to schemes aimed at supporting fuel poor households and improving long term energy efficiency.

44. In the previous scheme extension, an assumption was made that those receiving debt relief would have likely received debt relief regardless of WHD. However, as individual debt relief is being capped for 2021/22, this suggests more households will be able to benefit from debt relief. To capture this benefit, 50% of debt relief is assumed to go towards households who would not have received this beforehand.

45. The NPVs below present central estimates and are based on who is estimated to receive the WHD rebate. For sensitivity analysis, Monte Carlo analysis has been used to account for how sensitive the NPVs below are to rebate distributions across different randomly selected benefit recipients. (See Annex B)

[14] Labelling effect based on Cash by any other name? Evidence on labelling from the UK Winter Fuel Payment (2011), IFS, https://www.ifs.org.uk/publications/5603

Table 1 Equity weighted Net Present Value for Warm Home Discount Scheme 2021/22 (£m)

	Description	Policy Option Option 1: Extend scheme to 2021/22, with Industry Initiatives changes (£m)	Option 2: Extend scheme to 2021/22 with no changes (£m)
Benefits (£m)	Equity weighted value of rebate (excluding the impact of the £40 million industry initiative)	410	410
	Increase in equity weighted comfort taking	280	280
	Industry initiatives, including debt relief	29	26
	Total benefit	**720**	**720**
Costs (£m)	Equity weighted value of bill increase	-530	-530
	*Administrative costs to Industry	-7	-7
	Administrative costs to Government	-2	-2
	Reduction in utility from lower energy consumption (bill-payers)	-4	-4
	Net change in resource costs**	-68	-68
	Net change in carbon costs**	-20	-20
	Net change in air quality costs**	-6	-6
	Total costs	**-630**	**-630**
	NPV (£m)	**90**	**90**

Figures may not add up due to rounding.
Based on real 2018 prices, and the number of expected recipients in 2021.
*Administrative costs to industry are included within the equity weighted value of bill increase
**Net changes in resource, carbon and air quality refers to the net change after accounting for reduction in energy usage from bill payers, and the increase in usage from recipient.

Table 2 Unweighted Net Present Value for Warm Home Discount Scheme 2021/22 (£m)

	Description	Policy Option Option 1: Extend scheme to 2021/22, with changes to Industry Initiatives (£m)	Option 2: Extend scheme to 2021/22 with no changes (£m)
Benefits (£m)	Value of rebate (excluding the impact of industry initiatives	350	350
	Increase in comfort taking	2	2
	Industry initiatives, including debt relief	29	26
	Total benefit	**390**	**380**
Costs (£m)	Value of bill increase	-180	-180
	*Administrative costs to Industry	-7	-7
	Administrative costs to Government	-2	-2
	Reduction in utility from lower energy consumption (bill-payers)	-130	-130
	Net change in resource costs	-67	-67
	Net change in carbon costs	-20	-20
	Net change in air quality costs	-6	-6
	Total costs	**-410**	**-410**
	NPV (£m)	**-20**	**-30**

Figures may not add up due to rounding.
Based on real 2018 prices, and the number of expected recipients in 2021.
*Administrative costs to industry are included within the value of bill increase
**Net changes in resource, carbon and air quality refers to the net change after accounting for reduction in energy usage from bill payers, and the increase in usage from recipient.

46. Table 1 shows that both options achieve a net present value of approximately £90m. As WHD is an income transfer from higher income groups to lower income groups, the benefits of the scheme are only apparent under equity weighting. Without equity weighting, Table 2 shows an NPV of approximately -£20m for policy option 1 and -£30m for policy option 2.

47. The differences between the options assessed lie within industry initiatives, specifically debt relief. Whilst Option 1 has other changes being made to industry initiatives asides from debt relief, it would be difficult to assess the monetary impact, if any, due to the uncertainty around take up. In contrast, debt relief has consistently had high take up in previous years, increasing in proportion to the debt relief cap. It is therefore likely that, in scheme year 11, the take up of debt relief is more certain.

48. The addition of a per household debt relief cap means the reach of debt relief will likely increase and will go towards more households who would likely not have received the

industry initiative previously. To estimate this impact, approximately 50% of debt relief is attributed as a benefit therefore achieving a £3m greater benefit for the preferred option.

4.2. Non-monetised costs and benefits of each option

Health Impacts

49. The 2010-2015 WHD evaluation[15] 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. The Government draw on evidence from the Health Impacts of domestic energy efficiency measures (HIDEEM[16]) that quantifies the improvement in health outcomes from improving cold homes. These benefits are not quantified in this IA which means the real-world benefits and consequential social value of WHD is likely to be greater than those presented within this impact assessment.

Industry Initiatives impacts

50. The specific benefits of each industry initiative have not been monetised, spending on industry initiatives is not certain, so forecasting these in more depth would likely be difficult. In scheme year 8 (2018/19), industry initiatives were spent on[17]:
    - Energy efficiency measures
    - Energy advice
    - Debt assistance
    - Financial assistance
    - Mobile homes
    - Admin costs and benefit entitlement checks

51. Many of these industry initiatives will have long term benefits attached to them, such as reductions to carbon emissions and bills from both energy efficiency measures and switching advice, as well as improvements to mental health from receiving debt advice and/or relief. Equity benefits from industry initiatives have also not been monetised. Therefore, the full benefits of industry initiatives are not realised in the NPVs monetised above.

4.3. Direct costs to business

52. Government estimates around £7m will be spent by industry on administering the WHD scheme, based on information collected for the previous IA[18]. Government expects that both the cost of administering the scheme and the cost of rebates and industry initiatives will be recouped through levying the cost of WHD to household energy bills, estimated at approximately £14 per dual fuel customer. The government therefore expects the equivalent annual net direct cost to business (EANDCB) to be zero.

4.4. Household impacts

53. The WHD scheme aims to target low income households in or at risk of fuel poverty. As part of the rationale for extending the scheme, this section shows the estimated distribution in rebates for both policy options, showcasing which demographics are likely to benefit from the WHD scheme for scheme year 11. Government expects the rebate distribution to

[15] BEIS (2018), Warm Home Discount evaluation, 2010 to 2015.https://www.gov.uk/government/publications/warm-home-discount-evaluation-2010-to-2015

[16] UCL, HIDEEM, https://www.ucl.ac.uk/energy-models/models/hideem

[17] Ofgem (2019), Warm Home Discount Annual Report, Scheme Year 8 https://www.ofgem.gov.uk/publications-and-updates/warm-home-discount-annual-report-scheme-year-8

[18] BEIS (2018), Warm Home Discount Scheme 2018/19: final stage impact assessment, https://www.gov.uk/government/consultations/warm-home-discount-scheme-2018-to-2019

perform the same for policy options 1 and 2, as no changes are being made to the eligibility criteria or the number of rebates provided in either option.

54. While the tables below will highlight underrepresentation amongst certain demographics, changing the scheme eligibility will likely displace some vulnerable households. Government aims to reform the Warm Home Discount scheme in the future to improve the targeting of households in or at risk of fuel poverty.

55. In 2021/22, Core Group expenditure is estimated to be approximately £159m to support 1.1 million households. Overall Broader Group rebate expenditure is estimated to be around £165m supporting approximately 1.2 million households, with approximately £33m for Industry Initiatives.

56. Government does not currently collect information on who receives the Broader Group WHD rebate. Energy suppliers can also instate alternative eligibility criteria to the mandatory criterion. This means that the estimates used below to predict current Broader Group recipients are based on mandatory criteria only and will be subject to some uncertainty.

Table 3: Recipient by household type (Great Britain)

	Number of recipients (% Split)	Total fuel poor population (% Split) *	Total Population (% Split)
Pensioner	880,000 (38%)	500,000 (17%)	6,600,000 (25%)
Single and working age	320,000 (14%)	430,000 (14%)	3,990,000 (15%)
Single parent with dependent child(ren)	390,000 (17%)	490,000 (16%)	1,900,000 (7%)
Working age couple with dependent child(ren)	250,000 (11%)	870,000 (29%)	5,770,000 (21%)
Working age couple without dependent children	170,000 (7%)	400,000 (13%)	6,490,000 (24%)
Other working age household	310,000 (13%)	320,000 (11%)	2,210,000 (8%)
Of which **			
DLA/PIP recipients	810,000 (35%)	220,000 (7%)	2,150,000 *** (5%)
PCGC recipients	1,130,000 (49%)	220,000 (7%)	1,500,000**** (8%)
Fuel poor	430,000 (19%)		
Total	2,300,000	3,000,000	27,300,000

Figures may not sum due to rounding.
Based on English Housing Survey/Fuel Poverty dataset 2016/17, upscaled from England to GB.
*Fuel poor figures may not align with the fuel poverty statistics, the figures shown measure fuel poverty before WHD.
**Note that DLA/PIP / PCGC / fuel poor recipients are not mutually exclusive and may overlap.
*** Based on benefits survey data, total number of DLA/PIP recipients may be underrepresented compared to administrative data.

**** Based on benefits survey data, number of PCGC recipients is based on the DWP forecasts (DWP, Benefit expenditure and caseload tables 2020, https://www.gov.uk/government/publications/benefit-expenditure-and-caseload-tables-2020)

57. Government estimates that of those receiving the WHD rebate, around 19% are likely to be in fuel poverty. Pensioners are more likely than other household groups to receive the WHD (38%) which is due to safeguarding Pension Credit Guarantee Credit recipients within the Core Group. This is followed by single parents with dependent children (17%). Working age couples without dependent children are the least likely to receive a rebate (7%).

58. Some household characteristics are underrepresented compared to others. Working age couples are underrepresented in comparison to their makeup of fuel poverty, where those with children are only around 11% of the cohort compared to being around 29% of the fuel poor population.

59. Pensioners and those on DLA/PIP are overrepresented, pensioners making up 38% of the cohort with a fuel poverty split of just 17%, and DLA/PIP recipients claiming 35% of the WHD cohort but only 7% of the fuel poor population. This suggests the core group and broader group eligibility criteria favours pensioners and those on disability benefits. However, these groups may be more susceptible to cold environments[19].

Table 4: Number of WHD recipients by tenure (Great Britain)

	Number of recipients (% Split)	Total fuel poor population (% Split)	Total Population (% Split)
Owner occupied	870,000 (37%)	1,420,000 (47%)	17,090,000 (63%)
Private rented	410,000 (18%)	1,020,000 (34%)	5,320,000 (20%)
Local authority	410,000 (18%)	240,000 (8%)	1,840,000 (7%)
Housing association	620,000 (27%)	320,000 (11%)	2,770,000 (10%)
Total recipients	2,300,000	3,000,000	27,300,000

Figures may not sum due to rounding.
Based on English Housing Survey/Fuel Poverty dataset 2016/17, upscaled from England to GB.
*Fuel poor figures may not align with the fuel poverty statistics, as this has been measured before the WHD impact.

60. Table 4 suggests that owner occupied and private rented households are most likely to be fuel poor, but are underrepresented within the WHD cohort. Owner occupied and private rented households make up around 80% of the fuel poor population, but only around half of the WHD cohort. In contrast, local authority and housing association households are significantly overrepresented, making up half the cohort despite only making up 19% of the fuel poor population.

[19] In 2013/14, 51% of cold-related deaths were among people 85 and older, 27% were among people aged between 75 and 84 and 22% were among people under 75. NICE, 2015, Excess winter deaths and illness and the health risks associated with cold homes. https://www.nice.org.uk/guidance/ng6/chapter/context#vulnerable-and-disadvantaged-groups

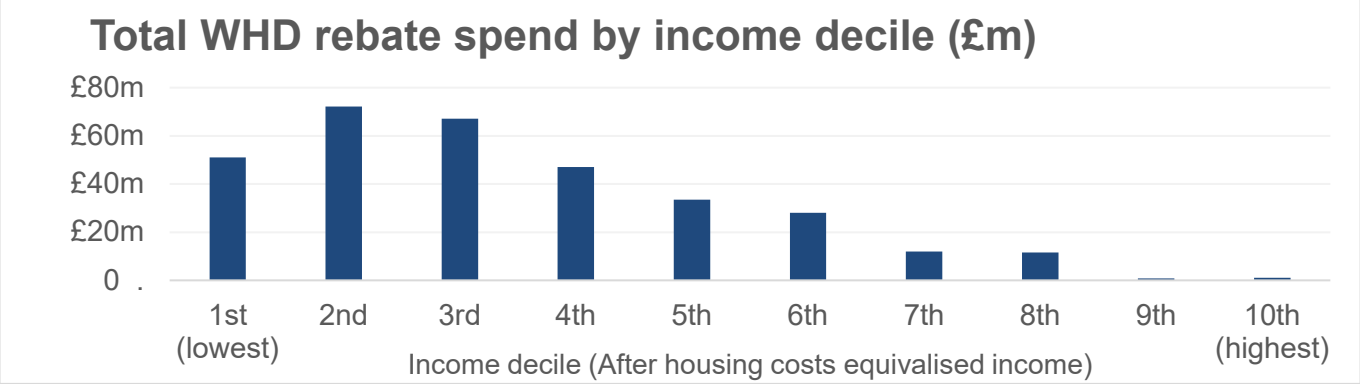
Table 5: Number of WHD recipients by employment status (Great Britain)

	Number of recipients (% Split)	Total fuel poor population (% Split)	Total Population (% Split)
Employed	310,000 (13%)	1,470,000 (49%)	15,850,000 (59%)
Unemployed	120,000 (5%)	210,000 (7%)	660,000 (2%)
Inactive	1,900,000 (82%)	1,320,000 (44%)	10,510,000 (39%)
Total recipients	2,300,000	3,000,000	27,300,000

Figures may not sum due to rounding.
Based on English Housing Survey/Fuel Poverty dataset 2016/17, upscaled from England to GB.
*Fuel poor figures may not align with the fuel poverty statistics, as this has been measured before the WHD impact.

61. Table 5 suggests significant overrepresentation for inactive households, making up around 82% of the WHD cohort, compared to 44% of the fuel poor population. This appears to have caused underrepresentation for employed households, where only around 13% of the WHD cohort were likely to be employed, despite making up the majority (49%) of the fuel poor population.

Figure 3 Total spending on WHD rebates by income decile (£m) (Great Britain) [20]



62. The WHD scheme aims to target those who are low income and have high fuel costs to heat their home. Figure 3 suggests that the WHD should predominantly target low income households, with over 70% of spending expected to go towards households in income deciles 1-4.

Table 6 Change in FPEER band for all households as a result of WHD rebate (Great Britain)

Fuel Poverty Energy Efficiency Rating band	Before WHD	Change after WHD scheme
A	0	3,000

[20] Based on English Housing Survey 2016/17 and Fuel Poverty 2017 dataset. Based on after housing costs equivalised income. This considers the income of a household after housing costs and is equivalised based on household composition.

B	340,000	250,000
C	7,590,000	470,000
D	14,610,000	-590,000
E	3,560,000	-110,000
F	900,000	-1,000
G	270,000	-26,000
Total no. households transitioning to FPEER bands A-C		730,000
Figures may not sum due to rounding Based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017		

63. While the WHD scheme does not directly contribute to domestic energy efficiency, the Fuel Poverty Energy Efficiency Rating (FPEER), can capture the impacts of the WHD on the costs of heating a property, in a similar manner to a SAP rating. Government aims to improve all households to FPEER rating C by 2030[21]. Table 6 shows that under the Warm Home Discount scheme, approximately 730,000 households should move from FPEER D-G to FPEER A-C, with around 470,000 moving to band C. This suggests the WHD is reducing energy bills considerably and can relieve high energy costs for households with low energy efficiency.

4.5. Fuel poverty rates

64. Similar to the section on household impacts, this section discusses the fuel poverty rates of the WHD group, and of those in different demographics to identify which demographics the WHD should ideally be targeting. Fuel poverty rates show the likelihood of fuel poverty for a given demographic, compared to their population size.

Table 7: Proportion of fuel poor WHD recipients by WHD group

Target group	Fuel poverty hit rate
Core Group (Safeguarding PCGC)	15%
Broader Group	22%
Overall	19%
Based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017. Fuel poverty rate may not align with fuel poverty statistics. Figures shown here are before the impact of WHD.	

65. Table 7 above suggests that only 19% of the WHD cohort are fuel poor, and that both the Core Group and Broader Groups are poor indicators of fuel poverty, with 15% and 22% of each cohort being fuel poor. The previous WHD evaluation covering 2010-2015 suggested that both the Core Group and Broader Group eligibility criterion are not indicators of fuel poverty, and targets vulnerabilities instead and recommended reforming eligibility to take into consideration property characteristics.[22] Government's ambition for the future beyond 2022 is to reform the scheme to improve the fuel poverty targeting of the scheme.

[21] DECC, 2015, Cutting the cost of keeping warm. https://www.gov.uk/government/publications/cutting-the-cost-of-keeping-warm

[22] BEIS, Warm Home Discount evaluation, 2010 to 2015.

Table 8: Fuel poverty rate by household type

Household type	Population fuel poverty rate*	Population
Pensioner	7%	6,660,000
Single and working age	11%	3,990,000
Single parent with dependent child(ren)	26%	1,900,000
Working age couple with dependent child(ren)	15%	5,770,000
Working age household without dependent children	6%	6,490,000
Other working age household	14%	2,210,000
Disability Living Allowance or Personal Independence Payment (DLA/PIP) recipient**	10%	2,150,000

Based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017.
*Fuel poverty rate may not align with fuel poverty statistics. Figures shown here are before the impact of WHD.
**DLA/PIP total population is based on survey data and may not match administrative counts.

66. Table 8 shows that the most likely household type to be fuel poor are single parents and working age couples with dependent children at 26% and 15% respectively. Pensioners and those on DLA/PIP in comparison are at the bottom in terms of fuel poverty rate, at 7% and 10% respectively.

Table 9: Fuel poverty rates by tenure

Tenure	Population fuel poverty rate*	Population
Owner occupied	8%	17,090,000
Private rented	19%	5,320,000
Local authority	13%	1,840,000
Housing association	12%	2,770,000

Based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017.
*Fuel poverty rate may not align with fuel poverty statistics. Figures shown here are before the impact of WHD.

67. Table 9 suggests that those in private rented tenures are most likely to be fuel poor at around 19%. Local authority and housing associations have similar fuel poverty rates at 13% and 12% respectively, with owner occupiers being the least likely to be fuel poor at 8%.

Table 10 Fuel poverty rate by employment status

Employment status	Population fuel poverty rate*	Population
Employed	9%	15,850,000
Unemployed	32%	660,000
Inactive	13%	10,510,000

Based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017.
*Fuel poverty rate may not align with fuel poverty statistics. Figures shown here are before the impact of WHD.

68. Table 10 shows that those who are unemployed are most likely to be fuel poor at 32%, falling to 13% for inactive households and 9% for employed households. This suggests that unemployment is a strong indicator of fuel poverty. The broader group aims to target those who are unemployed and low-income using means-tested benefits.

4.6. Assumptions

Dataset

69. The modelling used in this impact assessment to determine which households received the rebate is based on the English Housing Survey (2016/17) and fuel poverty dataset (2017).

70. As this scheme is designed for Great Britain, the results shown in this impact assessment have been upscaled. However, as modelling is based on an England-only survey, the demographic, fuel poverty and rebate distribution may not be representative of the real world for Scotland and Wales.

Fuel poverty indicator

71. The fuel poverty definition used for this impact assessment is Low Income High Cost (LIHC). Under the LIHC indicator, a household is fuel poor if:
    - they have required fuel costs that are above average (the national median level)
    - were they to spend that amount, they would be left with a residual income below the official poverty line

Administration costs

72. Industry and Government admin costs are based on 2016 and 2017 values respectively. While newer figures would be more useful, these costs are unlikely to have changed considerably since the previous scheme extension IA, so should be suitable for the current impact assessment. The consultation will aim to receive more up-to-date information from energy suppliers.

Core Group and Broader Group spending

73. The assumed size of the Core Group is based on DWP forecast projections of Pension Credit Guarantee Credit claimants, which take into account retirement age and attrition. The remaining spending pool after accounting for the size of the Core Group determines the size of the Broader Group in the analysis presented.

Labelling effect

74. Government estimates 41% of the total Warm Home Discount rebate to be spent on improving the thermal comfort of the recipients' home. This is based on research for the Winter Fuel Payment, which showed labelled transfers (e.g: the name "Winter Fuel Payment") led to a higher proportion of the transfer being spent on fuel use, than would be expected for a non-labelled transfer. The WHD evaluation's findings regarding the labelling effect are mixed and do not offer conclusive results so the 41% assumption has been retained. Government will keep the labelling effect under review.

Income elasticity

75. Income elasticity is used to measure the change in energy demand because of a change in income, the income elasticities used are based on a study by Jamasb and Meier (2010)[23]. Income elasticity influences the changes in consumption and therefore resources, emissions

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

and air quality, where billpayers are overall expected to make small changes to their energy consumption and low income recipients of WHD are expected to increase their energy consumption at a greater rate than billpayers. This causes a net increase in energy consumption.

Industry initiatives spending

76. The size of Industry Initiatives is estimated at £33m and the size of debt relief is estimated at £6m. This is based on stakeholder feedback and previous scheme years, where the level of Industry Initiatives spending has increased year on year, both in relation to the cap and in nominal terms. Debt relief spending has also increased in relation to the debt relief cap year on year whilst the debt relief cap has fallen and has remained above £6m per year, which has led to the assumption that debt relief will be maximised in 2021/22.

Monetising the benefits of debt relief

77. Around half of debt relief has been estimated to benefit households in 2021/22, because of the individual debt cap coming into place. In previous scheme extensions, it was assumed that energy suppliers would have provided debt relief to households even without the WHD scheme, such as those with very large debts and unlikely to payoff the debt. This led to all debt relief contributions to be assumed as deadweight. The individual debt relief cap ensures that debt relief will go to more households, who may be struggling with shorter term or smaller debts.

5. Small and Micro Business Impact Assessment

78. Government must ensure small and microbusinesses (businesses with less than 50 staff members) are not disproportionately impacted by any proposed changes.

79. For the single scheme year extension to scheme year 11, the preferred option is to maintain the current supplier obligation threshold and make changes to Industry Initiatives to simplify administration. As suppliers with less than 250,000 customer accounts are not obligated to contribute to the Broader Group or Industry Initiatives, small suppliers are therefore unlikely to be impacted by the changes proposed by the preferred option.

5.1. Rationale for maintaining the supplier obligation threshold

80. Since the 2018/19 WHD scheme extension, the supplier obligation threshold for the Core Group has gradually fallen from 250,000 to 150,000 in scheme year 10. The original aim of the threshold is to avoid creating barriers to entry caused by the high administration costs of the scheme and encourage new entrants in a market where the largest six suppliers had approximately 99% of the market share. Since then, the structure of the retail energy market has changed substantially, with around 27% of customers purchasing energy off a small or medium supplier[24].

81. The supplier obligation threshold can cause some households to miss out. As of Q4 2019, around 97% of the market is covered by participating suppliers.[25] While the majority of customers should be able to apply for the Warm Home Discount, some customers may miss out due to being with an unobligated supplier, evidence suggests those who are over 65 or disabled are least likely to be with a small supplier[26] compared with other demographics.

82. Government also acknowledges the supplier obligation threshold has created an uneven playing field for suppliers, as small unobligated suppliers do not need to cover the cost of the policy and can therefore price more competitively, reducing their tariff by approximately £14/year less per dual fuel customer.

83. Under the scheme extension, the supplier threshold will remain at 150,000 customer accounts. In the 2018/19 scheme extension impact assessment, Government estimated that to distribute rebates for only the Core Group, a newly obligated supplier would incur an annual cost of around £4,000/year[27].

84. Reducing the supplier obligation threshold would risk creating a barrier to entry since a new supplier may incur disproportionate administrative burden of setting up and administering the WHD rebate. This would likely be exacerbated under the single-year extension, due to shorter timescales for setting up systems for delivery and adjusting tariffs to recoup the cost of WHD.

85. Government intends to reform the WHD scheme beyond 2022 and will review the supplier obligation threshold in the future.

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[24] Ofgem data portal, Electricity supply market shares by company: Domestic (GB). Q1 2020. https://www.ofgem.gov.uk/data-portal/retail-market-indicators#thumbchart-c23042756505310535-n95435

[25] Based on the number of obligated customer accounts in December 2019, data provided by Ofgem.

[26] Ofgem (2020), Consumer Survey 2019 Data Tables, Table 628. https://www.ofgem.gov.uk/publications-and-updates/consumer-survey-2019. 14% of 65+ respondents were with a small supplier, compared with 23% of respondents aged 16-34. 18% of respondents with a disability were with a small supplier, compared to 19% of those without a disability.

[27] BEIS, Warm Home Discount Scheme 2018/19: Final stage impact assessment, Table A3.2: Costs to industry; Estimated costs per newly obligated supplier, Paragraph 164, https://www.gov.uk/government/consultations/warm-home-discount-scheme-2018-to-2019

6. Equalities Impact Assessment

86. This section provides an analysis of how different groups of people will be affected by the policy, in line with the government's guidance on the Equality Duty[28]. This guidance suggests the distributional impact of policies should be evaluated with regards to their impact on social groups with certain characteristics, namely:

    - age
    - gender reassignment
    - being married or in a civil partnership
    - being pregnant or on maternity leave
    - disability
    - race including colour, nationality, ethnic or national origin
    - religion or belief
    - sex
    - sexual orientation

87. The government has considered whether any of the above groups may be adversely or positively impacted by this policy in different ways, this has been qualitatively and quantitatively assessed below.

88. Government recognises that under the Broader Group, some households may be indirectly disadvantaged due to it's first-come first serve nature where households must also actively apply. For instance, those with limited access to the internet may find it more difficult to apply quickly for the Broader Group. While applications can be done through other means, information about the Broader Group may also be more difficult to access. Interviewees from the 2010-2015 Warm Home Discount evaluation typically found the scheme through word of mouth and suppliers were found to limit exposure of the Broader Group.

89. Equity analysis of rebate distribution by protected characteristic is presented below but is limited to those characteristics captured by the English Housing Survey 2016/17 and Fuel Poverty Analytical Dataset 2017. The government will explore ways to gather more information in the future to analyse equalities impacts, such as who receives the Broader Group rebate (see Section 7.1 on monitoring and evaluation for further detail). The equity analysis compares recipients from protected characteristics against both their respective fuel poor and overall population.

Table 11: Distribution of Gender of household representative (HRP) across WHD recipients and population

Gender (HRP)	Recipient distribution (% Split)	Total fuel poor population (% Split)	Overall Population (% Split)
Male	910,000 (39%)	1,580,000 (52%)	15,750,000 (58%)
Female	1,400,000 (61%)	1,450,000 (48%)	11,520,000 (42%)
Total	2,300,000	3,030,000	27,300,000
Note that figures have been uplifted from England to GB figures and may not accurately reflect demographics in Scotland or Wales. Figures may not sum due to rounding.			

[28] https://www.gov.uk/guidance/equality-act-2010-guidance

90. Table 11 suggests that females are overrepresented within our WHD recipient sample. Comparing their fuel poverty splits against their overall population, this suggests that females are more likely to be fuel poor. However, as these results only analyse the household representative, this may make it more difficult to suggest there is overrepresentation amongst females.

Table 12: Distribution of households with a disability across WHD recipients and population

Household with a disability	Recipient distribution (% Split)	Total fuel poor population (% Split)	Overall Population (% Split)
Yes	1,020,000 (44%)	350,000 (12%)	3,400,000 (12%)
No	1,300,000 (56%)	2,680,000 (88%)	23,870,000 (88%)
Total	2,300,000	3,030,000	27,300,000
Households include those registered as disabled, report a visual impairment, or receive either Disability Living Allowance, Personal Independence Payment or Severe Disablement Allowance. This differs to the figures in Table 3 which only highlights those on Disability Living Allowance and Personal Independence Payments. Figures based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017. Note that figures have been uplifted from England to GB figures and may not accurately reflect demographics in Scotland or Wales Figures may not sum due to rounding.			

91. Table 12 suggests that those who are disabled are significantly overrepresented in comparison to their fuel poor and overall population splits. Households with a disability are unlikely to be fuel poor but make up a large proportion of the WHD cohort. This is likely a result of the broader group mandatory criteria focussing specifically on households with a disabled member.

Table 13: Distribution of household ethnicity make up across WHD recipients and population

Household ethnicity	Recipient distribution (% Split)	Total fuel poor population (% Split)	Overall Population (% Split)
White single	1,480,000 (64%)	1,190,000 (39%)	10,170,000 (37%)
Ethnic minority single	244,000 (11%)	256,000 (8%)	1,440,000 (5%)
Mixed couple*	15,000 (1%)	74,000 (2%)	674,000 (2%)
Ethnic minority couple	76,000 (3%)	305,000 (10%)	1,315,000 (5%)
White couple	511,000 (22%)	1,210,000 (40%)	13,670,000 (50%)
Total	2,300,000	3,030,000	27,300,000
*Note that a mixed couple refers to a white & ethnic minority couple. Figures based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017. Figures may not sum due to rounding.			

92. Table 13 suggests little over or underrepresentation based on the ethnicity of the household but exemplifies that couples are underrepresented in the WHD cohort, as shown in Table 3. Both white and ethnic minorities who are single are significantly overrepresented against the fuel poor or overall population. Whereas both white, mixed and ethnic minority couples are underrepresented within the WHD cohort by around half the fuel poor and overall population.

Table 14: Distribution of household representative's religious faith or belief across WHD recipients and population

Household representative's religious faith or belief	Recipient distribution (% Split)	Total fuel poor population (% Split)	Overall Population (% Split)
Christian (including CoE, Catholic, Protestant	661,000 (63%)	888,000 (62%)	822,000 (54%)
Muslim	54,000 (5%)	133,000 (9%)	121,000 (8%)
Any other religion	44,000 (4%)	89,000 (6%)	120,000 (8%)
No religious faith or belief	299,000 (28%)	326,000 (23%)	469,000 (31%)
Total*	1,060,000	1,435,000	1,533,000

*Note that not all household representatives answered this question. This question only includes those who did answer, and therefore may not be representative of England.
Note that figures have been uplifted from England to GB figures and may not accurately reflect demographics in Scotland or Wales Figures based on English Housing Survey 2016/17 and Fuel Poverty dataset 2017.
Figures may not sum due to rounding.

93. Table 14 suggests that compared to the fuel poor population, there is an overrepresentation of those without a religious faith or belief, and an underrepresentation of those who are Muslim. This bias remains apparent when compared to the overall population. Similar to Table 11 however, as this only analyses the household representative's responses, it may be difficult to infer any over or underrepresentation.

94. Overall, Government does not expect the WHD scheme to discriminate based on protected characteristics and therefore does not contribute to any pre-existing discrimination structure, with positive impacts to households with a disability or single ethnic minority households in particular. However, while the scheme does not discriminate directly, there may be some indirect discrimination amongst some households as a result of the first-come first-serve nature of the scheme, and underrepresentation amongst couples overall may disadvantage ethnic minority couples.

7. Monitoring and Evaluation

7.1. Previous Evaluation

95. An evaluation of WHD was published in 2018, covering scheme delivery between 2010 and 2015[29]. The evaluation conducted both qualitative research with recipients and modelled impact analysis covering energy expenditure and the indoor environment. Main findings were:
    - The rebate typically alleviated households' electricity usage for several months, releasing cash to be spent elsewhere (e.g: gas use for heating or other general expenditure). This improved mental wellbeing and provided 'peace of mind' in relation to keeping up with bills.
    - Eligibility criteria had likely influenced the impacts of the scheme.
        - Core Group eligibility was not found to be a strong indicator of households living in a cold home, and modelling showed the WHD targeted pensioners rather than those in fuel poverty.
        - Energy suppliers used the receipt of DWP means-testing as a proxy for identifying Broader Group eligibility, which raised questions about whether those in fuel poverty were sufficiently targeted, rather than those with broader vulnerabilities.
        - Customers using the rebate to increase the temperature of their home was associated with benefits to cardio-respiratory health. But this was limited by WHD eligible households tending to live in energy efficient dwellings.
    - Interviews and modelling suggested the WHD scheme led to a small increase in energy spend by recipients.

96. The evaluation suggests the WHD is providing health benefits for those in cold homes and 'peace of mind', but also gives insight on the flaws of the WHD scheme, in particular, Government should aim to improve the targeting of those in fuel poor households. Therefore, supporting both the continuation of WHD and intentions for reform in the future.

97. BEIS intends to explore methods to address the evidence gaps for WHD, focussing on the demographics of who receives the rebate under the Broader Group, which will be used to better inform the analysis on both the extension and reform. The improvements in monitoring of participant demographics, see section 7.2 below, are expected to provide data which largely address the evidence gaps. Once available the monitoring data will be reviewed to identify any additional evaluation needs.

7.2. Monitoring data

98. The current monitoring arrangements for WHD will continue, allowing BEIS to identify where the scheme is being delivered. Current monitoring data includes updates from Ofgem on progress of the WHD scheme such as:
    - Which suppliers are eligible for the Core Group and Broader Group
    - Schemes approved for Industry Initiatives
    - Each suppliers' additional eligibility criteria for the Broader Group and number of Core Group and Broader Group recipients.
    - Reconciliation of Core Group spend for each supplier
    - Supplier of Last Resort processes which may affect the WHD scheme delivery.

[29] BEIS (2018), Warm Home Discount Evaluation 2010 to 2015, https://www.gov.uk/government/publications/warm-home-discount-evaluation-2010-to-2015

99. To reflect the evidence gaps identified in the previous evaluation, the monitoring regime will be extended to gather household demographic information from DWP and information on the eligibility criteria used to apply for the Broader Group rebate from Ofgem. The delivery of WHD rebates requires energy companies to undertake data matching to confirm eligibility for the Core Group and most supplier's data match with DWP to verify a sample of Broader Group recipients. Energy companies therefore hold additional information on recipients that is not currently being shared with BEIS. Once verifications are complete, the new monitoring regime will ask DWP and Ofgem to share information on the eligibility reasons for their WHD delivery.

100. The government will use the new Broader Group information to update analysis in future impact assessments and assessments of scheme design.

7.3. Evaluation data

101. The primary objectives of the WHD are to:
- Lower the depth of fuel poverty through providing energy bill support to low income and vulnerable households who are at risk of or in fuel poverty.
- Alleviate distributional inequity, by lowering the disproportionate impact of the cost of energy on low income vulnerable households.

102. The previous evaluation of the scheme has comprehensively answered the majority of these and given the scheme has changed little since that time, it is not suggested that a full evaluation is repeated.

103. The proposed evaluation seeks to address the uncertainty around the extent to which the core and broader eligibility groups are reaching those most at risk of or in fuel poverty, which was highlighted by the previous evaluation. BEIS are in discussion with DWP and Ofgem regarding access to detailed demographic information on a random sample of WHD recipients. This information will allow for an assessment of the demographics and fuel poverty status of the recipients in each group. Differences in the eligibility assessment process between energy companies will be compared to identify which processes are most effectively targeting the desired target group.

104. The data that DWP and Ofgem can provide on WHD recipients includes information on who is applying for the Broader Group rebate based on mandatory or additional criteria usage. This will be used to evaluate whether actual Broader Group recipients are likely to be low income and vulnerable and will be used to inform future reforms of the WHD scheme.

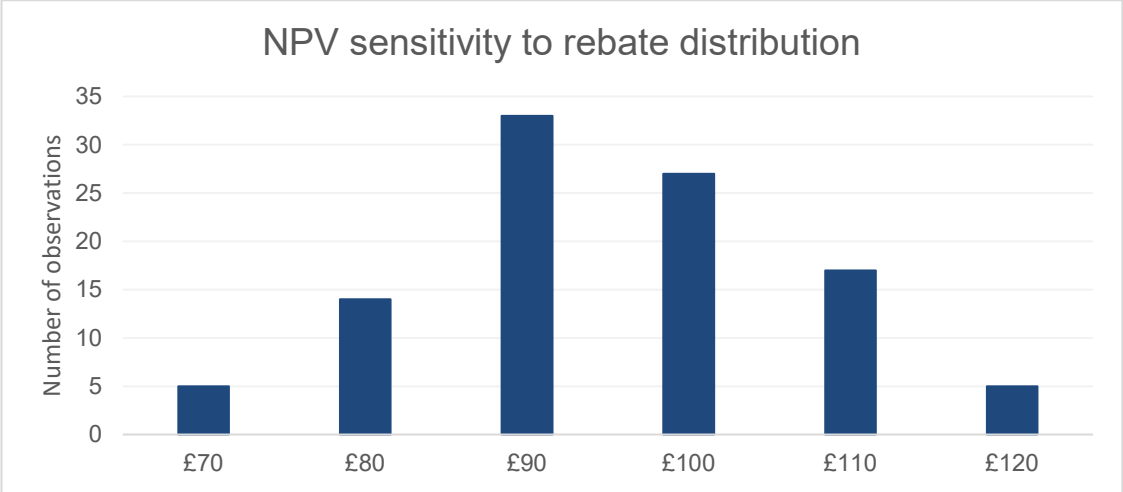
8. Annex

8.1. Annex A: Sensitivity of NPV to rebate distribution

105. Central NPV estimates suggest the equity weighted social value of the scheme is £90m. This is based on modelled take-up of the scheme by different households on means tested benefits. Monte Carlo analysis was performed to test the sensitivity of the central NPV estimates to different income groups' likelihood of receiving the Warm Home Discount rebate. Higher income groups in receipt of rebates reduce the social benefit of the scheme and vice versa for lower income groups. This is done by repeatedly selecting eligible households at random (i.e. those that meet Core Group eligibility criteria or the means-tested benefits that would allow a customer to be eligible for the Broader Group).

106. The sensitivity analysis in Figure 4 is based on around 100 iterations and reveals the social equity weighted NPV is likely to fall within £80m (low) to £120m (high) based on a 90% confidence interval.

Figure 4: Estimated sensitivity of NPV to rebate distribution



8.2. Annex B: Equity Weighting

107. The Warm Home Discount scheme is redistributive, transferring income from all billpayers (those from participating suppliers) to customers who are at risk or in fuel poverty. 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.

108. The equity weighting used below is based on the guidance published in the Green Book.

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

Table 15: Equity weight for each income decile

Income decile (where 1 is lowest)	Decile Median of After Housing Costs Income Equivalised (£)	Equity weight
1	6,280	5.3
2	11,310	2.5
3	14,730	1.8
4	17,890	1.4
5	20,970	1.1
6	24,460	0.9
7	28,620	0.7
8	33,420	0.6
9	40,830	0.5
10	59,400	0.3

Where an income decile of 1 is the lowest, and 10 is the greatest.
Decile median and equity weights have been rounded.
Figures based off the English Housing Survey 2016/17.

Calculated in line with:
HM Treasury, The Green Book (2018), 'Distributional analysis by income group', Annex A3. Sub-national and Distributional Analysis, Page 78-81.
https://www.gov.uk/government/publications/the-green-book-appraisal-and-evaluation-in-central-governent