What are the barriers that prevent those in fuel and water poverty accessing support mechanisms?

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Abstract:

This dissertation seeks to understand further the structural barriers that prevent those in fuel and water poverty in the United Kingdom accessing the support mechanisms specifically designed to address these issues. Semi-structured key informant interviews were undertaken with twenty one individuals working to deliver support to those in fuel and water poverty. It is found that a range of structural factors impact upon the delivery of policy in practice. It is also found that the incentives that drive implementation are sometimes at cross-purposes. Additionally, this work explores the value of comparing and contrasting fuel and water poverty as concepts, and the potential for joint policy implementation. These findings are analysed with reference to microeconomic theory. Whilst it is acknowledged that these findings are somewhat limited in their generalisability, further understanding of their implications lends itself to exploration in future work. It is hoped, also, that the findings will be of use to policymakers in understanding further the way in which policies interact and work in practice, with implications for implementation. They also offer evidence to encourage the further exploration of policy possibilities that are currently utilised little or not at all; for example, Fuel and water direct, charitable trusts and "restart" payment matching schemes, a mandatory social tariff for fuel, data sharing between benefits agencies and water companies, and the combination of fuel and water support mechanisms. This dissertation offers an original contribution in its consideration of the ways in which the delivery of policy designed to combat fuel and water poverty can, in practice, result in policy failure due to internal conflicts. In addition, the work contributes to the growing base of academic literature that considers fuel and water poverty as related concepts.

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Chapter One: Introduction

The impact of high fuel prices upon domestic consumers was first recognised as a social problem following the oil crisis of 1973 (see Bradshaw and Hutton, 1983) and considered in depth by Boardman in her book *Fuel Poverty: From Cold Homes to Affordable Warmth* (1991). More recently, similar concerns have been identified around the supply of domestic water in the United Kingdom (see Huby, 1995; also Lister, 1995). Policymakers have sought to alleviate both problems through a variety of support mechanisms including efficiency measures (see DECC, 2010) and social tariffs (see Ofwat, 2010). However, despite concerted efforts to promote such programmes, they have historically been subject to low take-up (with reference to fuel, see Consumer Focus Scotland, 2009; to water, see Ofwat, 2009).

United Kingdom Governmental Departments take their cue from Boardman's original work in defining fuel poverty as households who spend - or would have to spend - more than 10 per cent of their income on fuel to maintain a satisfactory heating regime (DECC, 2001). No such definition of water poverty is accepted by legislative bodies in recognition that disconnection of domestic water supply is no longer legal in the United Kingdom, presenting a stark contrast with more fundamental water access issues in other countries. In recognition of the political implications of the word “poverty”, reference tends to be made instead to

"water affordability". However a more informally, but widely, adopted measure defines water poverty as the state whereby a household spends more than three per cent of net income on water bills (see DEFRA, 2009; also Fitch and Price, 2002).

In the wake of the economic recession, increased financial pressures upon households have intensified the impacts of both fuel and water poverty. As both are defined in terms of household income and expenditure, the risk of households falling below the defined thresholds has increased. As a secondary factor, the increasing political impact of the environmental agenda has drawn attention to issues relating to fuel and water consumption. The increasing significance of both water and fuel poverty has not gone unnoticed by both United Kingdom government and the devolved parliaments in Scotland and Wales, as indicated by continuing efforts to combat the issues (see DECC, 2009; also DEFRA, 2009).

There are many similarities between both water and fuel poverty that demonstrate potential for comparison; the impacts of both are wide-ranging and interconnected (Snell and Main, 2009). Both fuel and water are deemed essential to acceptable living conditions and are provided by an independently regulated market system. A shortage of either can have profound social, environmental, economic and health-related effects (Huby, 1995; Gilbertson et. al., 2006). Furthermore, both the established definitions of fuel and water poverty are derived from household

expenditure as a percentage proportion of income; thus, as might be expected, the two have been demonstrated to commonly coexist (Bradshaw and Chzhen, 2008).

In contrast to the many similarities, fundamental differences exist between the two industries that allow for further opportunities for comparison. The first key deviation is that, whilst disconnection remains a legal possibility for fuel suppliers in with consumers who fail to maintain payments, domestic water disconnection became illegal with the Water Industry Act 1999 (see HM Government, 1999). This is the source of a major divergence in the management of fuel and water debt for both suppliers and consumers. Secondly, whilst institutions play a significant role in the provision both of fuel and water, there exist cardinal differences between the two. Both the fuel and water industries were privatised under the wide-reaching reforms of the Thatcher government. The organisations created at this time have been subject to continual evolution, and intricate networks exist between providers, government and regulators (Graham, 2006). However, whilst the supply of domestic fuel has largely been opened to market forces, in the water industry regional monopolies continue to preclude open competition; this results in the two industries being subject to very different policy challenges.

It should be noted at this stage that this work refers exclusively to the supply of fuel in the United Kingdom, and of water in England and Wales. There is some deviation in the geographic areas under consideration for

water and fuel, but there is no reason to believe this detracts from the ability to make comparisons between those areas. Whilst the fuel industry has been privatised across the United Kingdom, in Scotland and Northern Ireland the water industry has not been privatised and supply is managed by, respectively, Scottish Water and Northern Ireland Water. England and Wales, however, continue to represent the most extensive example of water privatisation internationally (Ofwat/DEFRA, 2006), making this case a particularly appealing subject for research. The distinct nature of the institutions in place limits the applicability of this work to the case of the United Kingdom, to some extent. However, with the World Bank and International Monetary Fund increasingly encouraging similar models of water privatisation when making loans to developing countries (NPR, 2003), lessons from the United Kingdom are likely to be of increasing interest to an international audience (Van den Berg, 1997).

The existing literature on fuel poverty, particularly that conducted from a policy – rather than a medical or environmental – perspective is relatively limited. The literature around water poverty is even more restricted, and what does exist tends to refer to water poverty in the international sense. Despite the observed similarities between fuel and water poverty, very few studies currently exist that consider the two together; accordingly, this research into the interrelated impacts of solutions and of the mechanisms that influence both policy processes offers an original contribution to the emerging literature.

Limited research does exist considering the personal barriers that prevent individuals who struggle to pay their fuel and water bills from seeking support (Dodds and Dobson, 2008; Snell et al., 2009). Similarly, some work exists considering the complex interactions of environmental and fuel poverty policy in the United Kingdom (Powells, 2009). However, little if any literature currently exists considering the structural barriers that impact upon the implementation of support to individuals in fuel and water poverty in the United Kingdom; these exist largely as a function of the difficulties in ensuring equitable delivery of essential goods within a privatised market. This dissertation seeks to fill this gap by taking the approach, derived from microeconomic theory, of considering the way market behaviours and interactions impact upon the enactment of policy in practice.

This dissertation seeks to understand further the nature of the structural barriers that prevent individuals who have difficulty paying their domestic fuel and water bills from accessing the available support mechanisms. The first overarching research question derived in response to this concern considers the effectiveness of the transition of support mechanisms from policy to practice; this incorporates a consideration of the extent to which support is uniformly available across the customer base, the extent to which support is sufficiently available to those who seek it, the incentives driving delivery of support, and the nature of the relationship between those implementing support mechanisms and those in receipt.

As a secondary consideration, this work seeks to contribute to the currently limited base of literature that treats fuel and water poverty as related issues by offering a comparison of the similarities and differences that exist between the two as a function of inter-industry structural variations. In comparing the two there is potential for transference of theory and practice, particularly in the case of water poverty which, as previously noted, is less established as an area of concern.

To answer these questions, a qualitative approach is adopted, conducting semi-structured key informant interviews with individuals working on behalf of organisations that engage, in some capacity, with consumers who are struggling to pay their fuel bills, water bills, or both. This approach draws upon the professional experience of individuals working in a broad range of capacities, with a view to generating some theories as to the natures of structural barriers that may exist.

In Chapter Two, the existing academic literature around fuel and water poverty is reviewed, including existing considerations of the means of supporting individuals. Current policy relating to fuel and water poverty and the range of support mechanisms that are available is also assessed and evaluated. Chapter Three then explains how a series of research questions were developed which aimed to respond to identified gaps in the existing body of work. Chapter Four discusses the development of the research methodology which was, as referred to previously, semi-

structured key informant interviews. In Chapter Five, the results are discussed thematically, considering both their relationship to the initial research questions as well as to the body of existing literature. Finally, in Chapter Six, conclusions are offered as to the degree to which this research has been able to respond to the initial research questions, any restrictions in application and the extent of the contribution made to existing gap in knowledge. Propositions are also made as to potential future avenues for research and policy recommendations that that have arisen from this work.

Chapter Two: Literature Review

This chapter will review existing literature, both academic and policy, relating to fuel and water poverty and to the support mechanisms designed to counteract them. The review shall be ordered thematically, in the first instance considering the established definitions of fuel and water poverty. I will then look at literature that establishes their prevalence and overlap, demonstrating the scale of the social problem presented. The third section will consider the policy networks in place around fuel and water poverty, offering in addition some consideration of the incentives that drive them. From here I will move to define further which of the support mechanisms that arise from these networks are to be considered within this research, and review the existing literature that pertains to these.

It is worth mentioning from the offset that there is considerably more policy and academic literature relating to fuel poverty than there is to water poverty, certainly within the context of the United Kingdom. Indeed, that discrepancy underlies one of the goals of this work; to build from the existing base of fuel poverty literature and policy, seeking further applications and insights with relation to water poverty.

Definitions

Whilst are no objectively agreed, universally adopted definitions of either

fuel or water poverty, some have been proposed and will be used to guide this work. This section will consider these definitions, the extent to which they have been accepted, and contentions that exist as to their utility.

Fuel Poverty

Concerns about the impact high fuel bills might have on low income households first arose following the oil crisis of the 1970s, whereby the price of fuel for domestic heating underwent huge increases (Bradshaw and Hutton, 1983). It was at this point that the first lobbying groups emerged to oppose fuel poverty, most notably the National Right to Fuel Campaign in 1975 (National Right to Fuel Campaign, 2010).

The first real definition of fuel poverty was subsequently offered by Brenda Boardman (1991) who proposed, as referenced in Chapter One, that any household that spends more than ten percent of gross total income to maintain a satisfactory heating regime should be considered to be in fuel poverty. It should be noted at this stage that whilst it is recognised that heat is not the only application of domestic fuel, it is the most significant by a long way; hence it was deemed by Boardman to be integral to the definition.

Boardman's definition has been adopted widely by energy companies (see E.ON, 2010; also Centrica, 2010), support organisations (see Age UK,

2010; also Consumer Focus, 2010) and Government (see DECC, 2009; also DEFRA, 2004). Furthermore, the definition of “satisfactory heating regime” has since been refined to “21 degrees for the main living area, and 18 degrees for other occupied rooms”; this modification is observed by Government (see DECC, 2009; DEFRA, 2004).

Though Boardman's definition of fuel poverty is generally widely accepted, certainly more so than any proposed for water poverty, there remain doubts as to its practical applicability and contention over terms. Firstly, there is considerable difficulty in establishing whether a “satisfactory heating regime” exists within households under consideration. Unless monitoring equipment is placed, it is impossible to know whether the domestic heating regime that is being maintained is adequate. There is a particular risk here as households in fuel poverty may lower their fuel usage, removing the financial strain but introducing another issue that may well go undetected. This could be of additional concern where vulnerable consumers are involved; see for example the interview-based studies with older people conducted by Wright (2004) and O'Neill et al. (2006).

Secondly, under Boardman's definition – and the definition widely accepted by Government – the measure of household income is that of total income. However, some organisations hold that the income value considered should, as far as possible, be disposable income. In particular, it is felt that housing costs should be subtracted from the

income measurement; in the case of benefits recipients – a category that is likely to include many of the fuel poor – this would encompass Housing Benefit and Income Support for Mortgage Interest. So whilst, for example, The Government's *Fuel Poverty Strategy* takes account of both income definitions, targets are set with reference to the definition that includes such benefits as part of income (DECC, 2001: 30). However, organisations such as National Energy Action maintain that these benefits should be removed entirely from consideration as to whether a household is fuel poor; thus the definition should refer, as far as possible, only to disposable income (NEA, 2010).

Water Poverty

Water poverty is a more recently defined concept, with late adoption partially attributed to the lower relative impact of water charges upon household costs in comparison to fuel bills (DEFRA, 2009). Nevertheless, from the mid-1990s – as housing costs and the incidence of poverty continued to increase – an emergent academic literature began to discuss water poverty as a distinct issue, drawing upon existing policy literature and concerns voiced by consumers (see Huby, 1995; also Lister, 1995).

The first concrete definition of water poverty was suggested by Fitch and Price (2002), who – using the fuel poverty definition as a starting point – derived the percentage of income spent on water bills by the lowest three

income deciles. This was found to be three per cent, and this value was accordingly adopted as the equivalent to the ten percent figure for fuel. The Fitch and Price definition is utilised by both organisations (Creative Research, 2009; on behalf of the Consumer Council for Water) and suppliers (Yorkshire Water, 2007). Whilst this suggests that it has been accepted at least some degree, it has not been formally adopted by Government. It was referred to as a "useful indicator" in The Independent Review of Charging for Household Water and Sewerage Services (DEFRA, 2009) – popularly known as the Walker Review – the most comprehensive analysis of domestic water affordability to date conducted by Government; however, it is explicitly not adopted for usage for several reasons.

Firstly, no standard volume of water has been established for individual need (DEFRA, 2009). Secondly, water is subject to regional cost variations that have a far greater impact on price than any differentials between fuel companies. Finally, as water supply cannot legally be disconnected, it is argued that no individual can truly be in water poverty where poverty is defined as a lack of something; even if they cannot afford water, they will still be able to access it (DEFRA, 2008). This final reason draws reference to a definition of water poverty more akin to that proposed by Salameh (2000) than that of Fitch and Price (2002). Salameh considers water poverty in a more absolute sense, i.e., whether water is actually available to serve the needs of a population. This distinction is observed by Komnenic et al. (2009: 220), who contrasts Fitch and Price's

definition with the broader definition, stating that the former "serves the practical purpose to capture the affordability of water to households, but does not attempt to incorporate the other dimensions related to the water."

This research concerns the structural barriers that prevent individuals in fuel or water poverty accessing the support mechanisms that are available to them. However, as established here, neither of the established definitions is universally adopted by the types of institutions that impact upon this support. Additionally, even where the definitions are accepted, they are too nebulous to be used rigorously, for example, as targeting criteria; no organisation providing support is likely to know for sure whether an individual meets either definition in the strictest sense. Beyond this, even, the usage of such definitions is potentially undesirable. Denying support to someone whose water bill amounts to only 2.9% of their net income may seem rather arbitrary. As ensuring acceptance criteria are fully aligned with any accepted definitions of fuel and water poverty is almost impossible, there would seem to be a high likelihood of individuals in fuel or water poverty failing to receive support; this is identified as an issue worth of further investigation.

Joint Consideration of Fuel and Water Poverty

As discussed in the literature review, the concepts of fuel poverty and water poverty have long been linked; indeed, the definition of the latter

was derived in reference to that of the former (Fitch and Price, 2002: 9-10). However, there are other similarities between water poverty and fuel poverty that compel this comparison in the first instance. The first obvious comparisons to draw are in the nature of the two commodities. Both are widely considered to be essential to a comfortable, healthy living standard. Both are supplied direct to the household and, presuming timely payment, are available on demand.

There are also similarities in the industry structures. Fuel is supplied privately throughout the United Kingdom, as is water in England and Wales. Indeed, the United Kingdom and France remain the only OECD countries where the water supply is operated mostly by the private sector. It is the English and Welsh example that goes the furthest in limiting role of the public sector, restricting it largely to setting targets (Brook Cowen, 2007). Otherwise, ninety percent of international domestic water and wastewater services remain in the hands of the public sector (Rogers and Hall, 2003). For this reason, England and Wales, specifically, present a unique case in terms of comparisons between water and fuel supply.

By far the most distinct difference between the two is in terms of the possibility of disconnection; whilst the disconnection or restriction of water supply has been illegal since 1999 (see Water Industry Act, 1999: Schedule 4A), fuel disconnection is permitted in cases where the customer is not viewed to be vulnerable and outside of winter months

(see Ofgem, 2010). The disconnection difference is crucial to any comparison of water and fuel poverty, and can be judged to have wide ranging impacts in terms of customer attitudes to bills, debt collection methods, and perceived urgency of obligation, amongst other factors (see Snell and Main, 2009; also Creative Research, 2009). One crucial manifestation of this is that, in water, there is no sanction to induce consumers to make payment; this creates a difficulty for water companies in discerning between those who “can't pay” and those who “won't pay” (Sawkins and Dickie 2008). This issue, in particular, will prove crucial to this, and any other, comparisons of fuel and water poverty policy. Furthermore, Fitch and Price observe that as there is no possibility of disconnection, there is no mortality rate associated with water poverty as there is with fuel in the form of winter mortality (Fitch and Price, 2002, p. 9). However, Snell et al. observe that there is logical inconsistency in the disconnection difference as some of the core functions of water, for example, washing, require the water to be heated (Snell et al., 2009).

A second key difference is in the means of supply; whilst both fuel and water supply are privatised (in England and Wales, at least), water remains in the hands of natural, regional monopolies. Thus customers are able to choose their fuel supplier, but not their water supplier; this may be expected to have some impact of the customer-supplier relationship in either case. Additionally, water customers remain subject to regional price differentials, which are in some cases significant (see Huby and Anthony, 1997; also Ofwat, 2010b).

Whilst fuel is universally metered, and so paid for according to usage, water in large part remains subject to standard charges tied to the rateable valuable of the property in question. Given that Ofwat encourage water metering, and that from 2010 suppliers will have the option to make meters compulsory (see Ofwat 2010c), it is expected that they will become more prevalent; however, for now this presents a catalyst for differences to emerge. For example, as observed by Snell and Main (2009), where usage is not metered, there is no financial incentive to moderate usage on environmental grounds. However, metering is also viewed to present a potential risk should consumers moderate their use to unhealthy or unhygienic levels on the basis of affordability (Huby, 1995); a form of self-disconnection. Thus the severe health impacts that Fitch and Price (2002) previously discounted for water could still emerge, to some extent. The impacts of fuel and water usage on health and the environment will be discussed further later on in this chapter. A final key distinction between the fuel poverty and water poverty is in the type and level of support available to those individuals who find themselves in one or both (see Snell and Main, 2009).

Given the core similarities between fuel and water, a comparison of the two can be expected to be mutually beneficial. In particular, as literature on water poverty is decidedly more limited, the more established base of research around fuel poverty makes for an extremely useful point of reference. Equally, the differences between the two are also worthy of

close consideration, both in terms of explanatory power, as well as offering potential for policy transfer. This research aims to build upon a growing academic consideration of fuel and water poverty as related concepts, much of which has been undertaken within the Department of Social Policy and Social Work at the University of York (see Snell and Main, 2009; Snell and Bradshaw, 2009; Snell et al., 2009).

Prevalence

Whilst there remains some contention around the proposed definitions of fuel and water poverty in terms of implementing support mechanisms, one common application of both is in statistical work undertaken by both policymakers and academics to establish prevalence. Such work is useful in assessing the extent of the issues, even if the transition to real-world policy solutions is rather more fraught. In this section, I will discuss existing work undertaken to establish both the prevalence of fuel and water poverty, as well as the extent to which they are anticipated to overlap.

Fuel Poverty Prevalence

In line with the government commitment to end fuel poverty in the United Kingdom by 2018 (DECC, 2001), the Department for Energy and Climate Change release annual statistics that model the incidence of fuel poverty nationally (DECC, 2009). The report uses data from the English

House Condition Survey, the Scottish House Condition Survey, the Living in Wales Survey, and the Interim House Condition Survey (for Northern Ireland) to estimate fuel poverty based on data on full and basic (minus housing costs) income, and using estimates of fuel costs derived from data held around household consumption, fuel type and fuel costs.

From this data, a fuel poverty ratio is derived as follows:

$$\text{Fuel poverty ratio} = \frac{\text{(fuel usage x price)}}{\text{income}}$$

(from DECC, 2009: 2)

If this ratio is greater than 0.1 (in line with the standard definition) then the household is defined as being fuel poor.

This methodology is somewhat limited in that it uses estimates of satisfactory fuel costs as opposed to actual usage; thus it does not account for overuse and underuse of fuel. However, as an estimate of levels of fuel poverty assuming usage that matches that definition, it serves as a useful indicator. It is also worth considering that there is a year's lag in the figures released by DECC (see DECC, 2009: 53). The most recent Annual Report on Fuel Poverty (DECC, 2009) the prevalence of fuel poverty across the United Kingdom in 2007 was estimated at around 4 million, or around 16% of all households.

In addition to the annual review undertaken by government, some external work has been undertaken to map the incidence of fuel poverty in the United Kingdom on a ward level; for example, work undertaken in Scotland by Changeworks, 2010 drawing upon methodology suggested by Morrison and Shortt (2008), and in England by the Centre for Sustainable Energy at the University of Bristol (Fuel Poverty Indicator, 2010).

Water Poverty Prevalence

Due in part to the fact that the definition of water poverty is not so widely accepted, research into the prevalence of water poverty is more limited. However, work undertaken by Bradshaw and Chzhen (2008: 3) utilising data from the 2005/6 Expenditure and Fuel Survey estimated prevalence at 13.4 per cent of households in that period. Furthermore, it was found that this rate was doubled for a range of vulnerable groups including single pensioners, workless households and the bottom income quintile.

Interaction

The statistical analysis undertaken by Bradshaw and Chzhen (2008) utilising data from the 2005/6 Expenditure and Fuel Survey assessed the interaction between fuel and water poverty:

Table 2:

(%)	In Water Poverty	Not in Water Poverty
In Fuel Poverty	63.7 (33.8)	36.3
Not in Fuel Poverty	9.8	90.2

[Brackets indicate corresponding alternate column percentage.]

(adapted from Bradshaw and Chzhen, 2008, p.16)

And so it is found that 63.7% of those in fuel poverty are in water poverty, whilst only 33.8% of those in water poverty are in fuel poverty. This disparity could potentially explained by the regional differentials in water pricing; might expect that in regions where water pricing is comparatively high, there is a high incidence of water poverty without fuel poverty. The coincidence of water and fuel poverty is of interest largely in that it further validates drawing comparisons between the two.

Support Networks

It should be noted at this stage that, whereas consideration of fuel poverty considers the whole of the United Kingdom, that of water poverty considers only England and Wales. This is because only England and Wales operate the types of privatised water distribution under

consideration in this research. It is not believed that this slight difference impacts upon comparisons drawn, and it would be impractical to remove Scotland and Northern Ireland from consideration of fuel poverty. Additionally, the devolved regions set their own targets in respect of tackling fuel poverty (DEFRA, 2004); as water poverty is not explicitly accepted as a defined concept, no specific targets are set. Again, it is not believed that this impacts upon any comparisons drawn.

A complex network of organisations exist around the support of consumers in fuel and water poverty. It is worth noting that these networks are frequently subject to change, which may be a particular note as a new government has recently taken office; this consideration is correct at time of writing. The next section considers in more detail the kinds of support mechanisms that are provided by these networks. However, it is worth first considering the incentives that drive such provision. A review of policy indicates that there are two main legislative goals driving the provision of support; environmental impact and social wellbeing.

Environmental Impact

Environmental impacts concern externalities to the supply of fuel and water that impact negatively upon the environment; for the large part, within this context, this refers to carbon emissions. It is difficult to establish incentive links between unmetered water usage and

environmental benefit (see Snell and Main, 2009). As such, environmental impact incentives tend to take on less significance in terms of tackling water poverty. In tackling fuel poverty, however, the review of policy indicates that they are of a high significance; indeed, standards that relate to energy efficiency may prioritise environmental incentives and treat fuel poverty reduction as a positive side effect.

The two major pieces of environmental legislation that apply here are the Carbon Emissions Reduction Target (CERT) and the Community Energy Saving Programme (CESP). CERT was enacted in 2006 (see HM Government, 2006), and places requirements upon suppliers to cut domestic carbon emissions. In line with the Act's commitment to reducing fuel poverty, it is required that 40 per cent of this target be met through delivering measures to vulnerable groups. CESP began in 2009 (DECC, 2010a) and, targets households in designated areas of low income for energy efficiency measures. The focus here, accordingly, is far more linked to fuel poverty reduction than with CERT. However, the scope of CESP is substantially more limited.

A wide body of literature exists establishing the social, environmental and health benefits of energy improvements to housing stock (see Jenkins, 2010; Olsen, 2001; Power, 2008; Roberts 2008). However, a more limited literature also explores concerns about the regressive ways in which such schemes are funded (see Dresner and Ekins , 2006; Feng et al., 2010) and the potential for environmental incentives to be at cross

purposes with those aimed at improving social wellbeing (Powells, 2009).

Social Wellbeing

Social wellbeing is a somewhat vague concept, but in this context – given the nature of the definitions of fuel and water poverty – refers to the ability of consumers to pay for sufficient fuel and water without exceeding the level of spending that would categorise them as being in poverty.

The drive to improve generalised social wellbeing to individuals in fuel and water poverty is likely to be a significant driver, particularly for those without legislative responsibility or economic incentive. One would also hope that this is a key driver behind much government activity. The extent to which it drives suppliers is harder to discern. Whilst many present a strong sense of social responsibility within their corporate identity, the extent to which this actually impacts upon business choices is by no means clear.

Combined Incentives

Initial reviews of organisational literature indicate that it is rare for social and environmental incentives to overlap to any significant degree; most organisations seem to refer entirely to one or the other. One distinct instance in which this does occur is in the case of Local Authorities. The

New Performance Frame Work for Local Authorities and Local Authority Partnerships (DCLG, 2007: 4) offers up a set of 198 measures representing "national priorities for local government, working alone or in partnership". These include, within the 'Environmental Sustainability' outcome:

> NI 186: Per capita CO2 emissions in the LA area.
> NI 187: Tackling fuel poverty – people receiving income based benefits living in homes with a low energy efficiency rating.

(DCLG, 2007: 12)

Each Local Authority works under a Local Area Agreement (LAA) which includes up to thirty five of these indicators; it would seem fair to assume that where both have been selected, schemes operated by that Authority would combine incentives. Further work on the impacts of these NI 187 of Authority behaviour has been undertaken by Hossain (2009). Furthermore, Powells (2009) considers the network complexities that underlie support provision; this research aims to build upon this acknowledged existing research basis around the incentives that drive delivery.

Economic Profit

In addition to these incentives, a third driver of a slightly different nature is identified; that of economic incentives, in the form of profit. Additionally, it is anticipated that this motive may not necessarily

promote the creation of support mechanisms. Suppliers might see strong support for consumers managing their bills as a good way to improve customer relations thus payment habits, but equally they may see heavy-handed debt collection methods as alternate means to the same end (Creative Research, 2009: 78-82).

Economic incentives are easier to understand with regard to suppliers, as regards their responsibilities to their shareholders. This gains some complexity for water companies; as natural monopolies, the role of profit becomes more complex, and are impacted upon heavily by the regulator. Consumer organisations are unlikely to have any profit motivation, and any governmental consideration, i.e., in tax rates, is unlikely to present a significant consideration below Treasury level.

Support Mechanisms

A range of measures that adjust the market exist, or have been suggested, with the goal of reducing fuel or water poverty. Not all of these are judged to be of strict relevance to this work. In this section, I will clarify what is and what is not to be considered, with justifications, and review literature that exists around the included measures.

Excluded Support Mechanisms

For the purposes of this research, support mechanisms are defined as

specific programmes that can be accessed by consumers with the intention of improving their ability to pay domestic fuel and water charges.

This excludes any measures that may be applied to customers regardless of ability to pay; for example, the application of meters, pre-payment meters and smart meters, the Winter Fuel Allowance and the opportunity to change companies. It also does not include or any overarching adjustments to market prices, for example, through cross-regional water subsidies or supply-side changes. Thirdly, this excludes any suggested adjustments that are yet to be implemented, for example, any mandatory social tariff for fuel. These will not be included within this work as there is no option for customers to access them directly and so barriers do not apply. Finally, support mechanisms that aim to tackle poverty in a more general sense are not included; for example, non-specific debt advice and work to promote the take up of benefits. These may feature in the research to some extent, as they often coexist with support mechanisms that are being considered; for example, where advice agencies offer general advice alongside that targeted directly at the fuel and water poor. However, they will not figure as a target of consideration as to do so would broaden this research considerably beyond that of the specific network that supports the fuel and water poor.

Included Support Mechanisms

Having established which potential impacts upon fuel and water affordability are not to be included, it is possible to apply some categorisation as to those which are being included. The previously discussed definitions (see Boardman, 1991; Fitch and Price, 2002) rely upon two variables; household income and expenditure, derived as a function of usage and cost, on fuel and water. Having established this, there can be viewed to exist two principle means by which consumers can be supported out of fuel or water poverty.

Firstly, they may have the efficiency of their home improved so that they can obtain equivalent impact from a lower amount of water or fuel, thus reducing costs. Secondly, they may have their income increased (or bill decreased) so that their water or fuel expenditure is no longer high enough to meet the definition. The two options are enacted via two different types of schemes. For the purposes of this discussion, these will be classified, respectively, as “efficiency improvement mechanisms” and “financial support mechanisms”.

Efficiency improvement mechanisms refer to, in the large part, insulation measures pertaining to fuel. Whilst there are water efficiency measures, those currently available for widespread use do not create any substantial saving (see Snell and Main, 2009). Additionally, whilst solid wall cladding and decentralised energy generation (see Walker, 2008) offer potential in this area, for the most part it is cavity wall insulation

that is currently offered.

Financial support mechanisms exist in two major guises. Firstly, those which increase the income – for example, a payment from government, supplier or a charitable trust – and those which decrease bills – for example, a social tariff. The nature of financial support mechanisms mean that they can be quickly applied, and have the benefit of being linked to the person rather than their house. This means that if the individual moves home, the benefit is able to follow them.

The links of each of these to previously outlined incentives for providing support are clear; efficiency improvement schemes have environmental benefits in, for example, reducing carbon emission. Thus it follows that such schemes will be utilised in meeting CERT and CESP targets. Similarly, financial support mechanisms are quick to enact and focus on the individual, rather than their house; and so it tends to follow that they will used where social wellbeing incentivises action. It should be noted that application of either method does not preclude application of the other. In addition to these two main vehicles for removing individuals from fuel or water poverty, a third, harder to classify, mechanism exists in the form of direct payment schemes; Fuel Direct and Water Direct. These do not, explicitly seek to remove consumers from fuel and water poverty; indeed, as both require users to make a payment for usage, they could potentially have the opposite effect. However, they are designed specifically to support those who have trouble playing their fuel and

water bills (Direct.gov, 2010); thus they meet the predetermined criteria and will be included in this work. Discussion of this is included within that on financial support mechanisms as the impact it has is upon the bill rather than upon the house.

Efficiency Improvement Mechanisms

- *Energy Efficiency Measures*

As previously observed, energy efficiency measures in this context refers predominantly to cavity wall insulation. A range of programmes are delivered to this end (see EST, 2010) including those implemented by suppliers in line with CERT and CESP obligations. The Warm Front Scheme and its devolved equivalents also fall under this category; these are grant packages aimed by government at low income households to support the implementation of efficiency measures.

It should be noted that these programmes have positive impacts both in reducing fuel poverty and in reducing carbon emissions; it is not always clear the extent to which these two different incentives impact upon the delivery of such programmes.

Just as a body of literature exists considering the benefits of energy efficiency measures, work has also been undertaken evaluating the success of these types of programmes (see Stewart, 2008; Healy, 2004)

and, in particular, issues around take-up (see Shortt, 2004; Gilbertson, 2006) One particular identified concern revolves around the difficulties in encouraging older people to take-up insulation measures (see Armstrong, 2006; Wright, 2004).

- *Water Efficiency Measures*

Water efficiency measures in current use consist of household adjustments such as low-flow shower heads and "toilet hippos". These are relatively cheap and can often be administered directly by consumers. However, as mentioned, water efficiency measures tend to be; this is indicative in that no programme of any significance exists to fight water poverty specifically via the implementation of such measures. As observed previously, this is in part because the impact that such measures have upon water bills is not as significant. Secondly, as a majority of households in the United Kingdom remain unmetered, the link between usage and expenditure is not as substantial as that for fuel (Snell and Main, 2009). It might be anticipated that as metering becomes more commonplace such measures will become more significant as a means of reducing water poverty; however, for now they remain firmly secondary to financial support mechanisms.

Financial Support Mechanisms

- *Social Tariffs*

Social tariffs are schemes that offer eligible customers cheaper energy; exact formats vary. All English water suppliers are required to offer WaterSure, the mandatory social tariff for water; Welsh suppliers offer the tariff voluntarily. This ensures that any customer meeting eligibility criteria pays no more than the average household bill for their company, regardless of usage (see Ofwat, 2010). In addition, some opt to offer their own social tariffs to other customers. No mandatory social tariffs currently exist for fuel, though all of the six largest energy companies offer their own versions (see Consumer Focus, 2010a); Ofgem stipulate that such tariffs must equal that suppliers' cheapest deal (EST, 2008).

- *Charitable Trusts*

Some suppliers operate charitable trusts, which offer grants to applicants deemed suitable for such support. The criteria for such grants varies, as does the size of the different trusts. Some are operated directly by the supplier, others are run via external organisations that may group multiple funds together. However, the Walker Review (DEFRA, 2009: 119) noted that "charitable schemes operated by companies serve a valuable role in helping people who are not eligible for any other assistance, and should be continued and introduced where not already in place". That is, people who do not qualify for other schemes could seek help through charitable trusts. This could be particularly pertinent for those who do not quite qualify for wider support, but who have difficulty paying their

bills.

- *Payment Matching Schemes*

A more recent addition to the range of measures available to support those in fuel and water poverty is the idea of payment matching schemes, popularly known as “restart schemes”. The usual format is for the supplier to match – or part match – any payments a consumer makes towards their bill. It may be that this happens continually, or it may be that a debt is paid off once the consumer contributes a predetermined percentage. As such schemes are a relatively new concept, very literature exists discussing their utilisation. They are not yet widely offered by fuel or water suppliers.

- *Direct Payment Schemes*

The Direct Payment Schemes – Fuel and Water Direct – are administered by the Department for Work and Pensions. These allow consumers who are in arrears and in receipt of benefits to pay bills directly from those benefits, along with a contribution towards the existing debt. The scheme is treated as a last resort and uptake has significantly decreased over the last fifteen years (Ofgem, 2010: 36), several organisations promote increased uptake (see EAS, 2010) and research produced by Huby and Anthony (1997) and Ofgem (2010) also encourage increased uptake.

Rationale for this Research

Having reviewed the literature, it becomes possible to identify the research questions that drive the fieldwork section of this research. The questions identified fall under two overarching, though related, themes; translating policy to practice, and comparing and contrasting water and fuel poverty.

Translating Policy to Practice

Previous literature has considered the barriers preventing individuals in fuel and water poverty from accessing available support (see Dodds and Dobson, 2008) and assessed the shortcomings of providers in ensuring that consumers are supported effectively. (see Creative Research, 2009: 83–91).

However, this review of literature has demonstrated the theoretical existence of structural barriers inherent to the unique network that supplies support to individuals who struggle with their fuel and water bills in the United Kingdom. These exist irrespective of the ability of consumers to access support, or the nature of support that is actually provided. Such barriers go largely unaddressed in the existing literature, and it is these that this research intends to address.

This can be translated to a consideration of the gap between policy and practice. The review of literature considered the policy that is in place, but also identified that there is a certain degree of freedom that exists around its implementation. The way in which the support mandated by legislation is enacted in practice, within the prescribed limits, may be influenced by numerous factors; these include, for example, organisational interaction, incentives and market structure.

Having mapped out the policy through a review process, the intention is to conduct fieldwork that will evaluate the ways in which it is enacted in practice. This forms the first overarching research question, which asks:

- How do policy support mechanisms designed to benefit those in fuel and water poverty translate to practice?

To respond effectively to this, reference must be made to four corresponding gaps which have been previously identified. Firstly, that not everybody in need of support receives it. Where lack of access is not dictated by factors independent of the network, the possibility is identified that the network itself creates barriers for certain individuals based upon external factors, for example, where that individual is located; these issues have much in common with those identified by "top-down" theories of policy implementation and failure (see Hudson and Lowe, 2009: 246-249). They will be considered in responding to the research sub-question:

- Is the support provided uniform across the consumer base?

Furthermore, it has been identified that the definitions of both fuel and water poverty are contentious and somewhat impractical in applying support. As there is no simple way of defining and identifying those in need of support a certain amount of discretion exists in the implementation process, particularly where resources are limited. Thus there is the potential for a discrepancy between those who need support, and those who receive it; this will be addressed in responding to the research sub-question:

- To what extent is support available to those who need it?

These first two research sub-questions, it should be noted, relate primarily to financial support mechanisms; energy efficiency schemes are not generally restricted to the fuel and water poor.

In reviewing policy literature, it was observed that there were two main types of support mechanism under consideration; those that were intended to improve usage efficiency, thus lowering bills, and those that either increased income or decreased bills. Further consideration of the existing policy and support mechanisms indicated that there were two main incentives for such policies; the improvement of either environmental impact or social wellbeing. A third driver, economic profit,

was also identified. The relative significance and interaction of these incentives have considerable implications for the way in which policy is enacted by those delivering support mechanisms; these will be considered in responding to the research sub-question:

- What incentivises the provision of support?

Finally, previous work has suggested that water suppliers encounter difficulties in discerning between consumers who “can't pay” their bills and consumers who “won't pay” (Sawkins and Dickie, 2008). This problem is particular to the water industry as consumers may not be disconnected, and so bills tend to be of low priority to those who are both in genuine financial difficulties, and those who are simply unwilling to pay; thus it becomes difficult for suppliers to distinguish between the two (see DEFRA, 2009).

This issue does not arise to such an extent in the fuel industry, largely because, with the exception of vulnerable customers (see Ofgem, 2010), the possibility of disconnection means that it is easier to assume that if an individual does not may their bill, it is because they cannot. However, in terms of producing an effective comparison, it is worth considering any other, previously unidentified, issues that fuel companies face in communicating with consumers in financial difficulty. These issues will be addressed in responding to the research sub-question:

- What is the nature of the relationships between consumers and the organisations that comprise the support network?

Comparing and Contrasting Fuel and Water Poverty

As has been demonstrated, an emerging body of research (see Snell and Main, 2009; Snell and Bradshaw, 2009; Snell et al., 2009) looks to consider fuel and water poverty as related social problems; it is hoped that this work will sit within this as a further contribution. To achieve this, the two will be compared and contrasted through the data analysis process. This gives rise to the second overarching research question, which asks:

- In what respects do fuel and water poverty differ? In what respects are they similar?

For the purposes of this work, which considers structural barriers to support access, this will be considered from the perspectives of both suppliers and consumers, enacted via two different but closely related sub-questions:

- In terms of the support mechanisms available and institutional attitudes?
- In terms of consumer treatment of the two issues?

Secondly, the practical applications of combining fuel and water usage issues as policy problems have already been considered (see EST, 2009). This work will look to build upon the existing literature base by taking account of any emergent possibilities for combining solutions; these will be considered in response to the third sub-question:

- Do opportunities exist to combine water and fuel poverty support mechanisms so as to increase all-round effectiveness?

Chapter Three: Methodology

In the previous chapter, a series of research questions were established; three key questions, supported by sub-questions which serve to operationalise the research. In summary, these were:

- How do policy support mechanisms designed to benefit those in fuel and water poverty translate to practice?
    - Is the support provided uniform across the consumer base?
    - To what extent is support available to those who need it?
    - What incentivises the provision of support?
    - What is the nature of the relationships between consumers and the organisations that comprise the support network?
- In what respects do fuel and water poverty differ? In what respects are they similar?
    - In terms of the support mechanisms available and institutional attitudes?
    - In terms of consumer treatment of the two issues?
- Do opportunities exist to combine water and fuel poverty support mechanisms so as to increase all-round effectiveness?

A qualitative methodological design was developed to respond to these questions, comprising of a series of semi-structured key informant

interviews with individuals working on behalf of organisations that engage, in some capacity, with consumers who are struggling to pay their fuel bills, water bills, or both. In this chapter, the process of developing the methodology will be explored in full, including a justification of choices made. An account will also be given of the fieldwork process, including considerations of ethical issues, analysis, and the extent to which results might be generalised.

Methodological Design

It was decided from the outset that a qualitative methodology was deemed most appropriate in addressing the defined research questions. With reference to Bryman (2008: 21-23), this choice may be justified on several levels. Firstly, this work is primarily inductive in focus, seeking to generate new theories around a previously unresearched topic, rather than test any existing hypotheses. Secondly, it is concerned with the way in which individuals understand the social world; that is, the interactions that impact upon support mechanisms. This is a stance grounded more in interpretivism and constructionism than any positivistic epistemology that would be better assessed via quantitative methods (Silverman, 2010: 11-14). Finally, this research considers a social reality constructed by individuals. The support networks and mechanisms that are in place are governed by those who participate within in the institutional framework; it is not an externalised reality beyond their control. Thus the best way to understand it further is by exploring it with the individuals themselves

(Punch, 2005: 56-58).

Building on this further, in order to understand the structural complexity and internal reality of the systems designed to support individuals in fuel and water poverty, a coherent course of action was judged to be formally interviewing the individuals who work within those institutions. Accordingly, the adopted research methodology was that of conducting key informant interviews with individuals working within those support structures designed to assist consumers who encountered difficulty in paying their fuel and water bills.

Beyond the recognised potential of this method in gathering broad information about policy networks, key informant interviews are also recognised as a time-efficient means of gathering high quality, detailed data from knowledgeable sources who are often more than willing to talk about their professional experiences (UCLA, 2010). Additionally, as participants in this type of key informant investigation are contributing on a professional, rather than a personal, level, the potential for ethical difficulties is reduced. However, care must be taken to ensure that participation does not impact upon career prospects. Key informant interviewing is commonly used in situations where participants might be reluctant to talk, or where research is attempting to understand the way in which a policy network works by talking to key actors. Both of these factors play into this work, to some extent

There are two main research scenarios whereby this method tends to be adopted. Firstly, where the group under consideration is particularly inaccessible, either due to ethical restrictions or unwillingness to participate (see Burns et al., 2007). In these cases, key informants are used essentially as proxies to gain access to the experiences of unavailable individuals. This approach is used frequently by ethnographers (see Bernard and Ryan, 2010: 372). Secondly, the method is used frequently by researchers who seek to understand the nature of a particular policy network (see Riddell and Weedon, 2009). In some sense, these two applications are related in that policy networks bear certain similarities to restricted networks. For example, they may be difficult to access due to commercial sensitivities and closed institutional structures. They may also be subject to their own norms and values in the form of fixed organisational working practices. Generally speaking, though, it is the latter rationale that is more pertinent as this research seeks to uncover more about the nature of a particular network, i.e., that which exists to support individuals in fuel and water poverty.

One widely recognised impediment when conducting key informant interviews is in accessing participants (University of Illinois, 2010). By their very nature, key informants within policy networks are likely to be busy people who potential hold some seniority within their organisation, and so availability for interview could be problematic. To combat this, it was important to be as flexible as possible when proposing interviews; this is discussed further in the next section. A further concern around the

key informant technique (see University of Illinois, 2010) is around generalisability. It is acknowledged that selecting informants that accurately represent the diverse range of opinions that exist within a policy network poses a potential challenge, and that some informant. This issue will be considered further in the final section of this chapter, which discusses the generalisability of my methodology.

Bernard and Ryan (2010: 371) note the importance of allowing key informants to hold forth on subjects in which they have a high level of expertise. They also observe that key informants, as interviewees, can be made aware in precise terms of the categories and themes under investigation and offer their own judgements upon these. This advice informed the interview process. Semi-structured interviews were used, as they allowed interviewees flexibility to talk about issues that they felt important, but some structure in terms of ensuring discussion maintained an awareness of research questions. Particular efforts were also made not to compel interviewees towards any particular conclusions; for example, when asking about organisational incentives, participants were initially encouraged to offer their own thoughts, rather than being directed to those incentives previously highlighted in the literature review. A sample topic guide is in Appendix 1. Note that, as participant organisations were of rather different natures, topics viewed to be irrelevant in any specific case were disregarded.

Participant Sourcing

In order to gain insight into the roles of institutions that engage with consumers who struggle to pay their fuel bill or water bills, the intention was to source participants from a range of organisations spread fairly equally across the water and fuel sectors. The initial target number of interviews, derived with reference to practical constraints, was fifteen.

Mapping the Network

To identify relevant organisations, a mapping process was undertaken in the first instance. The aim of this was to produce a complete list of every organisation that explicitly sought to work with individuals encountering difficulties in paying their fuel or water bills. This included all suppliers, regulators, charitable trusts, special interest groups, consultancies, relevant government departments and agencies and consumer support group. This list was informed by personal experience, the literature review process and further internet searches.

It should be noted that this research is by no means a priori as it forms part of a body ongoing research within the Department of Social Policy and Social Work at the University of York (see Snell and Main, 2009; Snell and Bradshaw, 2009; Snell et al., 2009). The use of search engines such as Google proved particularly useful in mapping specifics, for example, identifying fuel companies that are currently in operation. An indication as to how this mapping process was organised is included as Appendix 2.

Once this mapping process was complete, the list was used to guide the participant sourcing strategy. As mentioned previously, practical limitations meant that a target of around fifteen interviews had been deemed viable. In view of this constraint, the list was used to try and ensure that the final participant group met the requirements of the chosen methodology. In order to achieve this, the list was reviewed to identify "priority organisations"; those whose input was deemed particularly crucial to developing a strong answer to the identified research questions. These might include, for example, those responsible for delivering a major source of support or organisations that fulfil a unique role within the support network; for example, regulators and the consumer support quangos mandated by legislation.

In some cases, many examples of one type of priority organisation existed; for example, there are around twenty different energy suppliers active at time of writing. A purposive sample (Bernard and Ryan, 2010: 365-366) was taken that reflected the make-up of the network map. For example, ensuring that both small and large suppliers were contacted. Another special case whereby a very large group of priority organisations existed was that of Local Authorities. In this case a degree of pragmatism was involved; the sample was more one of convenience (see Bernard and Ryan, 2010: 366) in that Authority selected was one local to the research. To try and ensure that the data gathered would be relevant, it was checked that this Authority had opted into at least one of the previously

discussed National Indicators 186 and 187 (see DCLG, 2008) as part of the LAA.

As recognised previously, key informant interviews present a particular challenge in terms of access to potentially busy, high profile individuals working in commercially sensitive industries. Accordingly, it was accepted that there was a strong likelihood of individuals contacted either not responding or being unable to participate. In recognition of this, the participant sourcing strategy operated in a series of "phases". In the first instance, only the eighteen organisations designated as being of priority were contacted. This number was slightly over the target number to take account of the identified potential for access problems, but was not so large as to make interviewing all infeasible should the response rate be particularly high.

Making Contact

On selecting an organisation for involvement, further internet searches were used to establish how contact with an appropriate participant might best be made. An issue did emerge here, as there was considerable disparity in terms of ease of access. For example, many corporate websites choose not to publish staff email addresses online, instead facilitating contact by means of an online form. Many also offer only two avenues of enquiry; consumer queries on their public websites, and media enquiries via corporate websites. It was decided which avenue of

access was most appropriate on a case-by-case basis; this may have had an unintended impact upon interviewee selection. It is recognised that this method of sourcing and contacting organisations might be seen to exclude those without a maintained internet presence. However, in reality the ubiquity of internet access for organisations of any size means that this effect is negligible at best.

This work constitutes part of an ongoing body of previously-funded research, and accordingly some links with organisations were already established. In a small number of cases, these were used to make contact with interviewees. It is accepted that using such links could potentially introduce a small amount of bias into the participant group. However, given the acknowledged access issues, it was deemed that the benefits of being able to make contact with priority organisations outweighed the costs.

Following initial contact, a period of one week was allowed for responses, following which a second phase of emails were sent to alternate organisations, as well as to alternate choices from the priority group where that option existed, i.e., energy suppliers. Again, the number of emails sent in this phase took account of potential for lack of response, but allowed that all interviews were feasible if uptake was high, or if organisations from the first phase did eventually respond. Following another week a final, more restricted, set of emails was sent, this time specifically aimed at targeting perceived gaps in the established

participant group. Within this phase, some second attempts at communication were made with previously included organisations via different avenues, for example, use of a different email address.

On occasion, an organisation took longer than one week to respond, for example, due to an individual being on annual leave; in these situations, responses were followed up for interview. In some instances, interviewees offered up contacts who might also be interested in participating in the research. Where this occurred, the suitability of the contact to the participant group and the potential for bias were objectively considered, and the offer accepted or declined accordingly.

Once contact with an organisation was established via email, an interview appointment was made. Whilst in some cases it was possible to contact a specific individual about participation, in the majority of instances a general contact was made and then an appropriate participant was referred by the organisation. Email correspondence maintained a professional tone, acknowledged that participants were busy individuals and made clear how much their involvement was valued and appreciated. With reference to Bernard and Ryan (2010: 371), the aims and themes of the project were explained in detail to enable participants to contribute in as informed a manner as possible; please refer to Appendix 3 for a sample email introducing the project and requesting participation.

Organisational structure and relationships would presumably have an

impact upon who was selected by that organisation as an appropriate candidate for interview, and thus impact upon results; however this was beyond the control of the research process. In most cases, it was perceived that organisations who were willing to participate sought to provide contact with the individual within their organisation that they felt was best placed to respond. In a limited number of cases interviews were immediately refused; in all instances, this was because the organisation commented that their contribution would not be of use.

As a final observation, it had been anticipated that it might be harder to find people engaged in supporting those who had trouble with their water bills, reflecting the fact that this issue has a lower profile than the support of those in fuel poverty. In practice, however, this was not an obstacle. In fact, those involved in working with water customers were in some respects slightly more enthusiastic to participate, with some indication that they felt water poverty had been previously being under-researched and of comparatively low priority in the eyes of policy makers.

Fieldwork

Following the participant sourcing process, the final fieldwork conducted consisted of 15 interviews, encompassing 21 different individuals. For the most part, interviews were conducted by telephone on a one-to-one basis. However, in view of the difficulty of sourcing participants for key informant interviews, some flexibility was accepted in terms of interview

methodology in order to secure interviews. Indeed, in the first instance telephone interviews were selected as the default method based upon their efficiency and convenience (see Bryman, 2008: 198). This is of particular priority given that, in the very nature of this participant group, they were busy individuals geographically scattered across the United Kingdom.

There are some cons to conducting telephone interviews (Bryman, 2008: 198-199), but these were judged not to impact particularly upon this project. Equally, given the access issues and geographical spread of participants, this was the only way to make the research practicable. Given the roles of interviewees, all were accustomed to telephone-based discussion and accessible. Additionally, as the questions were not of a personal nature, there was no particular concern around observing facial expressions or coaxing out more personal answers, both of which would have been easier in person.

In a small minority of instances, individuals expressed a preference for in-person interview; this was generally either because of practicality, or because they were more accustomed to face-to-face meetings. Similarly, a small number organisations preferred to have more than one individual interviewed at any one time. The reasons for this were either practicality, or the desire to combine the insight of more than one individual working for the organisation in different capacities to present a more complete picture. As before, this amendment to the standard procedure was

complied with. In both cases, recognising acknowledged access issues, these requests were met in all instances.

Interviews undertaken in person are generally longer than those conducted on the telephone (see de Leeuw, 2008). Interviews taken with more than one person may also offer different potential as to the dynamics involved (Punch, 2005: 171-172). However, again, access issues prioritised taking the interview over ensuring strict consistency of method. The nature of the interviews also lessened cause for concern in this respect; all participants in group interviews were working for the same organisations so – it may be presumed – shared similarity of outlook and agenda. Even if this were not the case, this research is more concerned with the interactions between organisations than internal dynamics.

Whilst the variations in interview methods were not ideal, it was judged that it was preferable to take interviews under adjusted conditions than to risk losing access entirely. By remaining aware of the recognised differences between the different interviews during the analysis phase, every effort was made to ensure that impact upon results was minimal.

As recommended by Silverman (2010: 197), the first interview was treated as a pilot study to ensure effectiveness of question choice and interview style. The pilot also allowed for the resolution of any potential practical difficulties, for example, in establishing correct usage of the

digital recording device, and ensuring the interview lengths indicated when contacting participants were accurate.

Ethical Considerations

In undertaking this research, the four key ethical principles identified by Diener and Crandall (1978) were considered to ensure that no transgressions occurred. These principles are; harm to participants; invasion of privacy; lack of informed consent; deception. In addition, it was ensured that the work abided by Departmental and University standards for ethical conduct; the Economic and Social Research Council's Research Ethics Framework (ESRC, 2010) offered further guidance. Departmental ethical approval for this project was sought and received in advance.

No participants were perceived to be particularly vulnerable, as each was speaking primarily in their capacity as representative of an organisation rather than offering a particularly personal perspective. Thus harm to participants was not judged to be a particular risk when conducting this work. By the same token, as the research did not consider the private lives of individuals, there was not judged to be any significant potential for invasion of privacy.

All participants were informed verbally before beginning their interview that proceedings would be tape-recorded and that whilst their opinions,

contributions and quotes might be included, they and their organisation would remain fully anonymous in any work produced. Each participant returned an informed consent form indicating that they had understood and agreed with this policy. This process was designed to ensure that involvement could not impact negatively upon any participant's career. For a template consent form used in conducting this research, please refer to Appendix 4.

In terms of ensuring that no deception occurred, every effort was made to ensure that the work was as transparent as possible. Indeed, a high level of clarity was intrinsic to the use of the key informant technique. Firstly, in giving participants a clear understanding of the nature of research, they were better able to understand the sort of contributions that were relevant, and so could provide higher quality data. Secondly, many participants were interested in the outcomes of the research as it had relevance to their professional activities; accordingly, it was important to be very clear about the aims of the work and the expected format of outputs.

Whilst strict confidentiality was observed in every case without exception, it is interesting to note that there was a deviation in attitude to this policy across the participant base. Whilst some individuals were unconcerned about confidentiality, both in respect of themselves and of their organisation. However, other organisations stated a strong preference not to be named, generally stating fear of perceived bias within their

industry role as the reason for this. Furthermore, some individual interviewees appeared to be more open once it was confirmed that they and their organisations would not be named, perhaps otherwise worrying that their responses might have an impact upon their employment.

Analysis

All interviews were transcribed verbatim from digital recordings made during the field work process. Every effort was made to ensure accuracy, however, following guidance from Silverman (2010: 212) in reference to research of this nature, the emphasis was placed upon what was said as opposed to the way it was said.

Following transcription, all interviews were coded with the aid of TAMS Analyzer, a computer-assisted qualitative design designed to support this process (see TAMS Analyzer, 2010). Computer-assisted analysis has its supporters and detractors. Some view that it is unnecessary and potentially narrows scope (see Seale, 2010: 257). The objection that it does not easily facilitate close examination of small data extracts applies more to conversational analysis where detail is required. In this instance it was found to be an efficient means of coding large amounts of data and quickly extracting thematic links.

The coding process itself was a hybrid of a priori methodology (Weber, 1990) and thematic analysis (Reissmann, 2008: 53-76). Some categories

applying directly to certain support mechanisms and themes relating to specific research questions were established in advance of coding. However, on some occasions themes emerged that were not satisfied by the predetermined category set; these were then added and applied again to all transcripts. This means of analysis was deemed appropriate in both responding to the predetermined research questions, whilst still allowing for unanticipated theories do be generated in line with the inductive framework that guides this research. For a table of categories utilised, both those predetermined and those created during the analysis process, please refer to Appendix 5.

Following analysis and write-up, some participants requested to view early chapter drafts to provide reassurance that confidentiality had been maintained when quoting directly. This was allowed and also had the inadvertent, but positive, impact of acting as a "laugh test" (Meiners and Goss, 1994) or "sniff test" (Hamermesh, 2000: 374); showing findings to participants to check that analysis has not construed anything so outlandish as to be seem absurd when viewed from their perspective. Participants did not flag up any material as failing this test.

Generalisability

It is recognised that there exist restrictions as to the generalisability of this research. However, the goal of this work is to generate theory around an area that is largely unknown. Currently, there exist no theories to test;

this work seeks to produce hypotheses that further investigation may prove or disprove. Using key informants as a window into a social world for these means is believed to be a justifiable method of research so long as limits are recognised. Assessment of the generalisability of this work, such as it exists, is guided in large part by Bryman (2008: 31-32; also Silverman, 2010: 275-278).

This methodology has sought to give sufficient detail around those methods employed in conducting this research that it is reliable and should be replicable by other researchers if so required; however, this quality is generally more highly valued as a means of establishing generalisability within the quantitative methods (Bryman, 2008: 32).

There do exist some concerns as to the validity of this data; that is, whether the results observed are indicative of wider phenomena or merely apply to the few cases selected here. Three main issues can be highlighted. Firstly, the use of the key informant interview as a means of investigation. It is acknowledged by Marshall (1996: 93) that "informants are unlikely to represent, or even understand, the majority view of those individuals in their community." Despite every effort to ensure that interviewees were representative of the network make-up, this is accepted as a potential, if somewhat unavoidable, shortcoming of the methodology selected.

The second concern lies in the use of purposive and – in a single case –

convenience sampling to select participants. This process is to some extent subjective, and different choices in both conscious selection and random sampling could well have resulted in a different group of participant organisations, thus different interviewees and so different results and emphasis in conclusions. This is recognised as another potential weakness in the methodology selected.

Finally, this work seeks to contribute to an ongoing body of research at the Department of Social Policy and Social Work at the University of York (see Snell and Main, 2009; Snell and Bradshaw, 2009; Snell et al., 2009). This means that this work has been conducted a priori, offering some potential for researcher bias. However, this is unavoidable and it is anticipated that this background will contribute to, rather than detract from, the success of the work; for example, in providing links to otherwise accessible participants.

Despite the acknowledged concerns, the overriding belief is maintained that this research is valid and reliable to an extent that fits its purpose; that is, the generation of theory through conversation with a select group of key informants, which may then be tested in future, more widely representative, research. Silverman (2010: 289) argues that given the acceptance of a social world in flux inherent in qualitative research, strict accuracy of measurement cannot and should not be expected. Bernard and Ryan (2010: 366) further observe that whilst such a methodology may not offer much basis for evaluating the extent of issues, it is

worthwhile in discovering that they at the very least exist; that is the value drawn in this inductive method.

Chapter Four: Results

This section gives an overview of the issues that emerged from the qualitative data analysis. The first four sections address the first research question, considering issues around the uniformity of support and the extent to which support is available to those who need it. The incentives that drive the delivery of support are discussed and the nature of the relationships between consumers and support-providing organisations is examined. The final section addresses the second and third questions; fuel and water affordability and support networks.

The theoretical framework underlying this analysis was drawn from microeconomic theory. This serves, in part, as an appropriate means of describing the way in which markets interact and create structural barriers. This theory draws upon ontological assumptions appropriate to the consideration of this market; for example, the fundamental aim of suppliers to maximise profit. Applying such theory to similar situations has been observed elsewhere, for example, within carbon emissions training. This framework speaks within the terms used by those operating within the market themselves.

Uniformity of Support

The initial research question addressed whether support provided to individuals in fuel and water poverty was uniform across the consumer

base. This responded to an initial review of the support programmes available, and the observation that these would theoretically create disparities in the levels of support available to consumers.

There existed a general consensus from interviewees that water and fuel companies had a good understanding of their legislative responsibilities to consumers and the penalties for failing to meet these requirements. It was also broadly agreed that regulators fulfil their mandated role in ensuring that these are upheld. However, where the provision of support was not a legislative requirement, there were perceived to exist significant disparities in availability tied to structural issues. Thus the level of accessible support can vary significantly based upon consumer status in respect of a range of criteria. Analysis identified three key factors as impacting upon the level of support available to any consumer; these were, geographic location, supplier and the point at which the consumer accesses the support network.

Geographic Location

As recognised in the policy literature review, legislative differences were perceived to exist between the devolved regions and, as might be expected, these create some variation in the support available, for example, between residents of England and residents of Wales. The differences between Local Authorities observed in the review of policy literature were also borne out by the experiences of interviewees, i.e.,

that Local Authorities who had opted into NI 186 or NI 187 (see DCLG, 2008) would be more enthusiastic in the creation and operation of support mechanisms designed to tackle fuel poverty than one who had not.

Crucially, in the case of water, geographic location and supplier choice are inextricably linked through regional monopolies. Thus any variance in quality for consumers is inescapable; they are unable to merely switch suppliers as this is prescribed by location. In this section, the issue will be discussed in relation to WaterSure as this mechanism is distinct to water. However, geographic location and supplier choice do impact upon other water support measures that also exist to support customers in fuel poverty; consideration of these alternate mechanisms will be included in the next section, which concerns the impact of supplier upon access to support mechanisms.

The diversity in WaterSure take-up numbers previously observed (Ofwat, 2009) was largely attributed by interviewees to differing levels of commitment on the parts of the different water companies in promoting the scheme.

> *"We do have some concerns over take-up... we do think there is a lot more water companies could be doing with the tools that are currently available to them."*

These findings indicate that geographic location have a significant impact upon the support available for consumers where they are tied to local legislation, for example, between devolved administrations and Local Authorities. It also suggests that access to support differs between water companies as regional monopolies continue to dictate supplier This issue could be interpreted as a form of "postcode lottery", similar to those commonly observed in health (see Bungay, 2005) and education (see Mangan et al., 2010). Further work in mapping the availability and nature of support on a geographic basis could prove instrumental in addressing such inequalities.

Supplier

This research found that, in terms of the discretionary support work that is carried out above and beyond legislative requirements, suppliers differ greatly. The mandatory social tariff available to water consumers has already been considered; no such mandatory tariff exists for fuel consumers. This section will consider other social tariffs, including those additional tariffs that are offered by water suppliers. It will also consider the other support mechanisms outlined in the literature review.

Charitable trusts are not a legislative requirement in either the fuel or water industry and do not exist uniformly. Thus access to this support was observed by interviewees to differ based upon supplier. It was also found that charitable trusts differ significantly, for example, in w the

amount of money held for distribution, the means by which applications are assessed and the types of individual they seek to support.

A similar lack of uniformity was also observed across supplier-driven energy efficiency schemes. Whilst CERT obligates that suppliers meet 40% of their total target by delivering measures to a 'Priority Group' of vulnerable and low-income households (see HM Government, 2008), there will accordingly be up to 60% of consumers meeting this description who do not receive support under the scheme. Though, as previously noted, water efficiency schemes are a far lower policy priority than energy schemes, there was also some indication that some suppliers may be more active in promoting such measures than others:

> *"I think that companies where there is greater water resource issues may have a stronger message in terms of advising customers to consider meters."*

Another cause of discrepancy identified in this research stems from the ways in which different companies utilise external organisations as part of their work to support consumers. Whilst organisations like the Citizens Advice Bureau and Age UK operate nationally, fuel and water companies were found to often invest in local branches; for example, in funding the placement of an advice worker.

> *"We're working with the (fuel company) pilot project at the*

moment, they've got this support tariff for just this financial year."

However, such investment is not universal, introducing further potential for disparities in support. Whilst water companies have the advantage of being able to focus on agencies in their own region, energy companies face a greater challenge of coverage, in that their scope is national. Whilst they do still offer funding to local organisations to support consumers, this was perceived to be inconsistent across suppliers.

"I'd far rather say to a client, "Look, just ring up this company, you'll get all the help you need." I can do that... I know from colleagues of mine around the UK, they would not have that relationship with their local companies. So I think there is still a long way to go."

The indication, from interviewees, was that fuel supplier-driven support tends to be located in areas where the individual energy companies find their pre-privatisation roots and thus more established customer presence. Whilst this would seem a rational approach, it does present the possibility of two customers of the same company receiving different levels of support dependent on location. Even changing to a more locally prominent supplier would not necessarily resolve this, as energy companies are perceived to differ in the extent to which they fund such activity; this might then translate to a geographic discrepancy similar to those discussed previously in relation to water supply.

A final finding relating to supplier choice applies specifically to the fuel industry. Unlike the water industry, domestic fuel supply is dominated by six suppliers popularly referred to as the "Big Six"; these suppliers tended to be the focus of interviewees concerns. However, some interviewees felt that it was important not to overlook the role played by these smaller suppliers, especially as in some cases they might look to target the fuel poor.

> *"You've... got some small suppliers that have targeted pre-payment customers... or have set up with new developers...and a lot of those new developments might be housing associations where there's a higher propensity to be fuel poor."*

Further research into affordability issues as they relate specifically to these smaller suppliers may well be of practical use in developing future policy.

Whilst technically fuel consumers are not restricted in their choice of supplier, there are concerns that there is a low propensity for those who have trouble paying their fuel bills to move suppliers.

> *"There seems to be some evidence that people will switch once and then get bored and stay."*

This could partly be attributed to those with a debt of over £200 are unable to switch suppliers until that debt is cleared (Uswitch.com, 2010). However, other factors may also play into it; for example, a lack of knowledge and understanding, wishing to hide from the debt, literacy barriers. The market behind the supply of domestic fuel relies upon consumer mobility; if this is impeded in low income consumers, there is a potential for market failure that will impact primarily upon those least able to pay. Further consideration of this issue presents an opportunity for research that may be extremely useful in guiding regulators. This issue could translate further to become an issue of geographic inequality, where suppliers have ties to particular regions stemming from pre-privatisation (see OFGEM, 2010); again this could factor into any future research. A mandatory social tariff for fuel could go some way to alleviating this kind of problem; this is supported by organisations such as Consumer Focus (see Consumer Focus, 2009) and even some fuel suppliers (see The Guardian, 2008).

Access Point to the Support Mechanism

The previously identified causes of discrepancy impacted upon the very availability of support mechanisms. Further to this, an inconsistency was identified to exist even where such support was accessible to the consumer. Interviewees repeatedly cited cultural differences between organisations as impacting upon consumer support experience. This incorporated internal policies around advice and support, debt collection

and but also individual personality dynamics.

> *"If you're asking about... day-to-day working relationship, I mean a lot of that will be personality driven; it'll be different depending on the personalities as well as the actual companies' policies."*

These cultural concerns are admittedly rather nebulous and particular to no one organisation. The regulators, Ofwat and Ofgem, in partnership with organisations such as Consumer Focus, Consumer Direct and CCWater operate consumer complaints procedures with reference to suppliers, reviewing contacts and raising any consistent concerns with the organisations in question. A link exists with a previously identified barrier, the lack of awareness of support mechanisms (see Dodds and Dobson, 2008). The point at which a consumer accesses support might impact what they are told and what they are not, for example, some advisors might have more experience than others.

> *"The people that consumers would get on the end of the phone just aren't properly briefed about who potential beneficiaries are and what schemes are available."*

Analysis

Whilst analysis of qualitative data has found that generally support

mandated by legislation does operate as required, it has also been found that support delivered on a discretionary basis is far more variable both in terms of which consumers may access it, and the nature of support delivered. The actual support available is primarily a factor of geographic location and supplier choice. As far as water supply is concerned, these are inextricably linked by the presence of regional monopolies; for fuel, also, there exist some geographic impacts upon the support offered by suppliers. Beyond the existence of support, there were also found to be discrepancies in the type of support received based upon the point of consumer access.

The intention of releasing domestic fuel and water supply to market forces was that increased competition should ensure better standards of delivery at a lower price to consumers than those achieved by public delivery. Given the essential nature of the goods in question, regulators were introduced into both models to ensure equitable access for all; this is largely achieved through the enforcement of license conditions. This research indicates that the regulators, OFWAT and OFGEM, work effectively to enforce license conditions. It is also recognised that regulators do strive to ensure that any issues that arise are addressed via license conditions where deemed appropriate. However, this research indicates that some inequality in support does exist within the discretionary support offered above and beyond that mandated by license conditions. It is hoped that this work will be of some value in guiding the future considerations of policymakers, for example, in

investigating the possibility of enforcing a mandatory social tariff for fuel. In addition, some potential avenues for future research have been indicated.

Consumers Who Fail To Qualify For Support

The initial research question sought to explore the extent to which support was available to consumers who needed it; this was linked to the previous research question concerning the uniformity of support available. The findings of this research confirmed that this issue was worthy of concern, and charitable trusts were identified as a central means of supporting those who failed to qualify for tariffs or payment matching schemes. Additionally, concerns were raised by some interviewees about the regressive means by which some supplier-driven financial support was funded.

Charitable Trusts

Charitable trusts were viewed by several interviewees as offering a potential means of helping those who had failed to qualify for social tariffs. In particular, they were viewed as able to help individuals who would usually be manage to pay their bills, but as a result of a specific situation have found themselves unable to meet these costs; indeed, some charitable trusts identify this particular group as a priority. The type of individuals who could be moved into difficulties by a one-off

situation are likely to include those on the threshold of being able to receive other forms of support. Additionally, charitable trusts were viewed as playing an important role in preventing one-off situations spiralling into a position whereby the individual would require more prolonged support.

> *"They've come probably to a point where some one off circumstance... has taken them off their normal path where they're just scraping along... our job is as they go over the waterfall is to scoop them up and put them back on the bank."*

However, it was observed by some interviewees that the economic recession could hinder the ability of charitable trusts to help those on the verge of qualifying for tariffs. Charitable trusts are generally funded by suppliers, and the pool of money available is limited. With recession has come an increase in consumers applying to trust funds following redundancy from comparatively high-paying occupations. Such consumers present desirable candidates to charitable trusts, as they tend to have good previous paying habits, are able to fill complete forms to a high standard, and have good future employment and income prospects. However, an increase in the number of such applicants was viewed to have a potential knock-on effect for more traditional candidates for charitable trust support; they could crowd out those whose proximity to fuel or water poverty is a more permanent concern. Further research into this could be allied with work around the roles that charitable trusts

occupy in the support network.

Regressive Charging

The next section will consider in detail concerns that the funding of energy efficiency measures tends to be regressive. However, regressive charges were also identified by interviewees as applying to financial support mechanisms. Whilst this should not impact negatively upon those customers deemed eligible for support, as they will be net recipients, interviewees highlighted that those who narrowly miss out on qualifying could be pushed further into poverty by contributing to support for others. This presents the concern that the affordability problem could merely pushed upwards to another group of consumers.

> *"The likelihood is it would push the affordability problem up two rungs on the ladder... transferred up to the next tier of people who are just above the help limits, and they're already struggling and now they're paying for other people as well."*

Further quantitative research could clarify the extent to which this problem exists, and provide guidance for policymakers in combating it.

Analysis

This research has highlighted the important role played by charitable

trusts in filling gaps left by other financial support mechanisms. It also highlights some of the barriers they faced given increasing volumes of applications through economic recession. It is believed that this research contributes to the case for increased adoption of such trusts by suppliers. Furthermore, the findings of this research concur with previously identified concerns around regressive charging; these need to be addressed if equitable distribution is to be achieved.

Incentives Driving Support Delivery

The research question presented sought to uncover the nature of the incentives driving the delivery of support to individuals in fuel and water poverty and the impacts that they had upon support mechanism formation, implementation and delivery.

The initial review of policy literature suggested that legislation and resultant support mechanisms impacting upon fuel and water poverty tended to respond to two identified policy goals; reducing environmental impact and improving generalised social wellbeing. A third factor applying primarily to supplier-driven programmes was that of economic profit; this can be integrated into discussion of the other two incentives as it has been found to interact significantly through the accounts of interviewees. As previously noted in the chapter on methodology, when discussing incentives with interviewees, questions were structured so as to prompt them to offer their own opinions on the incentives driving

support mechanisms; suggestions were not offered unless previously identified by the interviewee themselves.

Findings upheld the observation that social and environmental objectives are the main drivers behind existing support mechanisms. In the vast majority of cases only one of these incentives was observed to apply; though providers were in all instances aware of both outcomes, they tended to cite one or the other as the prime motivating factor, even where both were formally considered. The incentive was generally tied to a particular legislative responsibility or – where no responsibility existed – an organisational goal. However, the structural dynamics of the network providing support impacted significantly upon their real impact.

Environmental Incentives

Fuel and water industries were found to differ significantly as to their dynamics in respect to environmental incentives. As previously observed, efficiency measures – the support mechanism with the most obvious environmental impact – are of a much greater significance in relation to fuel usage.

Interviewees generally felt that it was environmental legislation – namely CERT and CESP – that proved to be the greatest driver for the work undertaken by fuel companies. These, in turn, were driven by an underlying economic incentive as there are financial penalties for failing

to meet these obligations. Several interviewees expressed concerns that where supplier-lead programmes were driven primarily by environmental incentives there existed a strong potential for negative social impacts to arise elsewhere. It was observed that energy companies tend to absorb the costs of the schemes operated to meet their environmental obligations into domestic energy bills. In this sense the charges tend to be regressive, thus there is a risk that the resultant increase could push some individuals into fuel poverty.

> *"It's environmental incentives, yes, that certainly drive it and part of the issue with it is the impact of the way the money for climate change is actually being collected from bills. Because it is by its nature very regressive... our concern has always been that people on low incomes are very minor beneficiaries for the carbon emission reduction target, which is obviously what's coming out of bills."*

Compounding this concern was the recognised tendency for such schemes to target those who lived in larger houses, as they would tend to have greater potential for emission reduction.

> *"We used to get a fair bit of criticism for targeting the fuel rich people, but it was more that they were the ones with biggest carbon output."*

The potential for such programmes to prioritise the fuel rich is acknowledged in legislation (see HM Government, 2006; DECC, 2010a). Additionally, this policy is continually under evaluation as to ways in which effectiveness might be improved, for example, addressing previously recognised concerns (See Consumer Focus, 2010b) through forthcoming changes to the CERT priority groups (See Sustain, 2010). However, this still means that some poorer consumers will not receive support despite contributing to costs through their energy bills. A potential avenue for future work could be in uncovering which priority group households are targeted, and why. Given the findings of this work, it might be fair to assume that these reasons are rooted in economic grounds; thus those homes that are more expensive to treat – including those with solid walls, limited loft space or in rural locations – would be of lower priority. Further research could explore this concern more thoroughly.

One interviewee offered a new consideration about billing clarity to existing issues, which generally concern the way in which usage costs are communicated (see OFGEM, 2010).

> *"I think again a key thing there is that there's so little information available about how that money is being used... it's also quite important for customers to know the flip side of that and how they can benefit."*

This suggestion could be useful in offering further clarity around the way in which carbon emission reduction measures are funded, and perhaps could be embraced by policymakers

The Warm Front Scheme tends to be the primary example of a non-supplier lead energy efficiency programme, and specifically targets low-income households in England; similar schemes operate in Scotland, Wales and Northern Ireland (Warm Front, 2010). Warm Front does not counter the potential for regressive charging in energy bills by fuel companies. It is also limited in the help that can be provided to harder-to-treat homes; for example, it does not provide insulation for solid wall homes (Warm Front, 2010) that, as previously suggested, fuel companies might overlook. However, Warm Front and similar schemes may go some way in ensuring equality of access to home energy efficiency measures for the fuel poor. At the time of writing, though, interviewees feared that Warm Front may be under threat of being retracted under recessionary budget cut; concerns were expressed as to the impacts this would have upon fuel poor consumers.

> *"The climate change policies... are effectively quite regressive in the way the money is collected. And the one scheme that's left that isn't is the one that's under threat, which is Warm Front, which is aimed at people on particular benefits."*

Social Incentives

As discussed previously, there are very few schemes designed to help consumers in water poverty with significant environmental links. Similarly, financial support mechanisms for individuals in fuel poverty tend not to have clear positive environmental impacts. For both, these include social tariffs, payment matching schemes, and grants. This type of support, as established previously, tends to be delivered via either suppliers or by a governmental body.

Interviewees perceived the primary driver behind such mechanisms to be delivered to be legislation, i.e., a supplier or a governmental body is mandated to provide a certain kind of support. A separate case is that of independent bodies, generally charities, who may offer support to individuals in fuel or water poverty. These will likely do so because it allies with a stated organisational intention, for example, "to improve the policies and practices that affect people's lives" (CAB, 2010).

Whilst the need to abide by legislative requirements – which incorporates, again, the economic incentive of avoiding disciplinary fines – forms an intrinsic inducement to supplier behaviour, there was indication from some interviewees that companies have become aware of their social responsibilities towards consumers, and this was increasingly driving their work with consumers struggling to pay fuel bills.

"I think a lot of them do have a genuine desire to help their

customers. It helps their business overall if they've got happy customers."

Further to this, several interviewees reported that suppliers were increasingly understanding the economic benefits of offering consumers financial support, not because it allows them to avoid fines, but because it can prove more profitable in the long term.

"II would say earlier than that it was much more about, "Let's tick the box for the regulators."... I do genuinely think that is changing... I think the prime motivator is that they are actually beginning to see benefits themselves to supporting their most vulnerable customers."

Payment matching schemes were singled out by several interviewees as offering particular potential for future implementation. Whilst such schemes have not yet been widely adopted, interviewee experience of them was overwhelmingly positive.

"Evidence to date shows that they are working, these customers that are being put on these assist type tariffs are actually managing to keep up their payments."

Whilst suppliers do not get the full payment from such schemes, they will receive some payment; this is generally a better financial than the

alternative of no reimbursement and added legal costs in pursuing debtors. This research indicates that there could be significant benefits to the widespread adoption of payment matching schemes.

Many interviewees indicated that channeling supplier funds into structured financial support was perceived to have both social benefits for consumers in fuel and water poverty, as well as offering a better economic outcome for suppliers in the long term. An example offered was that of supplier-supported charitable trusts which, whilst creating some initial costs, have generally proven to be worth the continued investment for the suppliers who operate them.

It was reported by several interviewees that consumers who had received help from suppliers were more likely to maintain good payment habits; the precise extent to which this is true would seem worthy of further research, perhaps in conjunction with further work on charitable trusts. For water suppliers, in particular, offering additional support to consumers who struggle to pay their bills can have clear economic benefits. As they have no option to disconnect consumers who fail to pay their bills, offering alternate tariffs and payment options can allow them to gain some - if not full - compensation, where previously none might have received. As one water company representative observed:

> *"Once you get to somebody who has a bill of £800 a year and an income of £80 a week, the issue is how much of that £80 can*

that customer give to you, and how much should they give to you, if you're being reasonable."

Indeed, much of the benefit is derived from establishing better relationships between suppliers and consumers, including enabling companies to better differentiate between consumers who "can't pay" and those who "won't pay"; this will be explored more thoroughly in the next section.

Combined Incentives: Case Study

One organisation included in this research, a Local Authority, were in the unique position of directly providing support mechanisms designed to respond to legislative responsibilities around both environmental impact and social wellbeing without the added driver of economic profit that has been indicated to – as might be expected – dominate the behaviour of supplier-lead programmes. The experiences of this organisation present an unusual case with outcomes worthy of more focused consideration.

In order to respond to these obligations, the Local Authority created a single scheme incorporating both efficiency measures and financial support in what effectively served as a "one stop shop". Significant effort was put into making broad and effective contact with residents, and the Local Authority made use of this contact to provide a broad range of advice and information including information on water efficiency

measures and tariffs; this was supported through links with the support network.

This model was unique amongst those encountered over the course of this research, though the interviewees from this Local Authority were aware of at least one other Authority undertaking broadly similar work. It may be that Local Authorities are uniquely placed to offer such offer such programmes on an intensive community-orientated basis. Working in one locality enables economies of scale to be obtained in the delivery of measures. It also enables relationships to be built with single water suppliers and any fuel companies with particular local presence. Further research into the prevalence of such schemes and best practice uncovered could prove extremely useful to policymakers interested in their widespread appropriation.

Analysis

In considering the way in which support mechanisms operate, it is helpful to view them as a component of the market system that governs the distribution of fuel and water to domestic customers by profit-making corporations. Given the essential nature of these goods, market freedom is curtailed by legislation which guides the behaviour of suppliers to ensure certain standards – governed by political expectations – are met. In keeping with this market-driven model, the driver used to manage change is that which acts as the general goal of corporations operating

within the system; economic profit. That this has been found to act as the incentive that underpins most action taken by suppliers makes sense in the context of a market system.

This research has indicated that social and environmental legislation, guided by profit motives, has supported the creation of support schemes; this in itself is encouraging. However, it has been found that, in the case of fuel, environmental targets tend to preclude the social where they are at cross-purposes, for example, where charging is regressive. It was also indicated that suppliers are starting to recognise the economic benefits of support mechanisms designed to have a social impact in improving customer payment habits.

In terms of practical applications, it is hoped that this research will be useful to policymakers in evaluating the way in which different support mechanisms coexist. It is believed that this research makes a case for the continuation of the Warm Front scheme and its counterparts in the devolved administrations. This is the primary scheme currently targeting efficiency measures specifically at the fuel poor, and if recessionary cuts impact negatively upon its operation it would seem counter-intuitive given that, if anything, we would expect to see an increase in the numbers of fuel poor. Billing clarity, also, could help in allowing the fuel poor to understand how their payments are used, the support that might be available to them, and discourage suppliers from excessively inequitable distribution. Additionally, financial support schemes such as

payment matching and charitable trusts have been indicated to prove a strong long-term investment for suppliers, motivating consumers to improve payment habits. Finally, Local Authority experience indicates that one stop shops that combine efficiency measurements with financial support, and are focused upon a single community offer particular potential for effective and efficient engagement.

Relationships Between Consumers and Support Providers

The research question sought to understand more about the nature of the relationships between consumers and the organisations that comprise the support network, and the ways in which these impact upon support delivery. This was raised in response to prior research that indicated that water suppliers have trouble discerning between consumers who “can't pay” their bills, and consumers who “won't pay” (see Sawkins and Dickie, 2008). These findings highlighted several themes that contribute to this topic.

“Can't Pay” vs. “Won't Pay”

Many interviewees recognised the “can't pay and “won't pay” distinction, and the particular difficulty it presents for water suppliers. It was generally held that both water and fuel suppliers were keen to identify which of these categories consumers in debt fell under, as the information would prove highly useful in discerning the best way in

which to handle cases; for example, whether financial support should be offered, or whether the debt should be more aggressively pursued.

> *"(The) majority of them are now trying to segment the customer base and work proactively... to identify who's likely to get into debt... certainly some companies are doing that."*

Several interviewees identified the particular barriers that water companies encounter in classifying consumers as symptomatic of broader structural differences between the two industries. Unlike fuel companies, water companies are not chosen by the consumer, they are unable to disconnect consumers who do not make payments and – crucially – there is no contract in place. These differences were viewed by some interviewees to present substantial barriers to water companies in building relationships with consumers and understanding better how to work with them on a case-by-case basis.

> *"It's difficult for (water) companies, they have to work much harder to find out anything about their customers."*

As indicated in the previous section, it was observed by interviewees that customers who had received support from a supplier – for example, via charitable trusts or a payment matching scheme – were more likely to exhibit good payment habits in the future. The perception was that where consumers felt the supplier understood their situation, they felt a

stronger obligation to maintain payments.

> "*And we're also aware from charitable trusts as well that after two or three years, generally around 70-80% of customers keep paying.*""

From a supplier perspective, interviewees indicated that a key appeal for suppliers of financial support mechanisms was in helping discern between "can't pays" and "won't pays"; where consumers had previously failed to make payments, consenting participation in such schemes indicated that their problems were a result of genuine hardship rather than simple unwillingness. These could appeal particularly to water companies as a way to overcome their difficulties in this respect; further research could substantiate this further.

Information Asymmetry

These findings indicate tha that structures which could work in favour of consumers – by design or otherwise – do not necessarily have an impact, generally as a result of information asymmetry. For example, several interviewees found that many water consumers were unaware that they cannot be disconnected from supply. This was held to be especially true for older people:

> *"A lot of people still believe they can be cut off with water... I*

wouldn't say generally, I would say with the older population because that's what they remember... "

Interviewees working for advice agencies reported a role correcting this information asymmetry by providing information about the way in which debts would be viewed by the court and instructing the consumer how to handle them accordingly.

"If they don't pay their gas or electric they can be cut off... the key message we're giving, "Those are the bills you must pay first.. We then come to the rest of the debts. And they are treated very differently... the court will say, "...We will make a nil order." Now, the creditors know that, the creditors think the client doesn't know that. And very often the client doesn't. So unless the client comes into an agency like (ours)..."

It was felt that whilst fuel companies, as priority creditors, welcomed this intervention, water companies might not be so encouraging.

"So when we're talking to energy companies, gas companies, they are delighted we're interfering because they know they're probably going to get their money now. Whereas with water no, this is the involuntary creditor if you like."

This might be interpreted as an incentive for water companies to become

more involved in communicating with, and supporting their consumers before they fall into arrears. Thus researching the development of this kind of activity could prove beneficial to suppliers, particularly in the water industry.

Data Sharing

A further issue raised by interviewees concerned the differing access that water and fuel companies have to consumer data. Fuel companies have access to benefits data, for the intended purpose of identifying vulnerable older people (see DWP, 2010). Water companies, at this time, do not have such access and it was felt by some interviewees that enabling this would improve their ability to provide support to customers who need it.

> *"(Water) companies certainly don't have a lot of information about their customers, unlike the energy sector... (the) energy sector have that link to DWP, water companies don't have that to be able to do anything similar."*

However, other interviewees felt that extending such access to water companies was unnecessary at this stage, as there was no indication that having access to such information had been particularly helpful to fuel companies.

"I think it is an interesting one because whilst there is some stuff that probably would help with targeting, the energy companies do have a lot more data. But at the end of the day, it hasn't helped them target anymore effectively"

The perceived lack of success of fuel companies in using the available data was attributed to a combination of matching data obtained to consumers, and difficulties in then applying that data to offer support.

"Although they will have some information from DWP to say, "these are the customers that need help" and they can proactively write to them, it still doesn't guarantee that those customers are actually going to take-up the assistance... It's not the answer."

It was also reported that consumers were not necessarily enthusiastic to supply details of their finances to those to whom they owed money. It was suggested by some that advice organisations could play a role here:

"I think the perspective from the customers' point of view, our clients' point of view is that we are going to be far more impartial...than if they go direct to the company."

Future research would be useful in assessing the extent and means to which fuel companies have utilised the extra data made available to them; this would enable an assessment as to whether sufficient benefit

would be gained by allowing water companies similar access. This work could include a consideration of the roles independent organisations play in mediating the sharing of data.

Water and Fuel Direct

A final finding relating to the interaction of consumers and suppliers concerns the implementation of the two direct payment schemes, Water Direct and Fuel Direct. Interviewees working for independent advice agencies believed that most individuals view the payments towards arrears made to be a worthwhile in order to take away the stress of organising payment.

> *"Even though it's an extra £3 a week that they have to pay, for them it's worth that £3 because it actually takes the pressure off them. "*

Suppliers, also supported the use of the scheme:

> *"As a creditor, I'd like the responsibility to be taken away from them and me to have the money... you get around the issue that... we can't disconnect."*

Effectively, the use of Water and Fuel Direct streamline the interaction between suppliers and consumers, removing anxiety around the arrival of

bills, barriers to payment and the need for pursuit of debts. However, DWP were viewed by several interviewees as being reluctant to promote the scheme widely,

> *"DWP aren't keen to advertise the availability of Water Direct because it is a scheme of last resort. And they want people to take responsibility for their own finances so they don't want to be promoting this."*

Government reticence to encourage uptake was generally viewed as rooted both the administrative burden and in value judgements held by policymakers as to the role that individuals should take in managing their own finances:

> *"The limited use of Fuel Direct... DWP... aren't keen on the scheme because of the administration involved, and/or local decision making from their side."*

> *"In... our industry discussions with the treasury... their view was you give the money to people and you've got to get them to manage … there are philosophical issues unfortunately around how you best help people. Do you help them to help themselves or do you take the responsibility away from them?"*

Some support workers with the ability to offer grants reported

willingness to handle situations in such a way as to improve the chances of individuals being admitted on to the schemes.

> *"You can only go onto DWP payments as well if you're in arrears. So we... couldn't clear somebody up to date if they wanted DWP payments, because then [they wouldn't qualify]."*

Given the widespread support for the schemes in other quarters, further research could support a case for increased utilisation. Such research might consider current uptake, philosophical concerns and practical considerations, for example, the means by which suppliers ensure those on Fuel and Water Direct are on the most beneficial tariff.

Analysis

The issues identified in this research ally closely with microeconomic theory that treats rational actors with the perfect information as a requirement for perfect competition (see Begg et al. (2005)). Where this is not achieved, the market fails to provide as anticipated. This research has indicated that imperfect information has a detrimental impact upon market operation. Where suppliers are unable to discern between consumers who cannot pay their bills and those who are simply unwilling to, it can prove difficult to adopt an appropriate means of dealing with the debt. Similarly, where consumers lack the knowledge to negotiate the support available to them effectively, they are unable to use what is

available to the best of their ability.

A number of potential means of correcting this market failure have been identified, and it is hoped that this research will prompt further work to evaluate their utility. Firstly, the possibility of opening up DWP data to water companies could be investigated further. Additionally, further research comparing the ways in which suppliers currently communicate with consumers, as well as the roles independent advice organisations can take may be beneficial. Finally, an evaluation of current use of Fuel and Water Direct and the potential for expansion could also serve as a valuable contribution.

Uniting Fuel and Water Affordability Support

This research seeks to contribute to an emerging body that combines consideration of fuel and water poverty. As such, this work sought to make comparisons of the two, both in terms of the support mechanisms available to consumers, and in terms of consumer treatment of the issues. Analysis of the themes that arose through this qualitative data analysis has uncovered a number of useful comparisons between the support mechanisms that exist around fuel and water poverty. This analysis concludes with a summary of these, and some suggestions as to future avenues for consideration.

Comparing Fuel and Water Affordability Support

There was a general consensus from interviewees that fuel and water poverty were related issues, offering further qualification as to the value of this work and that which preceded it.

> *"We do try to look at where there are any linkages or any crossover between fuel and water poverty... We recognise that where there's a fuel debt there's likely to be other debts..."*

The key differences between water and fuel were generally agreed to lie in the possibility of disconnection of fuel, and in the existence of regional monopolies for water. These, primarily, create differences between the way in which suppliers and consumers treat water and fuel poverty. For example; regional monopolies in water create a problem for consumers in that support available is mandated geographic location; the lack of regional monopolies in fuel make it costly for suppliers to provide uniform national support.

However, the similarities between the two industries offer opportunities for joint learning in areas where potential further research has been identified. For example, both industry support networks include the operation of direct payment schemes and charitable trusts. Both markets encounter issues where information asymmetry exists, and could utilise some of the same solutions, i.e., the support of independent advice agencies. Both fuel and water suppliers encounter difficulties in building

relationships and developing mutual understanding with consumers. Though the specifics differ – the “can't pay” vs. “won't pay” issue in water, for example – there is still learning to be shared.

Indeed, there are also differences that could prove useful in industry development. Consideration of fuel industry access to DWP records may enable water suppliers to decide whether it is worth lobbying for similar data, for example. And, whilst the majority of efficiency schemes are currently linked to energy, as they are increasingly used to tackle water poverty it may be useful to look at best practice from the fuel industry. Considering the experience of the water industry may be of particular interest to fuel suppliers as the commercial sensitivity of a competitive market precludes their looking to each other.

Combining Fuel and Water Affordability Support

Some interviewees had already sought to combine considerations of water and fuel poverty within the work they undertook, others were seeking to in the near future. The overall perception was that combined working would be on the increase, again, demonstrating the relevance of this research topic.

> *“We recognise the importance of a holistic approach to debt advice. And an element of that will be fuel debt, and this... project... is providing water debt advice and fuel debt advice.”*

This research has also highlighted a number of possibilities for joint working on fuel and water poverty. The experience of the Local Authority, in particular, presents a compelling case for the use of “one stop shops” in community-based schemes. Charitable trusts, also, can respond to both water and fuel poverty within a single application where suppliers cooperate. Finally, efficiency schemes are increasingly looking to combine water and fuel measures (EST, 2010). These could be of particular value in pushing water efficiency as there is less of a financial incentive for households to reduce water consumption; however, they might be more likely to engage with such a scheme if it were tied to more economically enticing fuel reduction schemes.

Chapter Five: Conclusion

This dissertation has answered the overarching research question, exploring the barriers that impact upon the delivery of support to individuals in fuel and water poverty in the United Kingdom. As a secondary consideration, it has sought to explore the ways in which the two types of support mechanisms may be combined to provide a more effective solution.

This topic was deemed to be engaging and relevant for several reasons. Firstly, statistical work has demonstrated the prevalence of both fuel poverty and water poverty; affecting somewhere in the region of 16 per cent (DECC, 2009) and 13.6 per cent (Bradshaw and Chzhen, 2008)) of households in the United Kingdom respectively. As the definitions of fuel and water poverty are based upon household income, it is anticipated that these figures will increase in line the current economic recession. Secondly, it has been recognised that this topic is currently under researched; in particular, water poverty in the United Kingdom – as a more recently established concept – is considered by very little in the way of academic research. Thirdly, the particular focus of this work – structural barriers to accessing support mechanisms within this particular network – has not been the focus of any research produced to date. Fourthly, the appreciation of fuel and water poverty as related concepts is growing amongst both policymakers and the academic community. This

research aims to sit within this growing body of work, a substantial quantity of which has been undertaken within the Department of Social Policy and Social Work at the University of York (see Snell and Main, 2009; Snell and Bradshaw, 2009; Snell et al., 2009). Finally, in view of the established prevalence of fuel and water poverty and the lack of existing work, it is hoped that this research will be of practical use to the policymakers who develop the support mechanisms under consideration.

The argument developed in this dissertation identified that many of the issues under consideration are rooted in the gap that exists between policy and practice. Following a review of available support mechanisms, it was recognised that a certain amount of freedom surrounds their provision. That is, that any support supplied beyond the bare minimum mandated in legislation is discretionary which, it was recognised, may have an impact upon the delivery and access to such measures.

On the whole, the research findings indicate that the support available to individuals in fuel and water poverty is not uniform. In particular, it was identified that network structure can impact upon the extent to which individuals with the three main discriminating factors; geographic location, supplier choice (for fuel only) and the point at which a consumer accessed the support mechanism. Furthermore, it was identified that there is some lack of clarity over who needs support, stemming in part from difficulties in applying the accepted definitions of fuel and water poverty. This, together with the fact that much support

available is qualified for on a “pass/fail” basis – i.e., with no sliding scale – leads to concerns that people in need of support are prevented from receiving it due to barriers inherent in the support network. It was found that two main incentives impact upon the delivery of support and serve to shape the network and support provided; environmental impact and social wellbeing. Underlying these are legislative and economic incentives that also serve to drive behaviour, particularly that of suppliers. These incentives were sometimes at cross purposes; for example, where energy efficiency schemes are funded regressively. Encouragingly, it was also observed that suppliers are increasingly understanding that affordability programmes can impact positively on their economic profit as customers who receive extra help exhibit better payment habits. It was also identified that suppliers continue to encounter difficulties in understanding their customer base and, equally, consumers do not always know how to best negotiate support networks. This asymmetry of information was understood to create market failure, meaning that desired policy outcomes are not always achieved. Finally, findings indicate that there is understanding within the industries that the issues of fuel and water poverty are related, and that opportunities exist for the two to be tackled as joint concerns.

It is recognised that the generalisability of this work is limited, and that no indubitable conclusions can be drawn about the nature of the support networks under consideration. However, as an initial look at a previously unresearched, policy relevant topic, it is hoped that some of the

conclusions offered will provide a useful foundation for future research around some of the individual concerns identified.

This research indicates the potential of some currently under-researched and under-utilised support mechanisms to provide solutions to some of the identified problems. Where uniformity of support further research is required to evaluate the nature and extent of the issue and the way in which policy might be used to correct the problem. However, as an existing policy possibility, the extension of a mandatory social tariff designed to support those in fuel poverty may account for some of the discrepancies between suppliers. In terms of addressing concerns about those who need help failing to qualify due to structural barriers, charitable trusts have been found to be of great use in catching those who fall through the gaps in existing policy. Where environmental and social benefits have been shown to be at cross purposes, the potential for the fuel poor to bear the burden of regressively financed energy efficiency schemes - such as those incentivised by CERT legislation demonstrates the ongoing value of the Warm Front scheme and its devolved equivalents. Where asymmetry of information has been found to present a barrier, "restart" payment matching schemes were found by participants to be of great use in discerning those with genuine difficulties paying from those who were simply unwilling; this benefit was particularly appealing to water suppliers, who have a greater difficulty in this area due to their inability to disconnect those who do not pay. The potential for extending access to Department of Work and Pensions

benefits data to water companies also shows potential in addressing this problem, though further work is needed to establish based on the experiences of fuel companies – whether this would be truly beneficial. Furthermore, the possibility for greater application of the Fuel and Water direct schemes is indicated to hold great potential in smoothing out the communication difficulties between suppliers and consumers. Finally, opportunities for combining water and fuel support mechanisms also hold potential, as most notably illustrated by the Local Authority “one stop shop” scheme featured as a case study in this work.

Appendix One: Interview Topic Guide

Note: Interviews conducted were semi-structured, and participants were guided as to the aims of the exercise and then encouraged to talk about what they felt important. For the most part, participants spoke easily and at length about their work and conversation required few prompts. The topic guide was used largely, when needed, to stimulate discussion and provide direction, and questions were included and discarded as appropriate given the differing natures of organisations.

- Could you summarise what your organisation does?
- Does your organisation work with individuals in fuel poverty? Water poverty? Both?
- Could you explain more about your job role?
- To what extent does your organisation work with individuals in fuel/water poverty?
- How important, as issues, do you feel fuel/water poverty is/are? Generally? To your organisation? In relative terms?
- What incentivises the action your organisation takes to combat fuel/water poverty? If there is more than one incentive, how do they coexist?
- Do you think there are any respects in which these incentives to tackling fuel and water poverty are at odds?
- What other organisations do you work with to carry out this work?
- From your perspective, how successful is the organisational working that takes place?
- Which organisations do you feel hold responsibility for carrying out this work? Is this view generally shared?
- Do you think there is scope for fuel and water poverty to be tackled together?
- Do you think there are any respects in which solutions to fuel and water poverty are at odds?
- How do you feel fuel and water poverty are similar? How do you feel they differ?
- How does your organisation interact with consumers?
- How easy do you think it is for consumers to access your organisation? What is take-up like? What barriers are you aware exist?
- What support do you provide?
- Do you cross-refer with any other forms of support?
- How, ideally, do you feel barriers could be tackled?
- In an ideal world, what changes would allow you to better provide effective support?

Appendix Two: Network Map

Note: To ensure confidentiality, the column indicating the names of organisations has not been included in this table; the intent is simply to illustrate how the mapping process was organised. To this end, only sixteen examples are given – the actual map was far more extensive. Furthermore, the inclusion of any easily identifiable organisation within this chart in no way implies participation, only that they were included within the mapping.

Number	Organisation	Type	Fuel/Water/Both
1		Generic Water Company	Water
2		Generic Fuel Company	Fuel
3		Government Department	Both
4		Government Department	Fuel
5		Government Department	Water
6		Regulator	Fuel
7		Regulator	Water
8		Advice Agency	Both
9		Generic Local Authority	Both
10		Charitable Trust	Both
11		Charitable Trust	Both
12		Consumer Organisation	Fuel
13		Consumer Organisation	Water
14		Consumer Organisation	Fuel
15		Consumer Organisation	Both
16		Charity	Both

Appendix Three: Sample Participation Request Email

Dear [Potential Participant],

I am currently working on a research project with the University of York, funded by the Eaga Charitable Trust, investigating the barriers that prevent people who are in fuel and water poverty accessing the support mechanisms that are available to them.

As part of this research, we are looking to speak to representatives from [organisation type] about the challenges they face in working with customers who struggle to pay bills. It is hoped that this research will prove useful in improving the services that exist to support these customers. We would be very happy to provide further details of this research to any interested parties, as well as the final report when it becomes available.

Would it be possible for you to refer this email to someone who works for your organisation in this capacity? It would be very much appreciated if someone could get in touch to support this research.

Many thanks,

Lauren Probert

Appendix Four: Sample Consent Form

Name: Lauren Probert

I am doing research on a project investigating the barriers that prevent individuals in fuel and water poverty accessing the support mechanisms available to them.

If you have any questions, Dr. Carolyn Snell is directing the project and can be contacted at:

Department of Social Policy and Social Work
University of York
Heslington
YORK
YO10 5DD

Thank you for agreeing to take part in this project.

- Taking part is entirely your choice
- You are free to refuse to answer any question without saying why
- You are free to withdraw at any time without saying why
- Whether you take part or not, services you receive will not be affected.

The interview will be tape-recorded. The data will be kept strictly confidential and will be available only to members of the research team. Your words and ideas may be quoted in the final research report, but under no circumstances will your name or any identifying characteristics be included in the report.

Please sign this form to show that you have read and understood the contents.

(printed)

(date)

Appendix Five: Coding Categories

Pre-Established Codes	
Energy Efficiency	Water Efficiency
WaterSure	Water Social Tariffs
Fuel Social Tariffs	Fuel Direct
Water Direct	Charitable Trusts
Environmental Incentives	Social Incentives
Economic Incentives	Fuel/Water Similar
Fuel/Water Different	General Barriers
Support Uniformity	Miscellaneous
Organisational Attitudes	Consumer Attitudes
Codes Established During Analysis	
Data Sharing	Billing Clarity
Geographical Barrier	Supplier Barrier
Access Barrier	

Bibliography:

Age UK (2010) 'Campaign, ending fuel poverty' [http://www.ageuk.org.uk/get-involved/campaign/ending-fuel-poverty/], accessed on 25th September 2010.

Armstrong, D., Winder, R. and Wallis, R. (2006) Impediments to policy implementation: The offer of free installation of central heating to an elderly community has limited uptake, *Public Health* 120: 161-166.

Begg, D., Fischer, S and Dornbusch, R. (2005) *Economics: Eighth Edition*. London: McGraw-Hill.

Bernard, H. R. and Ryan, G. W. (2010) *Analyzing Qualitative Data: Systematic Approaches*, London: Sage Publications.

Boardman, B. (1991) *Fuel Poverty: From Cold Homes to Affordable Warmth*, London: Belhaven Press.

Bradshaw, J. and Chzhen, Y. (2008) Water Poverty: Analysis of the Family Resources Survey and Expenditure and Food Survey. [Internal paper commissioned by the Consumer Council for Water].

Bradshaw, J. and Hutton, S. (1983) Social Policy Options and Fuel Poverty, *Journal of Economic Psychology* 3: 249-266.

Brook Cowen, P.J. (1997) The Private Sector in Water and Sanitation – How to Get Started, aavailable at [rru.worldbank.org/documents/publicpolicyjournal/126brook.pdf], accessed on 25th September 2010.

Bryman, A. (2008) *Social Research Methods: Third Edition*, Oxford: Oxford University Press.

Bungay, H. (2005) Cancer and Health Policy: The Postcode Lottery of Care, *Social Policy and Administration* 39(1): 35-48.

Burholt (2006) Keeping warm? Self-reported housing and home energy efficiency factors impacting on older people heating homes in North Wales, *Energy Policy* 34: 1198-1208.

Burns, F.M., Imrie, J.Y., Nazroo, J., Johnson, A.M., Fenton, K.A. (2007) Why the(y) wait? Key informant understandings of factors contributing to late presentation and poor utilization of HIV health and social care services by African migrants in Britain, *Aids Care* 19(1): 102-108.

CAB (2010) 'About us' [http://www.citizensadvice.org.uk/index/aboutus.htm], accessed on

25th September 2010.

Castro (2007) Poverty and citizenship: Sociological perspectives on water services and public-private participation, *Geoforum* (38): 756-771.

Centrica (2010) ' Glossary: Fuel poverty' [http://www.centrica.co.uk/index.asp?pageid=355#F], accessed on 25th September 2010.

Cho, D., Ogwang, T., Opio, C. (2010) Simplifying the Water Poverty Index, *Social Indicators Research* 97: 257-267.

Consumer Focus (2010) 'Charter calls for scandal of fuel poverty to end' [http://www.consumerfocus.org.uk/news/charter-calls-for-scandal-of-fuel-poverty-to-end], accessed on 25th September 2010.

Consumer Focus (2010a) 'What's the deal?' [http://www.consumerfocus.org.uk/assets/1/files/2010/02/Whats-the-deal-2010.pdf], accessed on 25th September 2010.

Consumer Focus (2010b) 'Changes to Home Insulation Measures Miss The Target' [http://www.consumerfocus.org.uk/news/changes-to-home-insulation-measures-miss-the-target---warns-consumer-focus], accessed on 25th September 2010.

Consumer Focus Scotland (2009) *Communities Learning from Area-Based Energy Efficiency Projects in Scotland* available at [http://www.consumerfocus.org.uk/assets/3/files/2009/10/Area-Based-Energy-Report.pdf], accessed on 25th September 2010.

Creative Research (2009) Living with Water Poverty: Report of Research Findings. Birmingham: CCWater.

DCLG (2007) *The New Performance Framework for Local Authorities and Local Authority Partnerships: Single Set of National Indicators* available at [http://www.communities.gov.uk/publications/localgovernment/nationalindicator], accessed on 25th September 2010.

DCLG (2008) *National Indicators for Local Authorities and Local Authority Partnerships* available at [http://www.communities.gov.uk/documents/localgovernment/pdf/708740.pdf], accessed on 25th September 2010.

DECC (2001) *The UK Fuel Poverty Strategy* available at [http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/fuel_poverty/strategy/strategy.aspx], accessed on 25th September 2010.

DECC (2009) *The UK Fuel Poverty Strategy 7th Annual Progress Report* available at

[http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/fuel_poverty/strategy/strategy.aspx], accessed on 25th September 2010.

DECC (2009a) *Annual Statistics Report on Fuel Poverty – 2009: 2007 data* [http://www.statistics.gov.uk/hub/business-energy/energy/fuel-poverty], accessed on 25th September 2010

DECC (2010) 'Heating and Insulation Grants from Warm Front' [http://www.warmfront.co.uk/], accessed on 25th September 2010.

DECC (2010a) 'Community Energy Saving Programme (CESP' [http://www.decc.gov.uk/en/content/cms/what_we_do/consumers/saving_energy/cesp/cesp.aspx], accessed on 25th September 2010.

De Leeuw, E. (2008) Self-administered questionnaires and standardized interviews, in Alasuutari, P., Bickman, L., and Brannon, J. (eds). *The Sage Handbook of Social Research Methods.* London: Sage Publications: 313-327.

DEFRA (2004) *Fuel Poverty in England: The Government's Plan for Action* [*http://www.decc.gov.uk/assets/decc/what%20we%20do/supporting%20consumers/addressing%20fuel%20poverty/strategy/1_20091020122528_e_@@_fuelpovertyactionplan.pdf*], accessed on 25th September 2010.

DEFRA (2009) *The Independent Review of Charging for Household Water and Sewerage Services: Final Report* available at [http://www.defra.gov.uk/environment/quality/water/industry/walkerreview/], accessed on 25th September 2010.

Diener, E. and Crandall, R. (1978) *Ethics in Social and Behavioural Research*. Chicago: University of Chicago Press.

Dodds, L. and Dobson, G. (2008) Tackling Barriers to Take-up of Fuel Poverty Alleviation Measures, available at [http://www.sustainable-cities.org.uk/db_docs/Eaga_Fuel_Poverty_Final.pdf], accessed on 25th September 2010.

Direct.gov (2010) 'Overdue utility bills' [http://www.direct.gov.uk/en/MoneyTaxAndBenefits/ManagingDebt/DebtsAndArrears/DG_10025592], accessed on 25th September 2010.

Dresner (2006) Economic Instruments to Improve UK Home Energy Efficiency without Negative Social Impacts, *Fiscal Studies* 27(1): 47-74.

DWP (2010) 'Up to £20 million off fuel bills for poor pensioners as energy rebate scheme gets underway' [http://www.dwp.gov.uk/newsroom/press-releases/2010/july-2010/dwp085-10-080710.shtml], accessed on 25th September 2010.

EAS (2010) Energising Fuel Direct available at [http://www.eas.org.uk/downloads/Energising%20Fuel%20Direct.pdf], accessed on 25th September 2010.

E.ON (2010) 'Challenge 100' [http://www.eon-uk.com/media/challenge100.aspx], accessed on 25th September 2010.

El-Ansar, W. and El-Silimy, S. (2008) Are fuel poverty reduction schemes associated with decreased excess winter mortality in elders? A case study from London, UK, *Chronic Illness* 4: 289.

ESRC (2010) *Research Ethics Framework* available at [http://www.esrc.ac.uk/esrcinfocentre/images/esrc_re_ethics_frame_tcm6-11291.pdf], accessed on 25th September 2010.

EST (2008) 'Ofgem – social tariffs must be the cheapest deal' [http://www.energysavingtrust.org.uk/Resources/Energy-saving-news/Energy-efficiency-consumer-new-tag/Ofgem-social-tariffs-must-be-cheapest-deal], accessed on 25th September 2010.

EST (2009) 'Water efficiency should be part of Great British Refurb' [http://www.energysavingtrust.org.uk/Resources/Energy-saving-news/Wasaving/Water-efficiency-should-be-part-of-Great-British-Refurb/(energysavingtrust)/56287], accessed on 25th September 2010.

EST (2010) 'Grants and Discounts Database' [http://www.energysavingtrust.org.uk/Easy-ways-to-stop-wasting-energy/Energy-saving-grants-and-offers/Grants-and-Discounts-Database], accessed on 25th September 2010.

Feitelson, E. and Chenoweth, J. (2002) Water poverty: towards a meaningful indicator, *Water Policy* 4(3): 263–281.

Feng, K., Hubacek, K., Guan, D., Contestibile, M, Minx, J. and Barrett, J. (2010) Distributional Effects of Climate Change Taxation: The Case of the UK, *Environmental Science and Technology* 44(10): 3670–3676.

Fitch, M. and Price, H. (2002) Water Poverty in England and Wales, available at [http://www.cieh.org/library/Knowledge/Environmental_protection/waterpoverty.pdf], accessed on 25th September 2010.

Fuel Poverty Indicator (2010) 'Fuel Poverty Indicator' [http://www.fuelpovertyindicator.org.uk/], accessed on 25th September 2010.

Gascoigne, C. Morgan, K., Gross, H. and Goodwin, J. (2010) Reducing the health risks of severe winter weather among older people in the United

Kingdom: an evidence-based intervention, *Aging and Society* 30: 275-297.

Gilbertson, J., Stevens, M., Stiell, B., Thorogood, N. (2006) Home is where the hearth is: Grant recipients' views of England's Home Energy Efficiency Scheme (Warm Front), *Social Science and Medicine* 63: 946-956.

Graham, C. (2006) The politics of necessity: Electricity and water in Great Britain, *Journal of Consumer Policy* 29(4): 435-448.

The Guardian (2000) 'Q&A: Postcode Lottery' [http://www.guardian.co.uk/society/2000/nov/09/NHS], accessed on 25th September 2010.

The Guardian (2008) 'Npower admits laws needed on fuel poverty' [http://www.guardian.co.uk/business/2008/mar/09/utilities], accessed on 25th September 2010.

Hanvey and Philpot (eds.) (1996) *Sweet charity : the role and workings of voluntary organisations.* London: Routledge.

Hamermesh, D.S. (2000) The Craft of Labormetrics, *Industrial and Labor Relations Review* 53(3): 363-380.

Harrington, B.E., Heyman, B., Merleau-Ponty, N., Stockton, H., Ritchie, N. and Heyman, A. (2005) Keeping warm and staying well: findings from the qualitative arm of the Warm Homes Project, *Health and Social Care in the Community* 13(3): 259-267.

Healy, J.D. (2003) Excess winter mortality in Europe: a cross country analysis identifying key risk factors, *Journal of Epidemiol Community Health* 57:784-789.

Healy, J.D. and Clinch, J.P. (2004) Quantifying the severity of fuel poverty, its relationship with poor housing and reasons for non-investment in energy-saving measures in Ireland, *Energy Policy* 32:20-220.

Heyman, B., Harrington, B.E., Merleau-Ponty, N., Stockton, H., Ritchie, N. and Allan, T.F. (2005) Keeping Warm and Staying Well. Does Home Energy Efficiency Mediate
the Relationship between Socio-economic Status and the Risk of Poorer Health? *Housing Studies* 20(4):649-664.

HM Government (1999) *Water Industry Act 1999* available at [http://www.opsi.gov.uk/acts/acts1999/pdf/ukpga_19990009_en.pdf], accessed on 25th September 2010.

HM Government (2006) *Climate Change and Sustainable Energy Act* available at [http://www.legislation.gov.uk/ukpga/2006/19/contents],

accessed on 25th September 2010.

HM Government (2008) T*he Electricity and Gas (Carbon Emissions Reduction) Order* available at [http://www.legislation.gov.uk/uksi/2008/188/contents/made], accessed on 25th September 2010.

Hossain, K. (2009) Fuel Poverty and the New Local Authority Performance Framework: An examination of the impact of NI187 on fuel poverty alleviation in London. Imperial College: MSc Report.

Howieson, S.G. And Hogan, M. (2005) Multiple deprivation and excess winter deaths in Scotland, *The Journal of the Royal Society for the Promotion of Health* 125(1): 18-22.

Huby, M. (1995) Water Poverty and Social Policy: A Review of Issues for Research, *Journal of Social Policy* 24(2): 219-236.

Huby, M. and Anthony, K. (1997) Regional inequalities in paying for water, Policy Studies 18(3): 207-217.

Hudson, J. and Lowe, S. (2009) *Understanding the Policy Process: Second Edition*. Bristol: The Policy Press.

The Independent (2009) 'Postcode lottery still determines degree achievement' [http://www.independent.co.uk/news/education/education-news/postcode-lottery-still-determines-degree-achievement-1805468.html], accessed on 25th September 2010.

Jenkins, D.P. (2010) The value of retrofitting carbon-saving measures into fuel poor social housing, *Energy Policy* 38:832.839.

Komnenic, V., Ahlers, R., van der Zaag, P. (2009) Assessing the usefulness of the water poverty index by applying it to a special case: Can one be water poor with high levels of access?, *Physics and Chemistry of the Earth* 34: 219-224

Lawrence, P., Meigh, J., Sullivan, C. (2002) *The Water Poverty Index: an International Comparison,* Keele University: Centre for Economic Research.

Liddell, C. and Morris, C. (2010) Fuel poverty and human health: A review of recent evidence, *Energy Policy* 38:2987-2997.

Lipsky, M. (1980) *Street-level Bureaucracy; Dilemmas of the Individual in Public Services.New York: Russell Sage*.

Lister, R. (1995) Water Poverty, *The Journal of the Royal Society for the*

Promotion of Health 115(2): 80-83.

Mangan, J., Hughes, A., Davies, P and Slack, K. (2010) Fair access, achievement and geography: explaining the association between social class and students' choice of university, *Studies in Higher Education* 35(3): 335-350.

Marshall (1996) The key informant technique, *Family Practice* 13(1): 92-97.

Marx, G.T. (1997) Of Methods and Manners for Aspiring Sociologists: 37 Moral Imperatives, *American Sociologist* Spring 1997: 102-125.

Meiners, M.R. and Goss, S.C. (1994) Passing The 'Laugh Test' For Long-Term Care Insurance Partnerships, *Health Affairs* 13(5):225-228.

Morrison, C. and Shortt, N. (2008) Fuel poverty in Scotland: Refining spatial resolution in the Scottish Fuel Poverty Indicator using a GIS-based multiple risk index, *Health and Place* 14:702-717.

National Right to Fuel Campaign (2010) 'National Right to Fuel Campaign' [http://www.righttofuel.org.uk/], accessed on 25th September 2010.

NEA (2010) 'Fuel poverty and energy efficiency' [http://www.nea.org.uk/fuel-poverty-and-energy-efficiency/], accessed on 25th September 2010.

NPR (2003) 'World Bank, IMF: Privatize Water Utilities' [http://www.npr.org/templates/story/story.php?storyId=906163], accessed on 25th September 2010.

Ofgem (2010) *Review of suppliers' approaches to debt management and prevention.* London: Ofgem.

Ofwat (2009) 'Customers applying for financial assistance under the Vulnerable Groups Regulations (WaterSure) 2008-09' [http://www.Ofwat.gov.uk/consumerissues/problemspayingbill/rpt_tar_2008-09watersure.pdf], accessed on 25th September 2010.

Ofwat (2010) 'Having problems paying your bill? Vulnerable groups scheme (WaterSure)' [http://www.Ofwat.gov.uk/consumerissues/problemspayingbill/prs_web_vulngrpsregs], accessed on 25th September 2010.

Ofwat (2010b) 'Customer Charges 2010-2011' [http://www.Ofwat.gov.uk/regulating/reporting/rpt_tar_2010-11householddata], accessed on 25th September 2010.

Ofwat (2010c) 'Meters'

[http://www.Ofwat.gov.uk/consumerissues/meters/], accessed on 25th September 2010.

Ofwat/DEFRA (2006) *The Development Of The Water Industry In England And Wales* available at htt9p://www.water.org.uk/home/resources-and-links/waterfacts-2005/development-of-water-industry270106.pdf] [Accessed 12 November 2009], accessed on 25th September 2010.

Olsen, N.D.L. (2001) Prescribing Warmer, Healthier Homes: British Policy To Improve Homes Should Help Both Health And The Environment, *British Medical Journal* 322: 748-749.

O'Neill, T., Jinks, C. and Squire, A. (2006) "Heating Is More Important Than Food" *Journal of Housing For the Elderly* 20(3): 95-108.

Powells, G.D. (2009) Complexity, entanglement, and overflow in the new carbon economy: the case of the UK's Energy Efficiency Commitment *Environment and Planning A* (41): 2342-2356.

Power, A. (2008) Does demolition or refurbishment of old and inefficient homes help to increase our environmental, social and economic viability? *Energy Policy* 36: 4487-4501.

Punch, K.F. (2005) Introduction to Social Research: Quantitative and Qualitative Approaches (Second Edition), London: Sage Publication.

Reissmann, C.K. (2008) Narrative Methods for the Human Sciences, London: Sage Publications.

Richardson, J.J., Maloney, W.A. and Rüdig, W. (1992). The Dynamics of Policy Change: Lobbying and Water Privatization. *Public Administration* 70: 157-175

Riddell, S. and Weedon, E. (2009) Approaches to dispute resolution in additional support needs in Scotland, *European Journal of Special Needs Education* 24(4): 355-369.

Roberts, S. (2008) Energy, equity and the future of the fuel poor, *Energy Policy* 36:4471-4474.

Rogers, P and Hall, A. (2003) Effective Water Governance TEC Background Paper No.7, Global Water Partnership Technical Committee, available at [http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.130.2714], accessed on 25th September 2010.

Rudge, J. and Gilchrist, R. (2005) Excess winter morbidity among older people at risk of cold homes: a population-based study in a London borough, *Journal of Public Health* 27(4):353-358.

Salameh, E. (2000) Redefining the water poverty index, *Water International* 25(3): 469–473.

Sawkins, J., and Dickie, V. (2008) *Great Britain: England and Wales, and Scotland.* In Prasad, N., 2008. *Social Policies and Private Sector Participation in Water Supply.* New York: Palgrave Macmillan.

Seale, C. (2010) Using Computers to analyse qualitative data in Silverman, D. *Doing Qualitative Methods: Third Edition*, London: Sage Publications: 251–267.

Sefton (2002) Targeting Fuel Poverty in England: Is the Government Getting Warm? *Fiscal Studies* 23(3): 369–399.

Silverman, D. (2010) *Doing Qualitative Methods: Third Edition*, London: Sage Publications.

Shortt, N. and Rugkåsa, J. (2007). "The walls were so damp and cold" fuel poverty and ill health in Northern Ireland: Result from a housing intervention *Health & Place*, 13: 99–110.

Snell, C. and Bradshaw, J. Water Poverty in England and Wales: searching for a passport benefit. [Internal paper commissioned by the Consumer Council for Water].

Snell, C. and Main, G. (2009) Comparing the social and environmental impact of domestic fuel and water policy on those who can least afford to pay. [Internal paper commissioned by the Consumer Council for Water].

Snell, C., Main, G. and Wilson, S. (2009) "With the water bill at the moment, it's just in a drawer somewhere, there's nothing I can do….I can't pay it': experiences of water poverty in England.' [Internal paper]

Stewart, J. and Habgood, V. (2008). Benefits of a health impact assessment in relation to fuel poverty: assessing Luton's Affordable Warmth Strategy and the need for a national mandatory strategy, *The Journal for the Royal Society for the Promotion of Health* 128(3): 123–129.

Sustain (2010) 'Changes to CERT scheme provide a more 'focused approach' [http://www.sustain.co.uk/news/2010/07/changes-to-cert-scheme-provide-a-more-'focused-approach'.aspx], accessed on 25th September 2010.

Sullivan, C. (2002) Calculating a Water Poverty Index *World Development* 30(7):1195–1210.

TAMS Analyzer (2010) 'TAMS Analyzer for Macintosh OS X' [http://tamsys.sourceforge.net/], accessed on 25th September 2010.

Thomson, H., Petticrew, M., Morrison, D. (2001) Health Effects Of Housing Improvement: Systematic Review Of Intervention Studies *British Medical Journal* 323: 187-190.

UCLA (2010) 'Section 4: Key Informant Interviews' [http://www.healthpolicy.ucla.edu/healthdata/ttt_prog24.pdf], accessed on 25th September 2010.

University of Illinois Extension—Program Planning and Assessment (2010). Needs Assessment Techniques: Using Key Informant Interviews. Urbana, Illinois: University of Illinois.

Uswitch.com (2010) 'Energy debt - what you can do' [http://www.uswitch.com/gas-electricity/energy-debt/], accessed on 25th September 2010.

Wright, F. (2004). Old and Cold: Older People and Policies Failing to Address Fuel Poverty *Social Policy & Administration*, 38(5): 488-503.

Van den Berg, C. (1997) Water Privatization and Regulation in England and Wales, available at [http://rru.worldbank.org/documents/publicpolicyjournal/115vdbrg.pdf] , accessed on 25th September 2010.

Warm Front (2010) 'The Warm Front Team' [http://www.warmfront.co.uk/], accessed on 25th September 2010.

Walker, G. (2008) Decentralised systems and fuel poverty: Are there any links or risks? *Energy Policy* 36: 4514-4517.

Weber, R. P. (1990). *Basic Content Analysis: Second Edition,* Newbury Park: California.

Wilkinson, P., Pattenden, S., Armstrong, B., Fletcher, A., Sari Kovats, R., Mangtani, P., McMichael, A.J. (2004) Vulnerability To Winter Mortality In Elderly People In Britain: Population Based Study, *British Medical Journal* 329: 647-651.

Yorkshire Water (2007) *Strategic Direction Statement* [http://www.yorkshirewater.com/medialibrary/PDF%20files/Strategic_Direction_Statement.pdf], accessed on , accessed on 25th September 2010. September 2010.