Department for
Energy Security
& Net Zero

Interim Evaluation of Domestic Energy Affordability Support Schemes in Great Britain

Annex B: Programme Theories of Change

April 2025

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Annex E1 Theory of Change

1.1 Overview of the Theory of Change

This Annex presents the detailed Theory of Change (ToC) for the portfolio of energy affordability schemes, as well as ToCs for household groups of particular interest and individual energy affordability schemes. It first describes the process through which the ToCs were developed, then presents the portfolio-level ToC with (a) a description of the contribution story underpinning the ToC, followed by (b) discussion, based upon the findings of the outcome evaluation presented in chapter 6 of this report, around its validity. The remainder of the document presents the scheme level and household group level ToCs, highlighting differences to the portfolio level ToC and changes made based on the evidence gathered during the final phase of the outcome evaluation.

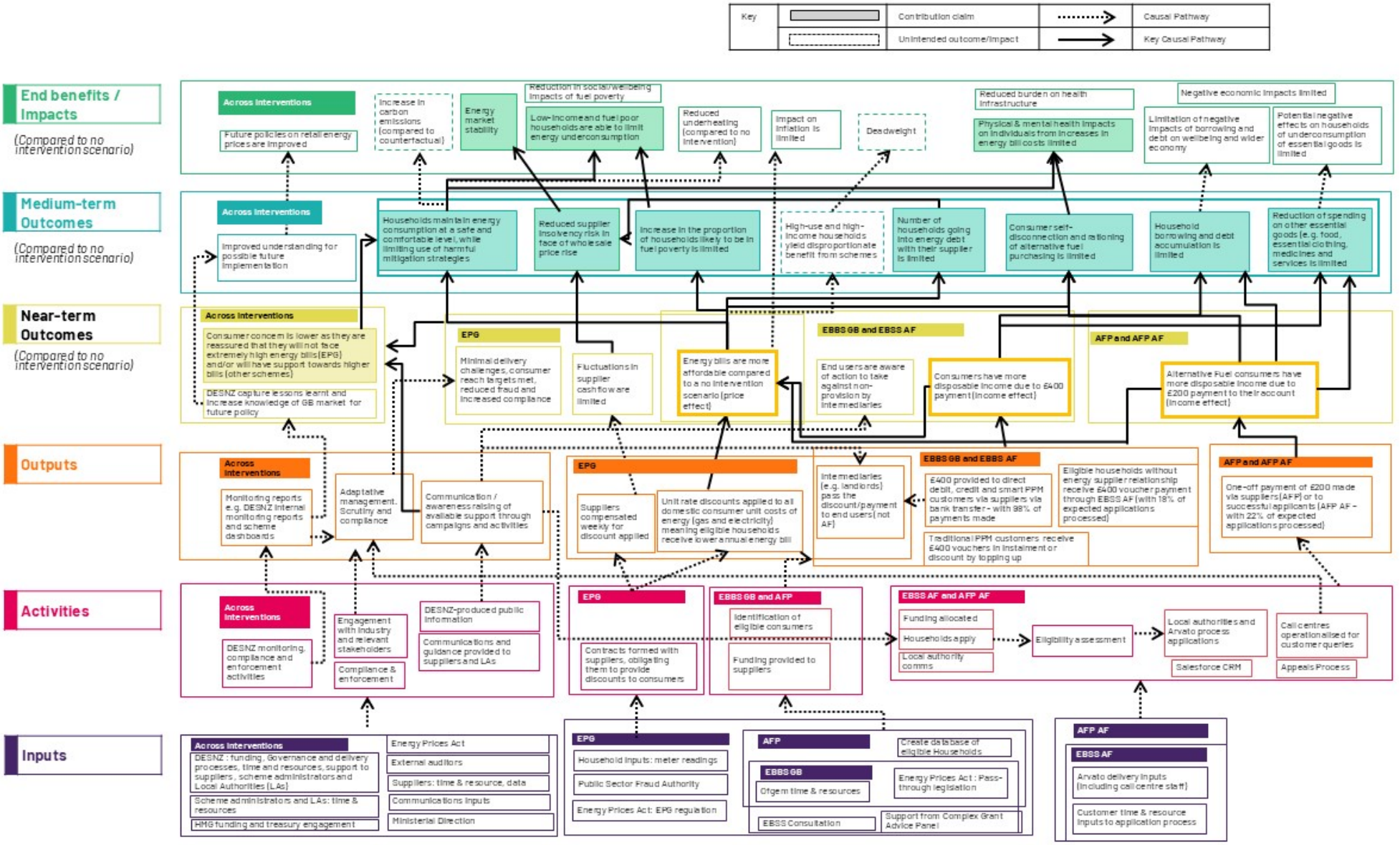
1.1.1 Methodology for developing the ToCs

As set out in chapter 5 of the main report, the evaluation team used a phased approach to develop the overarching ToC and scheme level ToCs for each energy affordability scheme. This process involved first developing preliminary ToCs, which was informed by several scoping activities, including a comprehensive review of programme (including scheme level) documentation, an analysis of wider literature pertaining to the schemes' launch context, and twelve in-depth scoping interviews with key stakeholders from DESNZ who were involved in the design and delivery of the energy affordability schemes. This initial phase provided a foundational understanding of the schemes' rationale, anticipated outcomes and impacts, and facilitated an exploration of the underlying theory and assumptions driving the schemes' development.

Following the initial drafting of the ToC, the next phase involved the evaluation team facilitating a series of workshops with members of the DESNZ team to collaboratively refine the ToCs. During these workshops, participants engaged in an examination of each scheme, discussing the inputs, activities, outputs, outcomes, and impacts. Additionally, they analysed and articulated the fundamental assumptions underpinning the relationships between these key elements. A further aspect of these workshops involved in-depth discussions to determine the key outcomes for each scheme and how these outcomes related to different household groups. Following stage one of the evaluation, each of the ToCs were revisited and revised to reflect the emerging evidence

The overarching ToC overleaf represents the underlying theories and assumptions of the energy affordability schemes. Interlocking boxes also highlight the overlap and interconnectedness of some of the assumptions across schemes.

Figure 1: Overarching Theory of Change



Overarching ToC contribution story

As set out in the overarching ToC, there was an overall causal assumption that the combination of: (1) the Energy Price Guarantee (EPG) discount, and (2) Energy Bills Support Scheme (EBSS GB) (3) Alternative Fuel Payments (AFP) and (4) Energy Bills Support Scheme Alternative Fund (EBSS AF) and Alternative Fuel Payments Alternative Fund (AFP AF) **[scheme outputs]** would lead to:

(1) Lower consumer concern as they are reassured that they will not face extremely high energy bills (EPG) and/or will have support towards higher bills (other schemes)

(2) Energy bills being more affordable

(3) Consumers having more disposable income due to lump sum payments received

(4) Reduced supplier insolvency risk in face of wholesale price rises

(5) Households maintaining energy consumption at a safe and comfortable level, whilst limiting use of harmful mitigation strategies

(6) Limited increase in the proportion of households experiencing energy burden and likely to be in fuel poverty

(7) Limited number of households going into energy debt with their supplier

(8) Limited consumer self-disconnection and rationing of alternative fuel purchasing

(9) Limited household borrowing

(10) Limited reduction of spending on other essential goods (e.g. food, essential clothing, medicines and services)

(11) Improved understanding of GB retail energy market for possible future policy implementation **[scheme outcomes in the near and medium term]**,

and that these would lead, in the longer-term, to

(1) Limited physical & mental health impacts on individuals from increase in energy bill costs leading to reduced burden on health infrastructure

(2) Limited reduction in economic productivity loss and harm to wellbeing associated with high levels of household borrowing and potential negative effects on households of underconsumption of essential goods

(3) An increase in carbon emissions

(4) Improved future policies on retail energy prices

(5) Limited impact on inflation,

(6) Deadweight due to high-use and high-income households receiving support through the energy affordability schemes **[impacts]**.

These results were all to be understood in relation to a 'counterfactual' situation – i.e. what would have happened in the absence of the schemes.

The achievement of these outputs and outcomes was dependent upon several key assumptions pertaining to:

- **Scheme delivery effectiveness and reach** – that the schemes would reach all households in GB through (i) the universal design of the EPG and EBSS schemes, (ii) the different means available for distributing the support (adapted to the needs of different eligible households) – and the accessibility (i.e. effectiveness) of these distribution methods, (iii) the effectiveness of the different delivery partnerships set up to distribute the support, and (iv) the effectiveness of communications and awareness-raising in order to alert eligible households to the of support and the application process.

  It was also assumed that: (v) any scheme delivery challenges would not disproportionately affect / reduce access to the schemes / exacerbate existing risks and vulnerabilities for the most vulnerable households (e.g. those at greatest risk of experiencing higher energy burden, with disabilities or existing illnesses or with lower household incomes).
- **Household motivation and ability to access the support** – that (1) households who need to take independent action to access the support (i.e. redeem their vouchers or make an application) would be sufficiently motivated to do so, and (2) intermediaries responsible for passing the payment on to households would do so, and in a timely manner.
- **Household concerns** – that the schemes would contribute to reducing the level of concern households experienced in response to the rise in energy costs in winter 2022. It was expected that they would do this by (1) reassuring households that they would receive support with energy bills, and (2) by providing sufficient support to enable households to actually afford their energy.
- **Household energy consumption behaviours** – that (1) the EPG support (or AF schemes for those who do not benefit from EPG) would make energy more affordable for households, allowing them to heat their home to a safe and comfortable level, and (2) where this was not the case (i.e. where EPG support was not available or not sufficient) households would utilise the EBSS support (or EBSS AF) to pay towards energy (to prevent underconsumption).
- **The linkages between energy consumption, concern over being able to pay for bills, and health and well-being** – that (1) reduced concern about being able to pay for bills can help avoid negative effects on mental health, and (2) reduction of underheating of the home can avoid negative effects on physical health (and therefore by mitigating concern and underheating, health would improve compared to the counterfactual "no intervention" scenario).

- **The linkages between energy debt in homes and energy supplier stability in GB** – that suppliers in the energy supply market in GB, were at risk of insolvency should levels of energy debt in households rise suddenly due to households not being able to pay their energy bills, and that reduced consumer debt would lead to strengthened financial viability of suppliers. The energy affordability schemes were expected to help limit the risk of supplier insolvency to the energy market in the intervention period principally by limiting energy debt.

Additionally, there were contextual factors and risks that were anticipated to determine the scale of outcomes and benefits associated with the energy affordability schemes (and the extent to which unanticipated negative events would not take place):

- That non-energy consumption was not going to be substantially affected by external factors such as inflationary pressures from non-energy sources, such as food price increases.
- Energy prices would not increase significantly beyond what was originally expected during the period of the intervention.
- Disposable income would not decrease due to external factors (such as unemployment, impacts of inflation, etc) which would have lowered a household's disposable income.
- Households would choose to increase consumption in response to increased disposable income.
- Prior to energy price increases households had consumed a safe and appropriate amount of energy.

1.2 The validity of the ToC

Following the analysis set out in chapters 7 and 8 of the main report, the overarching ToC is largely valid:

- The schemes helped prevent energy underconsumption:
    - The evaluation findings indicate that the schemes helped support around at least 2.3 million households to maintain their energy consumption to a safe and comfortable level, while limiting their use of harmful mitigation strategies.
    - Other factors, however, also contributed to households making substantial changes to their energy consumption and other behaviours during winter 2022/23, including wider concern about energy bills.
    - Price elasticity modelling highlights that the EPG and EBSS GB schemes together induced a 28% increase in energy usage for the lowest income decile, compared to a no intervention scenario.
- The evidence available aligns with the hypothesis that the schemes contributed to limiting the number of households that would not be able to pay their energy bills and

who went into energy debt with their supplier (therefore limiting energy burden experienced by households).

  - Overall, 60% of GB households reported having to reduce their spending due to higher energy costs. This is representative of around 17 million households.
  - Additionally, 15% of GB households who took on household debt said they would have needed to do so to a 'considerably greater extent' without the energy affordability schemes in place in winter 2022/23. This equates to approximately 4 million households.[1]

- The evidence indicates that the energy affordability schemes helped limit disconnections, supporting households to afford their energy usage in many cases during winter 2022/23, though the evidence here is slightly weaker.
  - 57% of GB households on PPMs (Smart and Traditional) said they would have been unable to afford to pay their energy bills in winter 2022/23 without support of the Government's energy affordability schemes.
- The evidence available aligns with the hypothesis that the energy affordability schemes contributed to lowering households' level of concern about energy bills and household finances. Households' perceptions about the affordability of energy bills were a key factor influencing the extent to which households worry about them. 28% of GB households reported they would not have been able to afford to pay their energy bills in winter 2022/23 without the support of the government's energy affordability schemes. This represents 8 million households[2].
- The evidence available aligns with the hypothesis that the energy affordability schemes contributed to limiting the negative mental and physical health impacts (including instances of cold-related illnesses and mould) associated with rising energy bill costs. 60% of GB households, would have reduced their energy use to a considerably greater extent in winter 2022/23 without the government's support. This is representative of approximately 17 million households[3].
- The evidence available suggests the energy affordability schemes contributed to limiting factors that impact energy suppliers' insolvency risks. However the strength of evidence on this was more limited compared to other outcomes:
  - Interviews with suppliers indicated that schemes helped reduce supplier insolvency risk by decreasing the number of customers reducing their energy consumption, disconnecting from the energy supply or not paying their bills.

[1] To extrapolate Knowledge Panel survey statistics to the number of households that the figure may represent, the KP weighted percentages were multiplied by 28.4 million which is the approximate number of UK households in 2023. These households' statistics are intended as a estimation rather than an definite number.
[2] To extrapolate Knowledge Panel survey statistics to the number of households that the figure may represent, the KP weighted percentages were multiplied by 28.4 million which is the approximate number of UK households in 2023. These households' statistics are intended as an estimation rather than a definite number.
[3] To extrapolate Knowledge Panel survey statistics to the number of households that the figure may represent, the KP weighted percentages were multiplied by 28.4 million which is the approximate number of UK households in 2023. These households' statistics are intended as an estimation rather than a definite number.

- Quantitative evidence shows the schemes helped limit levels of customer debt, contributing to limiting risks of insolvencies.
- 76% of GB households that said they did not go into debt with an energy supplier in winter 2022/23, 20% reported it was "fairly likely" and 6% reported it was "very likely" they would have gone into debt with their energy supplier without Government financial support.

Validity of the assumptions around scheme delivery, reach and household ability to access the support

The schemes achieved good coverage of GB households, except for application-based schemes. The delivery of application-based schemes (EBSS AF, AFP AF) was less effective than those delivered automatically, largely due to them being hard to access for some groups and low awareness. Whilst the use of national systems to support local authorities (such as a national salesforce system and customer contact helpline) generally reduced burdens on local authorities and drove more consistent delivery, there were also issues with the application processes, which likely led to lower application rates among eligible households. The delivery challenges identified did disproportionately affect vulnerable households - voucher-based variants of the schemes, primarily those targeted households on traditional PPM, saw lower reach compared to the main schemes – this was attributed to some difficulties in sending physical vouchers, and financial intermediaries sometimes not communicating the process for voucher redemption to tenants.

Validity of assumptions around household concerns

There is evidence of that the energy affordability schemes contributed to lowering households' levels of concern about energy bills costs and household finances. Evidence from Ipsos' KnowledgePanel survey shows that 28% of all respondents reported they would not have been able to afford to pay their energy bills in winter 2022/23 without the support of the government's energy affordability schemes. Moreover, there was a notable decline in the proportion of households worried about energy bills between 2023 and 2024, coinciding with the implementation of these schemes. This decline in concerns was also reported in household interviews. Evidence of the schemes' contribution to lowering concerns is however limited and relies on a correlation between the timing of the schemes and the observed reduction in concern levels.

Validity of assumptions around energy consumption behaviour

Modelling work undertaken suggests that the schemes had a significant effect on households' energy consumption. The modelling highlights that the support provided through the EPG and EBSS induced a more-than 20% increase in energy usage amongst households on the three lowest income deciles. Further disaggregation of these results, using household microdata, is required to model the consumption behaviour of household groups of particular interest.

Validity of assumptions around linkages between energy consumption, concern over being able to pay for bills, and health and well-being

There was evidence that EPG and EBSS contributed to households heating their homes to a safe and comfortable level, and separately, that the support provided reduced concern over being able to pay energy bills.

The evaluation has not been able to draw robust conclusions on the linkages between safer / more comfortable energy consumption, or reduced concern over being able to pay for bills resulting from the schemes, and improved health and welfare outcomes, although it is possible that health and welfare outcomes would have been worse without the scheme.

Validity of assumptions around linkages between energy debt in households, and energy supplier stability in the GB domestic energy market.

These assumptions could not be tested directly in this study, given the lack of disaggregated data linking supplier's financial health and the proportion/level of consumer debt 'held' by each supplier.

Economic impacts

Economic impacts of the schemes, such as effects on productivity and any inflationary effects of the schemes, were out of scope for the present study. A separate economic impact evaluation has been commissioned by DESNZ which explores the economic impacts of the schemes.

1.3 The resulting contribution story

Support provided to GB households through the energy affordability schemes contributed to limiting higher energy burden and underconsumption of energy below safe and comfortable levels.

This is because the scheme delivery mechanisms were – on the whole – effective, and because households used the support provided towards their energy bills. The evaluation evidenced a number of key causal pathways hypothesised in the Theory of Change. Firstly, by delivering the energy support schemes, household energy bills were reduced and/or financial support made energy bills more affordable. Secondly, communication and awareness raising alongside delivery of the schemes helped to inform households about the effects of the schemes on their energy bills, reassuring them that they will not face high bills. In turn, this contributed to limiting the number of households struggling to pay their energy bills and going into energy debt with their supplier, and limit self- disconnection (and therefore reduce the risk of supplier insolvency), as well as limit the underconsumption of both energy and other essential goods and services. Other mechanisms were less well evidenced, such as the indirect effects of scheme support provided on mental & physical health, and whether carbon emissions increased compared to a no-intervention scenario.

Across all interventions, the effectiveness of scheme communications in generating awareness alongside providing financial support influenced the extent to which the schemes contributed to limiting underconsumption of energy or non-energy goods and services. Whilst awareness of the energy affordability scheme details generally varied across households, those eligible for

automatic schemes were supported regardless of their awareness and understanding. Low rates of awareness did pose a barrier to households accessing the alternative funding energy affordability schemes and receiving support via these application-based mechanisms (as well as voucher-based variants of EBSS). For EPG, low awareness and understanding of the scheme may have limited the extent to which it prevented harmful mitigation behaviour.

Some groups did not consistently benefit from the schemes indicating that for some groups, the key causal pathways hypothesised worked less well. The delivery of application-based schemes was less effective than those delivered automatically, largely due to them being hard to access for some groups and low awareness. Awareness of the application-based schemes was especially low amongst vulnerable populations including those with lower digital/English literacy or access (such as those in care homes and people with a disability affecting their digital access or literacy) and those in hard-to-reach groups (such as those in temporary accommodation or those in remote locations).

Whilst the use of national systems to support local authorities (such as a national salesforce system and customer contact helpline) generally reduced burdens on local authorities and drove more consistent delivery, there were also issues with the application processes, which likely led to lower application rates among eligible households. There were also issues with some applications from eligible households to be rejected[4] – denying or delaying support to these households. There was also correlation between those who application-based schemes did not always reach and those most in need of energy bill support, including vulnerable groups.

Whilst the study did not attempt to estimate the precise £ amount of deadweight, there was substantial evidence that some households did not require the support. Notably, some groups were more likely to report being able to afford to heat their homes without government support, suggesting that they needed government financial support less. These groups included **households on fixed energy term tariffs, homeowners, direct debit customers, individuals not receiving benefits**, and **those spending between 0-10% of their income on energy**. Notably, households on fixed energy term tariffs and those spending between 0-10% of their income on energy were also more likely to maintain comfortable heating levels without resorting to harmful mitigation strategies such as cutting spending on essentials or increasing borrowing. Households that were older and living in their own home were less likely to reduce energy use, cut back on spending on necessities and other goods, or borrow more without the government's support[5]. The KnowledgePanel survey also found that 67% of households could afford energy bills without support, with **older** respondents, **higher-income** households (earning between £52,000 and £99,999), and **households using alternative fuels** being more likely to afford their energy bills without government support. This suggests these groups needed less support compared to younger households, lower-income households, and those relying on gas/central heating.

[4] For instance, eligible applicants using a power of attorney were often rejected.
[5] According to the Latent Class Analysis (see Annex C)

1.4 Household groups of particular interest

Household groups of particular interest have been identified to analyse how the evidence differs for these specific groups. These include:

- Low-income households: Low-income households were identified as a group who would experience greater energy consumption costs most strongly, and as a result be more likely to apply mitigation techniques to offset this, such as underheating their home, reducing spending on other essentials or disconnecting from their energy meter. Low-income households were expected to gain a greater benefit as share of their total household expenditure relative to those with higher incomes from the energy affordability schemes. The modelling work undertaken also suggested that the EPG and EBBS GB schemes provided the greatest utility and effect on energy consumption to low-income households, compared to a no-intervention scenario. At the same time, survey evidence shows that low-income households were more likely to report that they had applied potentially harmful behaviours in response to the energy price increase (i.e. reduce their energy use, reduce spending and saving behaviours, or borrow without government support) in winter 2022/23, Further, they also reported to be more likely to reduce energy use, cut back on spending on necessities, and borrow without government support.
- PPM customers: PPM customers not on smart meter were identified as a group that were eligible for the schemes but experienced issues in accessing the support more frequently, compared to smart PPM households and those not on prepayment meters. This is because receiving the grant was not automatic for households on traditional PPM and relied firstly on awareness of the scheme and how to access the vouchers; and secondly; an individual from each household would need to redeem a voucher in order to receive the payment. The evaluation found that PPM customers were especially reliant on the schemes as they were statistically more likely to respond that they would not have been able to heat their home without the scheme support, with 57% of GB households who were on PPMs (Smart and Traditional) said they would have been unable to afford to pay their energy bills in winter 2022/23 without the support. Whilst evidence also shows that the energy affordability schemes reportedly helped limit self-disconnections of PPM households, PPM households were more likely to respond to the rise in energy prices with some harmful mitigation behaviours in winter 2022/23 – including reducing spending on necessities and making changes to their energy use. 12.5% of EBSS GB vouchers issued to traditional PPM households were not redeemed.
- Households using alternative fuels: Even though the price of some alternative fuels used off grid rose at a much slower rate than was benchmarked for other fuels upon scheme delivery, there were risks of further increases in alternative fuel prices, which would leave households off the grid vulnerable to these energy price costs. The Alternative Schemes Survey showed that among households able to heat their homes to a comfortable temperature all of the time in winter 2022/23, 74% of AFP AF households would have been able to do so without the scheme, indicating a high level of deadweight. AFP payments were delivered to the vast majority of eligible households

(with 97.4% of payments made). However, for the minority of alternative fuel households on PPMs, the £200 payment was delivered as a redeemable voucher, which required awareness of the intervention to achieve receipt of payments. In addition, the effect of awareness on consumption behaviours may have been greater for AFP compared to EBSS and EPG, given the nature of alternative fuel purchases, where it is common for households to bulk buy large quantities of heating oil and/or LPG prior to use. Therefore households were likely to be receiving AFP after they had already purchased fuel for winter 22/23, so if they were not aware of the AFP scheme they may have bought a lower amount of fuel than necessary to maintain a comfortable consumption level.

Reach of the AFP AF scheme on the other hand, was very limited, with 22% of expected applications processed. This was largely due to low awareness amongst eligible households. In addition, low take up could be due to the confusion caused from the sequencing of the main and alternative funding schemes. For example, interviews with LAs and experts in vulnerable groups indicated that some customers were confused by the contradictory messaging between the EBSS and EBSS AF scheme, with the former having a strong focus – for anti-fraud reasons – that the payment was automatic and did not require the customer to take any action. This conflicted with communications focused on the EBSS AF scheme which encouraged households to apply.

1.5 Scheme level Theories of Change

Figure 2 Energy Bills Support Scheme (EBSS GB) ToC

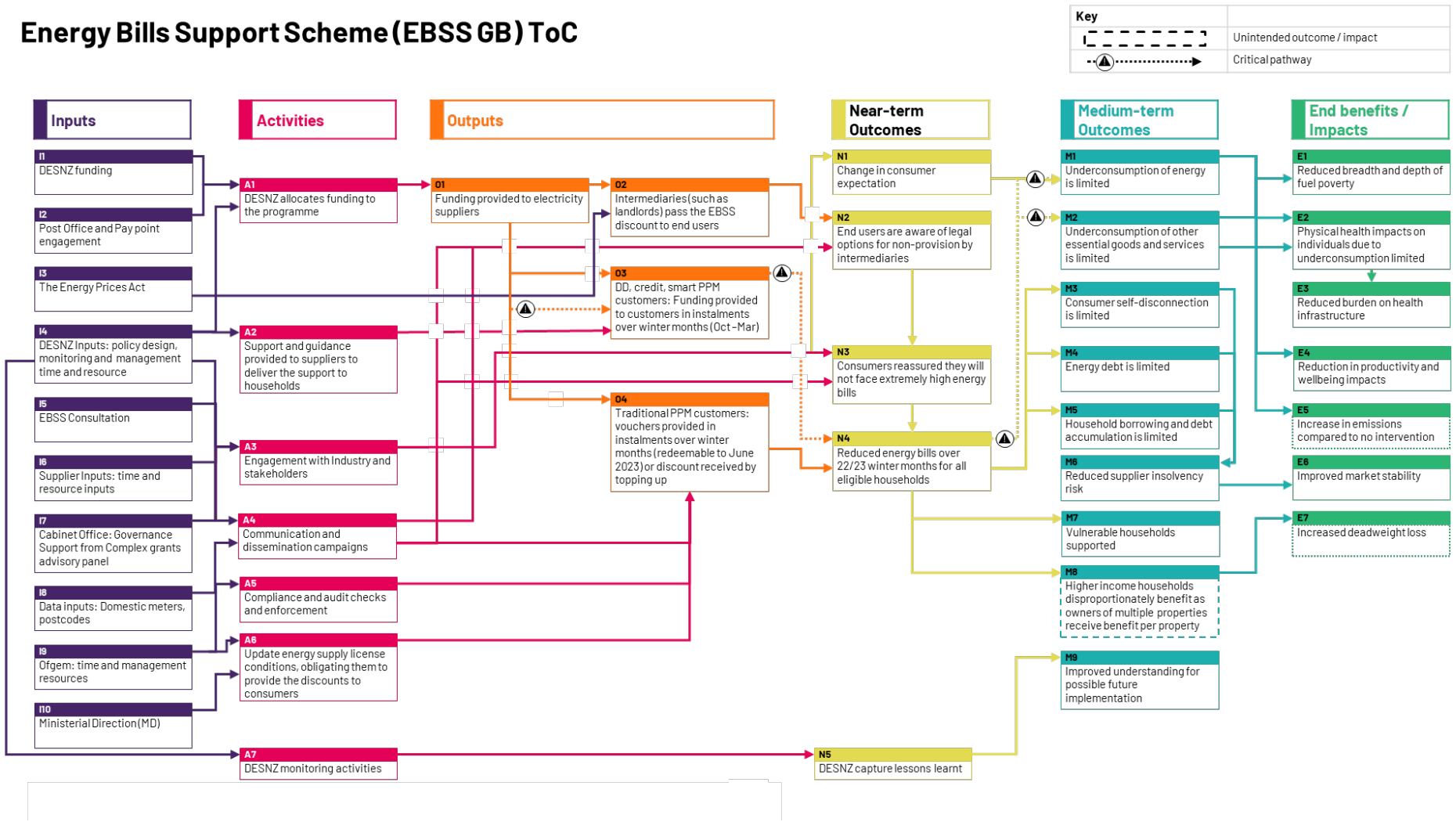


Figure 3 EBSS GB ToC revised based on study findings

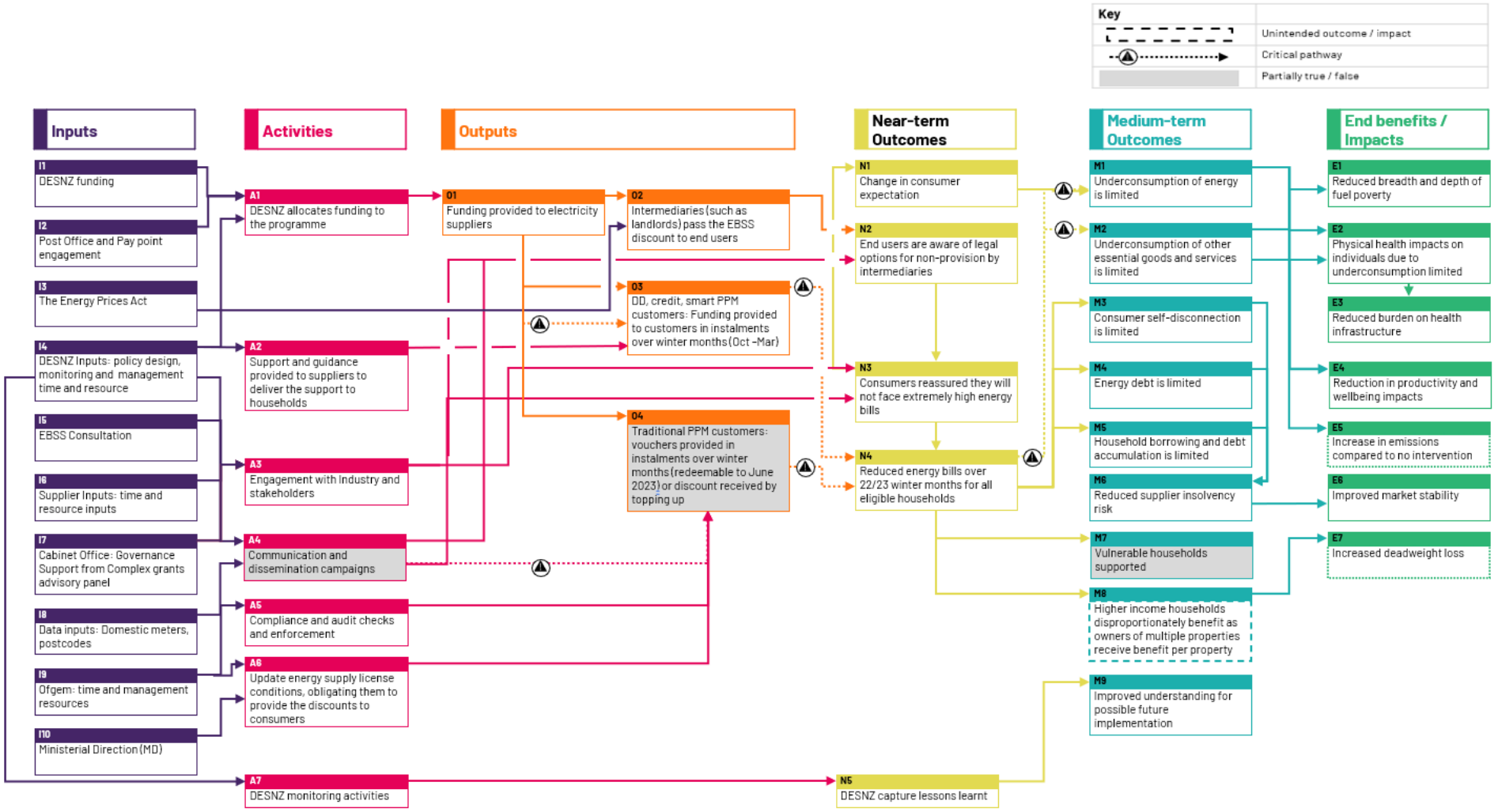


Table 1 Critical Pathways EBSS GB Revised

Causal link	Key Assumptions	Key risks
A4 – O4 – N4 PPM consumers understand how scheme works, and redeem voucher	Government takes necessary steps to make the awareness-raising campaigns informative and wide-reaching. PPM customers redeem their voucher.	Traditional PPM customers do not redeem their voucher. Households have not received guidance/were missed out by awareness raising campaigns. Traditional PPM customers ignore communications from energy suppliers and Government. Traditional PPM customers do not have identification to enable them to redeem their voucher.
O1 – O3 – N4 Funding is provided to energy suppliers who then pass on to customers in instalments over winter months, resulting in reduced energy bills for all households	The contracts formed are sufficiently binding to oblige energy suppliers to deliver the support. Energy suppliers pass on payments to households. Energy suppliers have the capacity and resources to facilitate the payments to households. Energy suppliers pass on the payment to households. There are no external additional inflationary impacts on energy bills that would increase energy bills.	Contracts are incomplete (non-binding), or there exists contractual loopholes such that energy suppliers are not obliged to deliver the support. Fraud: energy suppliers do not pass on the discount to customers. Suppliers become insolvent before passing on the discount.

	Market forces would not have lowered energy prices without intervention.	
O4 – N4 Customers redeem their vouchers, resulting in reduced energy bills for all eligible households over winter months	Customers receive vouchers & recognise their value Customers recognise & understand communications contained in correspondence with suppliers and wider media/intermediaries There are no external additional inflationary impacts on energy bills that would increase energy bills. Market forces would not have lowered energy prices without intervention.	
N4 – M1 Reduced energy bills over winter months will mean consumers will be able to consume the equivalent amount of energy as in the no intervention scenario at a lower cost. Therefore, energy underconsumption will be limited	Households do not consume more energy than they would have without the support under normal energy market conditions. The level of support provided (£400), in combination with EPG, is sufficient to achieve the desired outcomes/impacts. Prior to energy price increases households consumed an amount of energy that was safe for their health and proportionate to their needs. Customers recognise the support and choose to alter their energy consumption correspondingly Energy prices do not increase significantly beyond what is originally expected during the period of the intervention.	Consumers misunderstand how far the £400 support will go towards reducing energy bills. The support is not sufficient to limit underconsumption. Energy prices increase after the programme has been implemented negating the impact on underconsumption of energy. For consumers whose supplier paid the instalment into their bank account, consumers spend them on other goods and services.

N4 – M2 Reduced annual energy bills will mean households will have an increased disposable income compared to the no intervention scenario. This means that households will limit their consumption of necessary household spending outside of energy consumption.	Non-energy consumption is not affected by external factors such as inflationary pressures from non-energy sources, such as food price increases. Households choose to increase consumption in response to increased disposable income (Income effect). All eligible consumers need support to cover their energy bills over winter months. Customers are aware of the programme and its impact. Customers recognise & understand communications contained in correspondence with suppliers and wider media/intermediaries	Unemployment or inflation further increases, which lowers average real-term income. This prevents a reduction in underconsumption.

Figure 4 Energy Bills Support Scheme Alternative Fund (EBSS AF) ToC

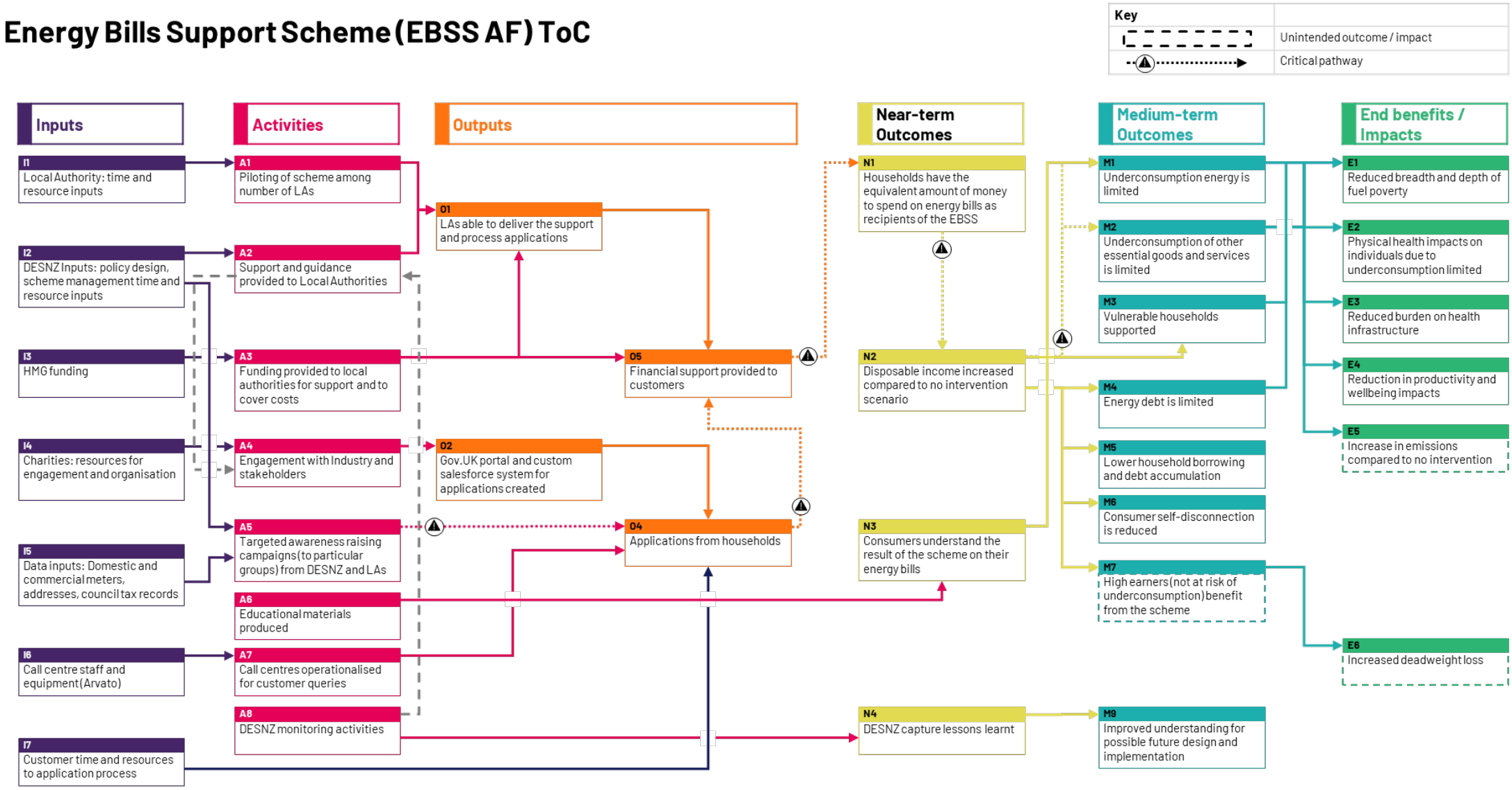


Figure 5 EBSS AF ToC revised based on study findings

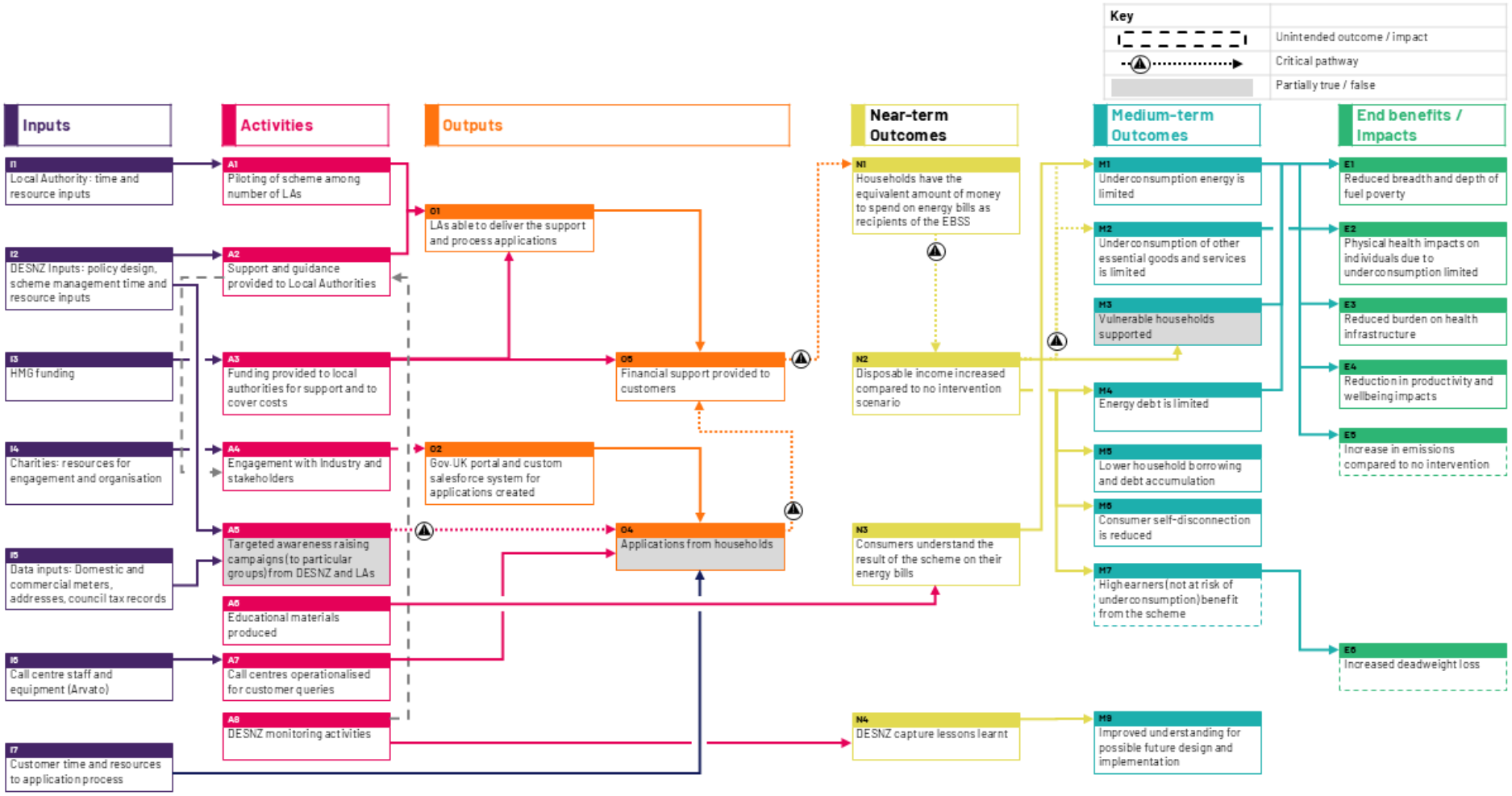


Table 2 Critical Pathways EBSS AF Revised (* in italics: partially true or false based on interim evaluation findings)

Causal link	Key Assumptions	Key risks
A5 – O4 Raising awareness campaigns and engagement lead to increased consumer awareness of what the support consists of who is eligible and how to apply. This increases awareness of the programme which leads to households applying for the scheme	Engagement activities are effective at making customers aware of the scheme. DESNZ has accurate estimate of AF eligible populations LAs are able to sign up to the portal/scheme and process applications efficiently. EBSS communications (on not needing to apply) did not influence application rates. Households are motivated to apply for the scheme. Households can access & understand communications material Households understand the scheme and the application process. Applicants are representative of the population of AF users, implying that certain subgroups do not disproportionately face challenges in applying. LAs have the capacity to open / manage the application process (GOV.UK platform) in time.	Information campaigns do not reach hard to reach households. Information campaigns are not clear enough and confuse target audiences. Low application rate due to e.g. lack of awareness and understanding of scheme or fear that programme is a scam

O4 – O5- N1 – N2) Funding is provided to the households following submission and processing of their application. The financial support provided to households will result in an increase in disposable income which can be used to contribute towards customers' energy costs. This translates to an increased capacity to afford their energy bills compared to the no intervention scenario.	LAs pass on the funding to households. LA and DESNZ eligibility checks are correct. Disposable income does not decrease due to external factors (such as unemployment, impacts of inflation, etc) which would lower a household's disposable income.	Fraud: non-eligible customers can successfully apply to the programme, leading to increased programme deadweight. LAs are delayed in delivering the funds to households. LAs do not have the capacity or capabilities to deliver the programme. Eligible applicants are incorrectly rejected. Consumers misunderstand how far £400 will go towards supporting them with their energy bills.
N2 – M1 Increased disposable income compared to no intervention scenario will mean consumers will be able to consume the equivalent amount of energy at a lower cost than compared to the no intervention scenario. Therefore, limiting underconsumption	Households do not consume more energy following the intervention compared to what they would have consumed under normal market conditions. Market forces would not have lowered fuel prices without intervention. The level of support provided (£400) is sufficient to achieve the desired outcomes/impacts. Households use the funding towards their energy bills.	Households do not use the funding towards their energy bills. Energy prices increase after the programme has been implemented limiting the impact on avoiding underconsumption of energy.

	Prior to energy price increases households consumed a safe and appropriate amount of energy. Energy prices do not increase significantly beyond what is originally expected during the period of the intervention. Payments will still be useful after the winter high energy use period.	
N2 – M2 Increased disposable income compared to the no intervention scenario will mean consumer will be able to consume the equivalent amount of energy at a lower cost than compared to the no intervention scenario. This means consumers will have more disposable income available for consumption of other goods and services, therefore limiting the underconsumption of non-energy goods and services.	Non-energy consumption is not affected by external factors such as inflationary pressures from non-energy sources, such as food price increases. Households choose to increase consumption in response to increased disposable income (Income effect)	Unemployment or inflation further increases, which lowers average real-term income. This prevents a reduction in underconsumption.

Figure 6 Energy Price Guarantee (EPG) ToC

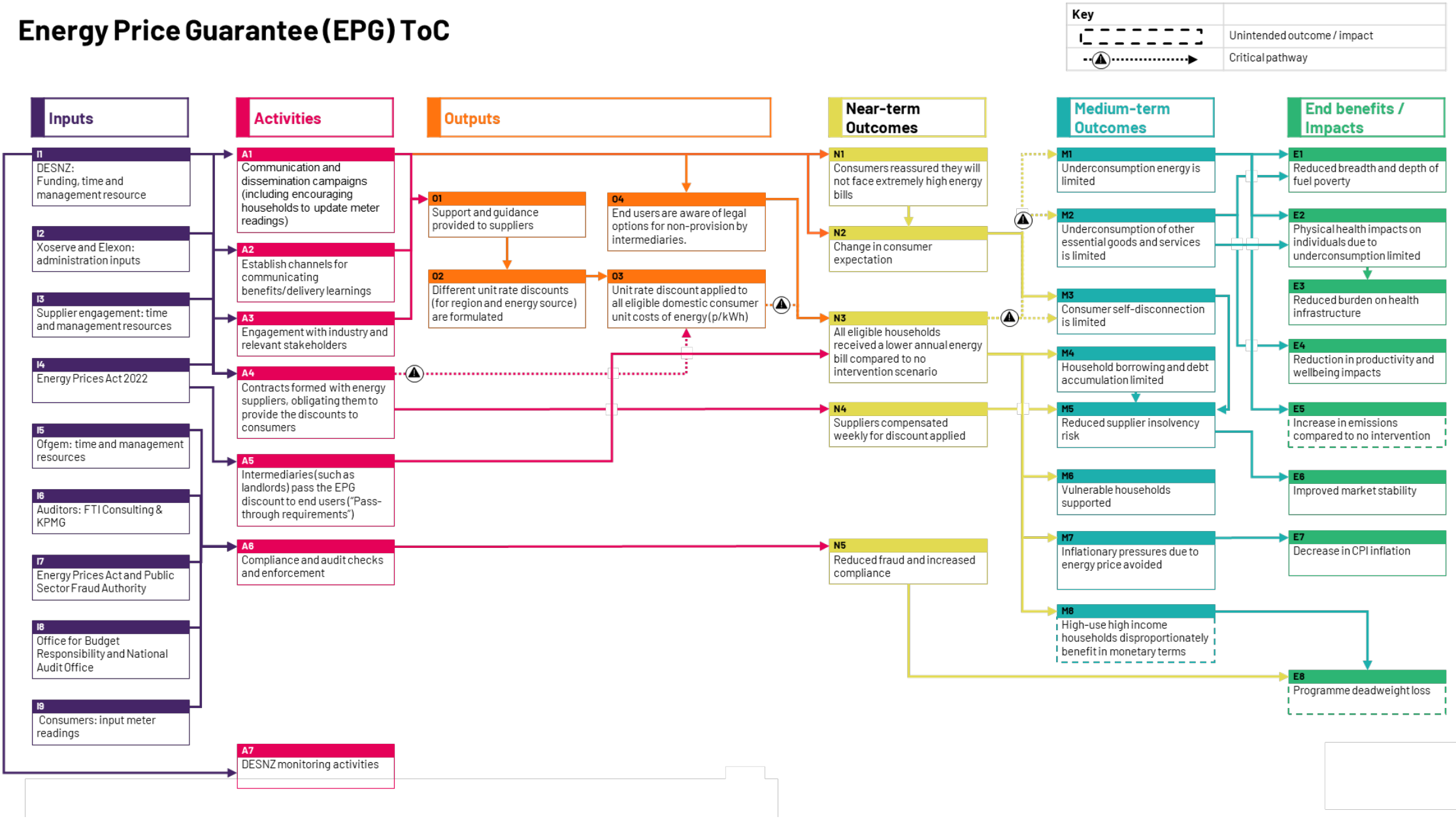


Figure 7 EPG ToC revised based on study findings

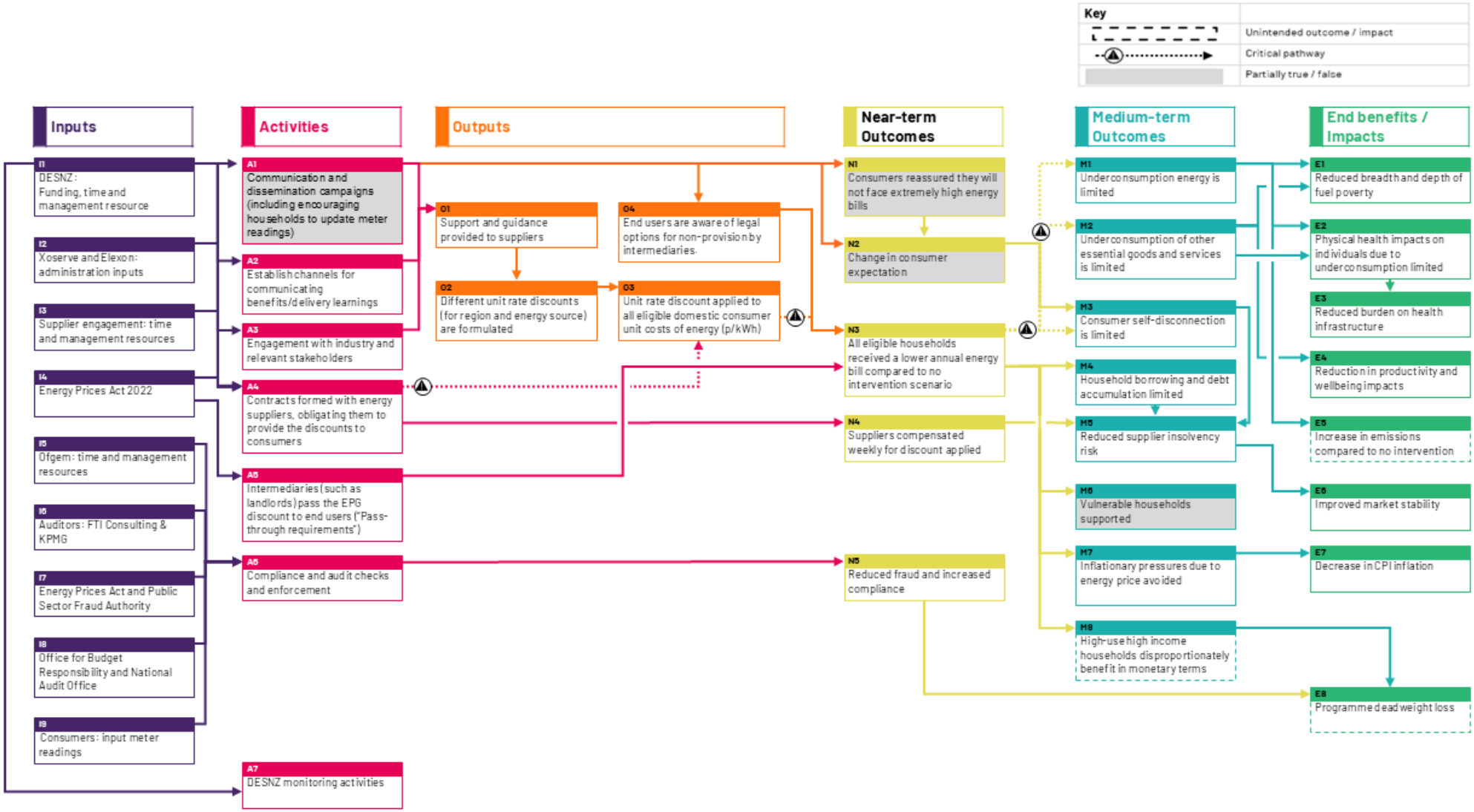


Table 3 Critical Pathways EPG Revised (* in italics: partially true or false based on interim evaluation findings)

Causal link	Key Assumptions	Key risks
A4 – O3 The contracts formed with energy suppliers mean that energy suppliers are legally obliged to deliver the support, leading to the discount being applied to household energy bills.	The contracts formed/change in licencing conditions are sufficiently binding to obligate energy suppliers to deliver the support. Data reporting is accurate and suitable for auditing. Scheme auditors and compliance partners have sufficient resources to monitor compliance of energy suppliers. Monitoring of compliance is effective, and any instances of non-compliance are rectifiable.	Contracts are incomplete (non-binding), or there exists contractual loopholes such that energy suppliers are not obliged to deliver the support. Fraud: energy suppliers do not pass on the discount to customers. Suppliers become insolvent before passing on the discount.
O3 – N3 The discount applied to the unit price of energy will translate to a reduced annual energy bill for all households.	*Households correctly understand how the scheme works and the result on their energy bills.* Households do not consume more energy following the intervention than they otherwise would have done. Households prioritise energy bills over other utility bills, and/or reduce their spending on non-essential amenities. The data underpinning the Ofgem price cap (and therefore the EPG regional rates) are correct in identifying regional differences in energy prices. Market forces would not have lowered fuel prices without intervention	Consumers misunderstand the scheme or are not aware of the scheme and increase / decrease / do not change their energy consumption following the intervention. Regional discount rates are incorrectly set.

N3 – M1 Reduced annual energy bills will mean consumers will be able to consume the equivalent amount of energy as in the no intervention scenario at a lower cost. Therefore, limiting underconsumption.	All consumers need Government support to cover their energy bills over the winter period. Prior to energy price increases households consumed an amount of energy that was safe for their health and proportionate to their needs Discount provided is sufficient to limit underconsumption and the breadth and depth of energy burden. Non-energy consumption is not affected by external factors such as inflationary pressures from non-energy sources, such as food price increases. Households choose to increase consumption in response to increased disposable income (Income effect) Non-energy consumption is not affected by external factors such as inflationary pressures from non-energy sources, such as food price increases.	The discount rate is insufficient in limiting negative mental and physical health impacts arising from increases in energy bill costs. Energy prices increase to such an extent that the scheme is no longer affordable for the Government. The discount rate is calculated incorrectly and fails to reduce the annual energy bill sufficiently to limit underconsumption. The discount rate fails to target vulnerable households who often have higher energy needs (as is the case for people with learning disabilities) Wider external factors (including broader inflationary pressures) make it more expensive to purchase other goods and services, often forcing households into a trade-off between energy and other essential purchases (particularly for vulnerable households).

Figure 8 Alternative Fuel Payments (AFP) ToC

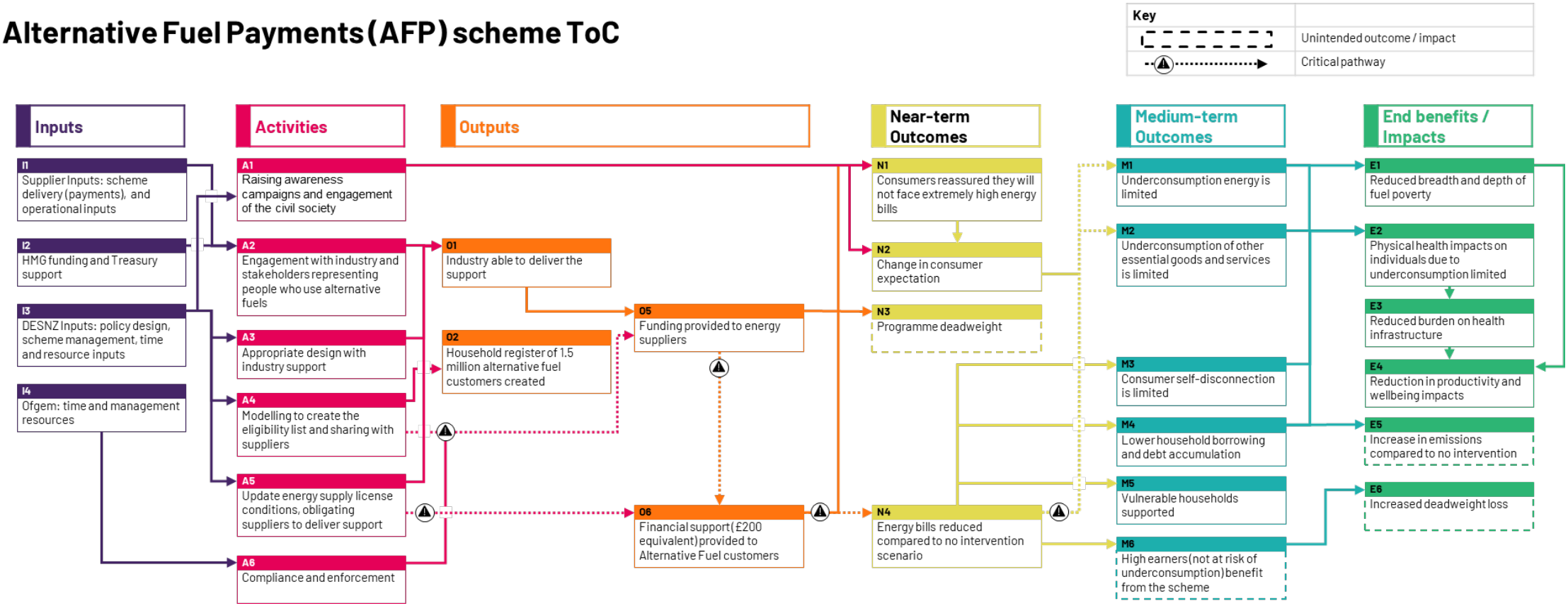


Figure 9 AFP ToC revised based on interim evaluation findings

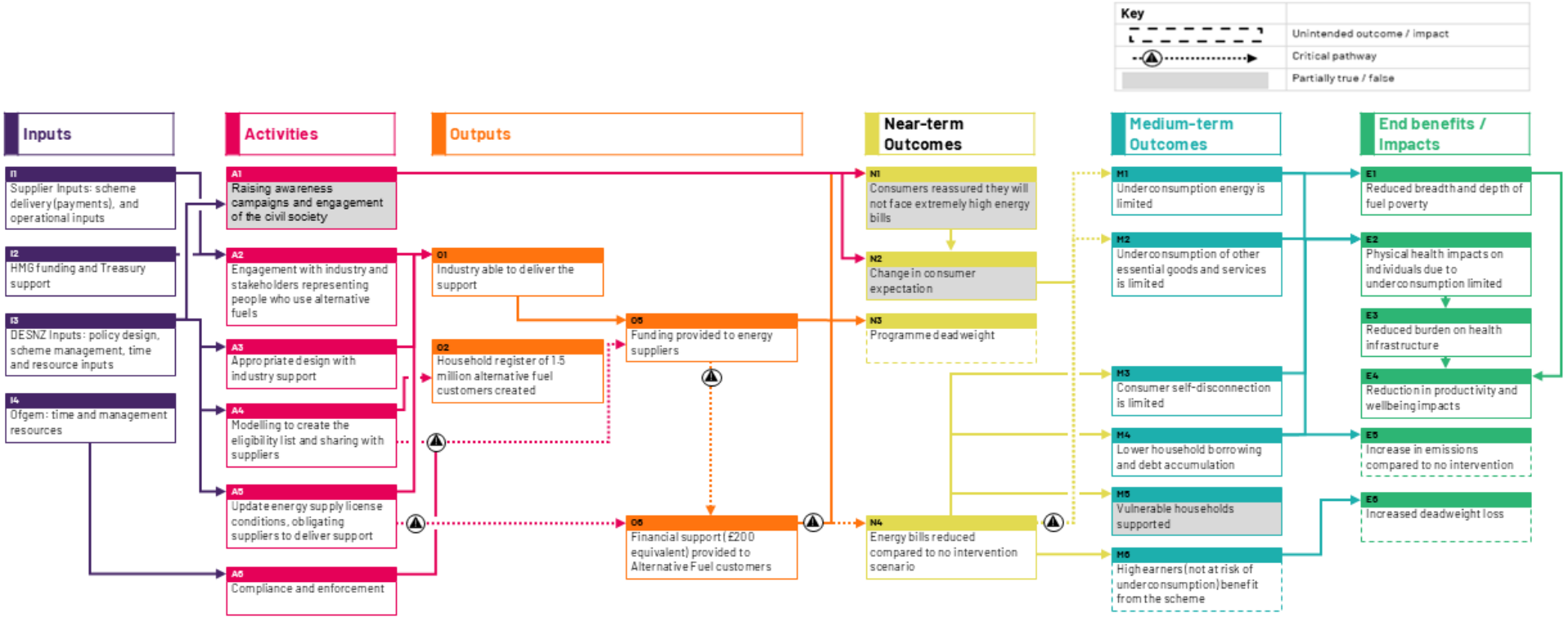


Table 4 Critical Pathways AFP Revised (* in italics: partially true or false based on interim evaluation findings)

Causal link	Key Assumptions	Key risks
A4 – O5 Modelling performed by the programme team will identify alternative fuel users. This comprehensive list will be key to identifying and providing energy suppliers with the funding for AF households. This will also be enabled by an update to the energy supplier conditions, meaning that suppliers will be legally obliged to deliver the payment to households.	Modelling is accurate at identifying alternative fuel users. The changes in licencing conditions are sufficiently binding to obligate energy suppliers to deliver the support.	Contracts are incomplete (non-binding), or there exists contractual loopholes such that energy suppliers are not obliged to deliver the support. Energy suppliers receive details of additional alternative fuel users after scheme implementation, which delays payment delivery. Energy suppliers do not receive accurate customer details which complicates payment delivery. Deadweight loss: the compiled list of alternative fuel users is significantly incorrect: it identifies a large number of electricity users which increases the deadweight loss of the programme.
O5 – O6 Given that the suppliers are obliged to deliver the support to households, they will then pass	The contracts formed are sufficiently binding to oblige energy suppliers to deliver the support. Suppliers have the technical capacity and capability to distribute support	Fraud: Energy suppliers do not pass on the funding to customers. Suppliers become insolvent before passing on the discount

on this funding as £200 equivalent to households.		
O6 – N4 The £200 payment to households will reduce the annual energy bill for households compared to the no intervention scenario.	Households do not consume more energy than in normal conditions following the intervention. Market forces would not have lowered energy prices without intervention	Consumers misunderstand the scheme or are not aware of the scheme and increase their energy consumption following the intervention.
N4 – M1 Reduced annual energy bills will mean consumers will be able to consume the equivalent amount of energy as in the no intervention scenario at a lower cost. Therefore, limiting underconsumption.	Prior to energy price increases households consumed an amount of energy that was safe for their health and proportionate to their needs *Households are aware of the programme and its intended impact.* The funding provided is sufficient to limit underconsumption of alternative fuel-related purchases. Energy prices do not increase significantly beyond what is originally expected during the period of the intervention.	Energy prices increase after the programme has been implemented negating the impact on underconsumption of energy. Oil delivery price increase during programme implementation and cost as much as the overall amount households received from the AFP scheme.

Figure 10 Alternative Fuel Payments Alternative Fund (AFP AF) ToC

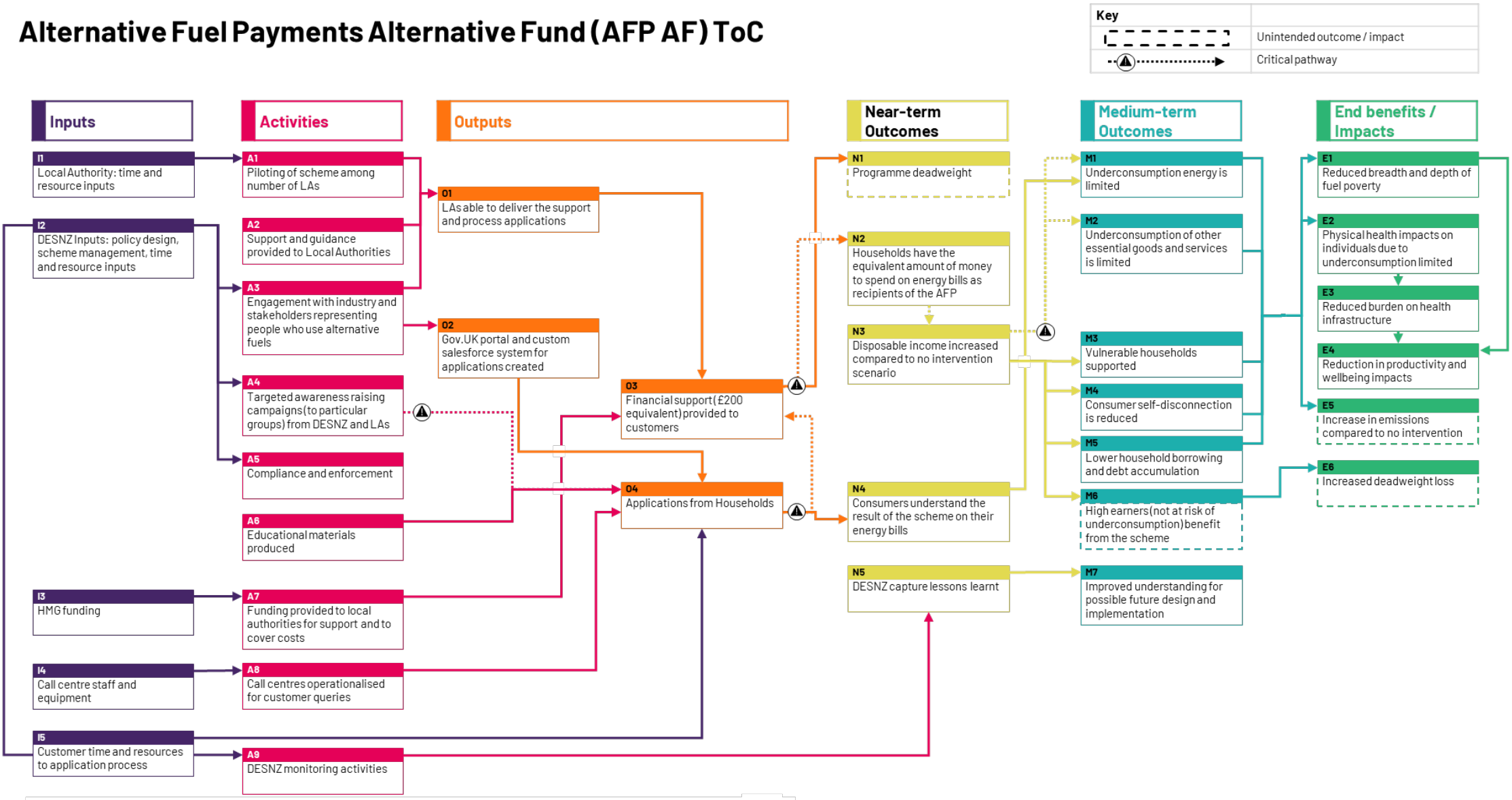


Figure 11 AFP AF ToC revised based on interim evaluation findings

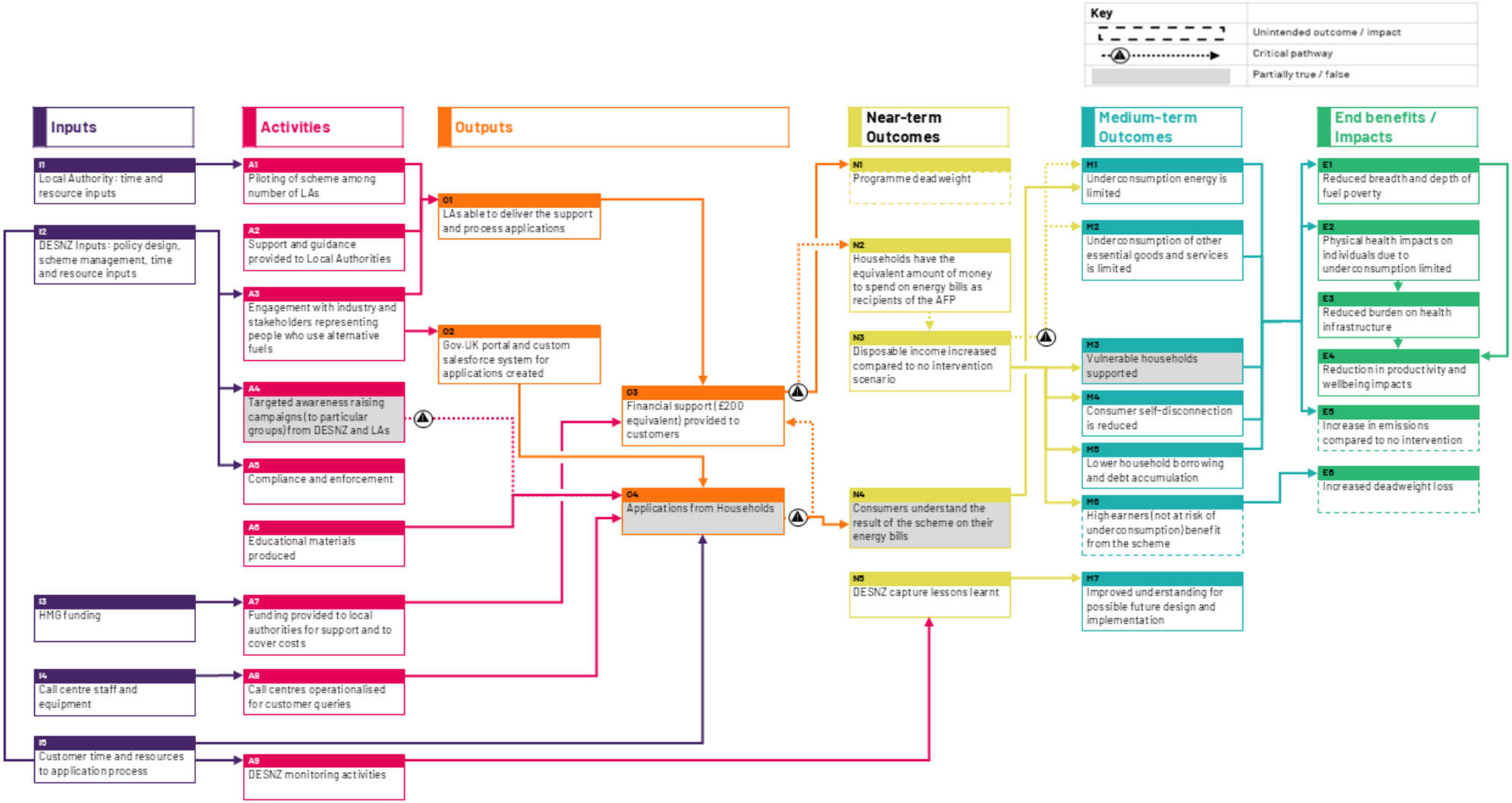


Table 5 Critical Pathways AFP AF Revised (* in italics: partially true or false based on interim evaluation findings)

Causal link	Key Assumptions	Key risks
A4 – O4 Raising awareness campaigns and engagement lead to increased consumer awareness of what the programmes entail, who is eligible and how to apply. This increases awareness of the programme which leads to households applying for the scheme	*Engagement activities are effective at making customers aware of the scheme and ensuring sufficient take-up.* Local authorities are able to sign up to the portal/scheme and process applications efficiently. DESNZ communications (on not needing to apply) did not influence application rates. Households are motivated to apply for the scheme. *Households understand the scheme and the application process.* Applicants are representative of the population of alternative fuel users, implying that certain subgroups do not disproportionately face challenges in applying. Local authorities have the capacity to open / manage the application process (GOV.UK platform) in time.	Information campaigns do not reach hard to reach households. Information campaigns are not clear enough and confuse target audiences. Low application rate due to e.g. lack of awareness and understanding of scheme or fear that programme is a scam. Certain subgroups of the population have lower awareness which means that there is low take-up within these populations.

O4 - O3 - N2 - N3 Funding is provided to the households following submission and processing of their application. The financial support provided to households will result in an increase in disposable income which can be used to contribute towards customers' energy costs. This translates to a reduction in energy bills over the winter months compared to the no intervention scenario.	Local authorities pass on the funding to households. Local authority and DESNZ eligibility checks are correct. Disposable income does not decrease due to external factors (such as unemployment, impacts of inflation, etc) which would lower the customers disposable income.	Fraud: non-eligible customers can successfully apply to the programme, leading to increased programme deadweight. Local authorities are delayed in delivering the funds to households. Local authorities do not have the capacity or capabilities to deliver the programme. Eligible applicants are incorrectly rejected. The scheme is delayed which means the discount is not provided over the winter months.
N3 – M1 Increased disposable income compared to no intervention scenario will mean consumers will be able to consume the equivalent amount of energy at a lower cost than compared to the no intervention scenario. Therefore, limiting underconsumption	The level of support provided (£200) is sufficient to achieve the desired outcomes/impacts. Market forces would not have lowered prices related to alternative fuels without intervention. Households use the funding towards their energy bills. Prior to energy price increases households consumed an amount of energy that was safe for their health and proportionate to their needs	Consumers misunderstand the scheme and increase their consumption of energy following the intervention. Energy prices increase after the programme has been implemented negating the impact on underconsumption of energy. Households consume more energy over the winter months following the intervention compared to what they would have consumed under normal market conditions.

	Households are aware of the programme and its intended impact. Fuel prices do not increase significantly beyond what is originally expected during the period of the intervention. Payments will still be useful after the winter high energy use period.	
N3 – M2 Increased disposable income compared to the no intervention scenario will be able to consume the equivalent amount of energy at a lower cost than compared to the no intervention scenario. This limits the underconsumption of non-energy goods and services.	Non-energy consumption is not affected by external factors such as inflationary pressures from non-energy sources, such as food price increases. Customers are aware of the programme and its impact. Households choose to increase consumption in response to increased disposable income (Income effect)	Unemployment or inflation further increases, which lowers average real-term income. This prevents a reduction in underconsumption.

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

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