



Northern Ireland Audit Office

Warm Homes: Tackling fuel poverty



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Warm Homes: Tackling fuel poverty

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J M Dowdall CB
Comptroller and Auditor General

Northern Ireland Audit Office
23 June 2008

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Glossary

Benefits Health Check

Eaga plc provides advice on benefit entitlements to householders who qualify for the Warm Homes Scheme.

Energy Efficiency Levy

The Energy Efficiency Levy programme was introduced in 1997-98. The Levy is collected by Northern Ireland Electricity Energy Ltd from its customers and the funds generated are used to deliver energy savings. The size of the Levy has increased gradually over the years to a level of £7 per customer per year in 2007-08. Increases over the next two years are to be in line with inflation. The majority of the Levy funding (80 per cent) is targeted at helping to alleviate fuel poverty by improving poorly heated and inadequately insulated properties. The remainder of the Levy income is available for projects involving non-priority customers.

Fuel Poverty

The Department considers a household is in fuel poverty if, in order to maintain an acceptable level of temperature throughout the home (21°C in the living room and 18°C in other occupied rooms), the occupants would have to spend more than 10 per cent of their income on all household fuel use.

Northern Ireland House Condition Survey (NIHCS)

The House Condition Survey is based on the survey of a sample of dwellings across Northern Ireland. It provides an assessment of unfitnes;

disrepair; 'decent homes'; fuel poverty and energy efficiency (including the SAP ratings) at the Northern Ireland level, at sub-regional levels and for key sub-sectors of the market. Nine surveys have been carried out in the last 30 years and the results of the latest survey, in 2006, are due to be published in September 2008.

The figures for fuel poverty contained in NIHCS reports are derived from the survey findings by the Building Research Establishment in Watford using its fuel poverty model.

SAP Rating

The Government's Standard Assessment Procedure (SAP) for energy rating of dwellings is measured on a scale from 1 (least efficient) to 100 (most efficient). The rating is based on annual energy costs for space and water heating of a dwelling. In England, the Department for Environment, Food and Rural Affairs introduced a target rating of 65 SAP for the energy efficiency of any household treated by the Warm Front Scheme.

Vulnerable Households

Eligibility for the Warm Homes Scheme is limited to vulnerable households, defined as those on specific benefits and have a disability or are over 60 years old or have children (Figure 2).

Contents

	Page
Executive Summary	2
Part One: Warm Homes and fuel poverty	7
Warm Homes	8
Fuel poverty	11
What we did	11
Part Two: Performance management of Warm Homes	13
Strategic targets and milestones exist but the impact of Warm Homes is not being measured	14
Operational targets are being exceeded but they do not provide a useful measure	14
Fuel poverty has increased since 2004	16
Warm Homes has adapted to meet some emerging challenges	16
Part Three: Eligibility and grant take-up	19
Warm Homes' benefits are considerable	20
The Scheme's marketing is very effective	20
Passport benefits may not be effective in targeting the vulnerable fuel poor	20
<i>Unclaimed benefits are a barrier for potential applicants</i>	21
<i>Some groups are excluded from the Scheme</i>	22
There is targeting of those in the greatest need but some gaps exist	22
Grant allocations are concentrated in urban areas	23
Warm Zones provides a model for targeting assistance	23

	Page
Part Four: Energy efficiency measures	25
Warm Homes offers a wide range of measures	26
Some eligible households are not well served	27
Some measures have little impact on household energy efficiency	28
Part Five: Management of the Warm Homes Scheme	31
Eaga plc, a leading UK energy efficiency company, is the Warm Homes Scheme manager	32
<i>Roles and responsibilities</i>	32
Costs of the Scheme have been increasing	33
<i>The cost of individual measures has increased substantially</i>	33
<i>The Scheme's maximum grant has been increased</i>	34
Annual quality assurance reviews have repeatedly identified areas of low standards of provision	35
The Department has extended Eaga's contract	39
<i>The Contract provides for the recovery of excess profits</i>	39
Appendix 1: Comparisons of Fuel Poverty Schemes in the UK	42
Appendix 2: <i>Transforming Lives: Lessons Learned and Shared 'Home is Where the Heat is' project, Armagh and Dungannon Health Action Zone, 2002</i>	43

Abbreviations

DEFRA	The Department for Environment, Food and Rural Affairs
MLA	Member of the Northern Ireland Legislative Assembly
NAO	National Audit Office
NIE	Northern Ireland Electricity Energy Ltd
NIFPAG	Northern Ireland Fuel Poverty Advisory Group
NIHCS	Northern Ireland House Condition Survey
NIHE	The Northern Ireland Housing Executive
RPI	Retail Price Index
SAP	Standard Assessment Procedure for energy rating of dwellings

Executive Summary

Executive Summary

Introduction

1. A household is in fuel poverty if, in order to maintain an acceptable level of temperature throughout the home, the occupants would have to spend more than 10 per cent of their income on all household fuel use.¹ The three key factors in fuel poverty are household income, energy costs and the energy efficiency of the dwelling.
2. The Department for Social Development (the Department) is committed to ending fuel poverty in Northern Ireland. Its document 'Ending Fuel Poverty: A Strategy for Northern Ireland', published in 2004, established targets of eliminating fuel poverty in vulnerable households (householders on specific benefits and have a disability or are over 60 years old or have children) and in the social rental sector by 2010 and in non-vulnerable households by 2016.
3. The Warm Homes Scheme is sponsored by the Department. It is a key element in addressing fuel poverty amongst vulnerable owner occupiers and private rented households. Established in July 2001, the Scheme's budget has grown steadily, from £5 million in 2001-02 to £22million in 2007-08. A total of £109 million was spent on the scheme by 31 March 2008: £98 million from the Department and £11 million from Northern Ireland Electricity Energy Ltd (NIE), funded by the energy efficiency levy.

Key findings

4. Warm Homes has helped to improve the lives of many. The Scheme has provided energy efficiency measures to some 60,000 homes since 2001: in 2007-08 it gave grants averaging £1,835 to almost 11,300 households. It has contributed to a range of government priorities beyond addressing fuel poverty, such as better health and fewer winter deaths, improved air quality and reduced carbon dioxide emissions.
5. Nevertheless, there are a number of ways in which Warm Homes could be improved to meet the challenge of eradicating fuel poverty:
 - performance monitoring is simplistic and does not provide robust information with which to measure progress;
 - the current eligibility criteria exclude significant numbers of the fuel poor, while providing assistance to many households which are not in fuel poverty;
 - the energy efficiency measures available are not sufficient to lift some households out of fuel poverty and their impact in some households is negligible;
 - the costs of scheme measures have increased considerably since 2001, in excess of inflation; and
 - independent quality assurance has raised significant concerns about the quality and timeliness of the works completed over a number of years.

¹ *Ending Fuel Poverty: A Strategy for Northern Ireland* Department for Social Development, 2004. The Department adopted the World Health Organization standard, 21°C in the living room and 18°C in the other occupied rooms, as the acceptable household temperature.

6. In part, these issues reflect the Scheme's history. Warm Homes' predecessor, the Domestic Energy Efficiency Scheme (DEES), was not designed to address fuel poverty. DEES was upgraded and launched as Warm Homes in July 2001, more than three years before the publication of Northern Ireland's fuel poverty strategy in November 2004. The strategy embraced Warm Homes as a tool to eliminate fuel poverty amongst vulnerable groups, even though it was primarily an energy efficiency scheme not best suited to this purpose.
7. The Department is currently reviewing Warm Homes as it prepares to let a new contract for managing the scheme. The current scheme manager is Eaga plc² (Eaga). The Department's review will consider the issues in this report and it appears likely that it will seek considerable changes to the Scheme under the new contract.
8. The rest of this summary explores the issues in more detail and contains recommendations to address them.
11. The Department has established milestone targets for all households in fuel poverty, but these are not broken down between types of housing tenure i.e. owner occupied, private rented and social housing sectors. Warm Homes' contribution to eliminating fuel poverty is therefore not being measured directly. Operational targets for the Scheme have been exceeded consistently, but their simplicity does not provide a useful measure of progress towards the strategic objective. This is because the targets and monitoring are based solely on the number of homes treated rather than on the impact of such treatments, either in terms of lifting households from fuel poverty or, as a reasonable proxy, the improvement in household energy efficiency.

Detailed findings

9. Warm Homes has great potential value to benefit the fuel poor. It has significantly more resources and provides a wider range of measures than its predecessor, DEES. The Scheme remains very popular with its customers, providing significant benefits in household warmth and affordability.
10. Warm Homes is the primary tool for eliminating fuel poverty amongst vulnerable owner-occupiers and private rented households, and as such is central to the fuel poverty strategy. However, the Department's strategic objective of eliminating fuel poverty cannot be achieved by the Scheme alone. Fuel poverty is a product of household income levels, the costs of fuel as well as household energy efficiency. The Department has no control over household income levels and fuel costs.
12. At the current rates of activity the Scheme is unlikely to achieve its objective. The world wide rises in energy costs have drawn significant numbers into difficulty since 2004 and the Department informed us that the latest research³ estimates that in 2006 there were 225,500 households, 34 per cent of all households in Northern Ireland, experiencing fuel poverty. As the 2010 deadline approaches it is hard to see how fuel poverty can be eliminated amongst the target group without a massive and costly expansion of the Warm Homes Scheme.

² Eaga plc is a leading organisation in the management and delivery of the UK's grant-funded programmes aimed at tackling fuel poverty. It has an office in Dungannon and its headquarters are in Newcastle upon Tyne, England.

³ The Northern Ireland Housing Executive's '2006 Northern Ireland House Condition Survey' (to be published September 2008) – the survey report has not been made available to the Northern Ireland Audit Office.

Executive Summary

13. The Scheme's marketing is very effective. The use of passport benefits to define eligibility for grants provides a simple means of administering applications, but excludes groups such as the working fuel poor, the near benefit pensioners and those who, while eligible for benefit, do not claim it. Fuel poor adults below 60 years old, but without dependent children or a disability are considered non-vulnerable and remain outside the scope of Warm Homes. These groups, taken together, have been estimated to represent at least 35 per cent of the fuel poor and some means of addressing their needs will be necessary if the Government is to meet its targets. The use of Attendance Allowance and Disability Living Allowance, which are not means tested, as passport benefits means that almost half of all grants go to households that are not necessarily in fuel poverty.
 14. The wide range of energy efficiency measures available under the Scheme provides flexibility in meeting the needs of different households, but some households are not well-served. Central heating systems are only available to the over 60s, although experience suggests that households receiving only insulation measures are unlikely to be lifted from fuel poverty. The problem of 'hard to treat' homes, typically in rural areas away from the gas network, is a long standing one which Warm Homes has not yet addressed. The Department is trialling the use of solar energy as a potential solution.
 15. Grants are not directed towards the least energy efficient homes. In 2006-07, 30 per cent were awarded to energy efficient households that were at little risk of fuel poverty, that is, those with Standard Assessment Procedure (SAP) for dwellings energy ratings of 65 or more. Only 16 per cent of grants went to the least energy efficient households i.e. SAP ratings of 30 or less. The benefits of some grants can be minimal. Some of the measures provided, such as compact fluorescent light bulbs and draught proofing, have little or no impact on household energy efficiency and fuel poverty.
 16. The costs of the Scheme's measures have increased substantially, much more than inflation, over the period of the Scheme. While there are no direct comparisons with costs in other similar schemes in GB, the lower costs of heating systems in England's Warm Front Scheme are only partially explained by differences in Warm Homes' technical specification. The timeliness and quality standards expected from Eaga and its registered installers (sub-contractors) have not been achieved, and a substantial backlog has developed for installation of heating systems – by the end of March 2008 the waiting list for heating systems was equivalent to two years work (based on current funding). Eaga stated that timeliness had not been achieved in most cases due to the Scheme being over-subscribed and, in its view, quality assurance monitoring has been carried out in line with the Northern Ireland Housing Executive (NIHE) specifications and not specifications for the Warm Homes Scheme. The Department extended Eaga plc's contract as scheme manager on two occasions (July 2004 to June 2006 and July 2006 to June 2008), as allowed for under the contract. The current contract with Eaga runs to 30 June 2008.
-

17. The Department considers that the Warm Homes Scheme has contributed significantly to the alleviation of fuel poverty in Northern Ireland. NIHE, drawing on data from the 2006 Northern Ireland House Condition Survey (paragraph 12), estimated that the level of fuel poverty in Northern Ireland in 2006, 34.2 per cent of households, would have increased by 19.4 per cent to 53.7 per cent had it not been for the effects of reduced energy consumption. This is based on energy savings resulting from energy efficiency improvements in social and privately owned/rented houses, and other factors such as fuel switching, changes in household size and dwelling floor areas; the specific contribution of the Warm Homes Scheme to the reductions in energy consumption and fuel poverty has not been separately quantified.
18. The Department also informed us that it wants to improve the Warm Homes Scheme as an important tool in the alleviation of fuel poverty, and that it had begun working on the implementation of our findings following receipt of our draft report in March 2008. In May 2008, in response to the recent significant increases in fuel prices, the Social Development Minister established a Fuel Poverty Task Force to develop practical short-term measures to alleviate fuel poverty among the most vulnerable this winter. The Task Force is to report back to the Minister before the end of summer 2008. The Department informed us that it is the Minister's intention to then seek the support of the Executive for a package of short-term measures to assist the most vulnerable fuel poor.

Recommendations

19. For all the reasons above, Warm Homes does not make the contribution that it could to eradicating fuel poverty. The Department should consider how the Scheme can be matched more closely with the objectives and targets set out in the Fuel Poverty Strategy. Consideration should also be given to a review of the eligibility criteria and of the energy efficiency measures available. Preparations for letting the new contract for managing the Scheme from July 2008 provide an opportunity to implement the changes necessary to improve the economy, efficiency and effectiveness of Warm Homes.
20. Our specific recommendations are:
- *Performance management.* The Department should establish performance monitoring with related targets that can measure directly Warm Homes' contribution to eradicating fuel poverty. Ideally, these would measure the impact on household fuel poverty of Warm Homes' intervention, although a measure of the impact on household energy efficiency could be a useful proxy. This may require a fuel poverty indicator tool for Northern Ireland, similar to that developed by the Centre for Sustainable Energy and the University of Bristol in England. Continuous monitoring, with timely action to address any emerging risks or shortfalls in performance will be necessary;

Executive Summary

- *Eligibility.* The Department should focus assistance on those in fuel poverty who need help the most. A review of the eligibility criteria should consider how the non-vulnerable fuel poor - those in low paid work, near benefit pensioners and others - can be supported; while excluding those who are eligible under the current criteria but are not fuel poor. The extension of the benefits health check to include all applicants would be a useful first step. It may also be necessary to introduce specific targets for assisting the rural fuel poor and those in extreme fuel poverty. Restricting eligibility to those on low incomes, as evidenced by receipt of means tested benefits, would concentrate help on those in need;
 - *Energy efficiency.* Warm Homes should provide the most effective measures to lift households out of fuel poverty. This should include making central heating available to all those who qualify for grants. Established solutions for 'hard to treat' homes, while comparatively expensive, should be made available within the Scheme on an exceptional basis. These may include renewable technologies such as solar water heating. Directing support towards the most energy inefficient homes, perhaps by establishing a target household energy efficiency rating for all homes treated, would make the most effective use of the Department's resources. This could require limiting any spending on energy efficient homes and on some measures which have little impact on fuel costs; and
 - *Contract management.* The Department should consider whether the substantial increase in the cost of measures is justified and whether a different specification or approach to sub-contracting could potentially reduce costs. There is a need to ensure that timeliness and quality standards are delivered consistently and that where there are ambiguities in the technical specification, that these are resolved and the targets revised accordingly. The Department should also monitor Eaga's financial performance and ensure that it enforces the profit sharing clause in the Contract.
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Part One:
Warm Homes and fuel poverty



Part one: Warm Homes and fuel poverty

Warm Homes

- 1.1 Warm Homes replaced the Domestic Energy Efficiency Scheme in July 2001. It is based upon a similar scheme in England called Warm Front, which has operated since June 2000. Warm Homes provides grants to vulnerable householders (those on specific benefits and who have a disability or are over 60 years old or have children) for the costs of home insulation measures, such as cavity wall and loft insulation. In addition, grants are available under the banner of Warm Homes Plus to vulnerable householders over 60 years old for the installation of new heating systems. The current maximum grants are £850 for insulation measures under the Scheme and £4,300 for insulation and heating systems under Warm Homes Plus.
- 1.2 The Scheme is funded and overseen by the Department for Social Development (the Department). Scheme management is delegated under contract to Eaga plc (Eaga) which is responsible for marketing, administration and managing the delivery of energy efficiency measures to households by its sub-contractors (Eaga carries out a similar function for Warm Front in England, and for the Home Energy Efficiency Scheme in Wales). The Northern Ireland Housing Executive (NIHE) performs some key client functions, making payments to Eaga under the contract and quality assuring the work carried out in homes.
- 1.3 The scale of Warm Homes has grown substantially since 2001 (**Figure 1**). The Department's expenditure of £98.2 million, to March 2008, includes £12.5 million fees

Figure 1: Warm Homes Scheme expenditure¹ by the Department and households treated annually, 2001 to 2008

Year	Expenditure (£s)	Households
2001-02	4,327,000	3,826
2002-03	8,984,000	7,484
2003-04	10,672,000	7,124
2004-05	13,633,000	8,557
2005-06	16,447,000	10,266
2006-07	22,143,000	11,687
2007-08	22,025,000	11,279
Total	98,231,000	60,223

Note: ¹In addition to the £98.2 million spent by the Department, a further £10.8 million was spent on the Scheme by NIE, funded by the energy efficiency levy.

Source: *the Department*

paid to Eaga, the scheme manager, and £85.7 million on the energy efficiency measures; a further £10.8 million from Northern Ireland Electricity Energy Ltd (NIE) was spent where the costs of the energy efficiency measures required by households exceeded the Warm Homes Plus maximum grant. The growth in expenditure reflects not just the increased activity in Warm Homes over this period, but also the increased costs of installing energy efficiency and heating measures. To meet these costs and to ensure that households continued to receive appropriate assistance, the maximum grant amounts available also increased from £750 and £2,700 to the current levels, for insulation measures and Warm Homes Plus respectively.

1.4 Eligibility for the Scheme is limited to the vulnerable. The Department has defined vulnerable householders as being amongst three main groups: those with children and in receipt of specific benefits; people with disabilities receiving specific benefits; and the over 60s receiving specific benefits. Any of these groups living outside the social rented housing sector are eligible to receive Warm Homes' grants.

1.5 The receipt of a specific benefit is the key to eligibility. The definition of a fuel poor household is one where more than 10 per cent of income is spent on energy costs. In the Department's view, a test to establish the income and fuel costs of an applicant to the Scheme would be intrusive and difficult to administer. Consequently, it has identified a number of benefits, the receipt of which constitutes a 'passport' to eligibility for a grant (Figure 2).

Figure 2: Eligibility criteria and measures available

Eligibility criteria	Measures available
<p>Householders of any age (the applicant or their spouse) who have a child under the age of 16 and who are in receipt of one or more of the following benefits:</p> <ul style="list-style-type: none"> • Housing Benefit • Rates Rebate • Income Support • Income Based Job Seekers Allowance • Child Tax Credit & NHS Tax Exemption Certificate (can apply to children over the age of 16 in full time education) • Expectant mothers in receipt of a Maternity Certificate (MAT B1) and one of the above benefits. <p>Householders under the age of 60 (the applicant or their spouse) who are in receipt of one or more of the following disability related benefits:</p> <ul style="list-style-type: none"> • Disability Living Allowance • Housing Benefit (with Disability Premium) • Rates Rebate (with Disability Premium) • Income Support (with Disability Premium) • Working Tax Credit (with Disability Premium) & NHS Tax Exemption Certificate • War Disablement Pension (with Mobility Supplement or Constant Attendance Allowance) • Industrial Injuries Disablement Benefit (with Constant Attendance Allowance) 	<ul style="list-style-type: none"> Cavity wall insulation Reflective radiator panels (solid walls only) Loft insulation Draught proofing to windows and doors Hot water tank jackets Compact fluorescent lamps Energy advice Benefits health check

Part one: Warm Homes and fuel poverty

Figure 2 (continued): Eligibility criteria and measures available

Eligibility criteria	Measures available
<p>Householders who are 60 years and over and are in receipt of one or more of the following benefits:</p> <ul style="list-style-type: none"> • Rate Rebate • Housing Benefit • Pension Credit • Income Based Job Seekers Allowance • Attendance Allowance • Disability Living Allowance • Working Tax Credit (with Disability Premium) & NHS Tax Exemption Certificate • Industrial Injuries Disablement Benefit (with Constant Attendance Allowance) • War Disablement Pension (with Mobility Supplement or Constant Attendance Allowance) 	<p>Warm Homes Plus, including all of the above, plus:</p> <p>Conversion of an existing bottled gas, solid fuel central heating system or Economy 7 to oil or natural gas</p> <p>Installation of a new fully controllable, energy efficient oil or gas central heating system</p> <p>Repair/upgrade of an existing oil/natural gas central heating system</p>

Source: Eaga plc

- 1.6 Once accepted, applicants can receive a range of heating and insulation measures, depending on their circumstances. Those aged below 60 qualify for Warm Homes and can receive insulation measures only. The over 60s qualify for Warm Homes Plus, and are eligible for heating and insulation measures up to the £4,300 grant maximum. Unlike Warm Front in England, where householders meet the excess costs of measures over the grant maximum, Warm Homes requires no financial contribution from the householder. Where the cost of the measures installed is higher than the maximum grant, the difference is made up by the NIE contribution to the Scheme.
- 1.7 A comparison of the grant levels, eligibility criteria and measures available within the various government energy efficiency schemes in the UK is shown at **Appendix 1**.
- 1.8 The process for getting help under the Scheme is relatively straightforward. Eaga markets Warm Homes to generate enquiries from eligible householders. Some basic questions, over the telephone or in a postal application, establish whether the applicant appears eligible for assistance. If so, a surveyor visits the household to confirm eligibility and to assess what heating and/or insulation measures should be installed. Subsequently, more detailed technical surveys are carried out by the registered installers sub-contracted by Eaga, to confirm what work is required before undertaking the installation. Eaga then completes quality assurance checks on the finished work.
- 1.9 Heating and insulation measures installed under the Scheme have resulted in warmer, more comfortable homes, with lower energy

bills, for thousands of households since 2001. The Scheme is popular amongst those receiving assistance. Annual surveys conducted by Eaga and by NIHE show customer satisfaction ratings consistently above 90 per cent.

Fuel poverty

1.10 Fuel poverty is, principally, a function of three distinct features:

- low household incomes;
- high energy prices; and
- inefficient home heating and insulation.

Northern Ireland has the highest rate of fuel poverty in the UK. The 2001 Northern Ireland House Condition Survey (NIHCS) estimated that 203,000 households (33 per cent of the total) fit the definition of 'fuel poor'. This estimate was significantly higher than equivalent estimates for Scotland (17 per cent) and England (9 per cent). While the 2004 interim NIHCS estimated that fuel poverty had reduced, affecting 153,000 households (24 per cent), this rate was more than three times higher than the North East of England, the worst affected English region.

1.11 The NIHCS presents a picture of fuel poverty in Northern Ireland. The 2004 estimates show that:

- fuel poverty is highest amongst owner occupiers and those who rent their homes privately;

- pensioners are the largest single group amongst the fuel poor. More than 40 per cent of all pensioners are in fuel poverty;
- 28 per cent of fuel poor households are headed by someone in work - the 'working fuel poor'; and
- 40 per cent of the fuel poor live in rural areas.

It is expected that the 2006 NIHCS will show an increase in fuel poverty due to the world-wide increases in the cost of energy in this period. The results of the 2006 NIHCS are due to be published in September 2008.

1.12 The effects of being fuel poor are hard to quantify in definitive terms, but are undoubtedly severe. It is estimated that more than 1,000 older people die due to the cold every year. Illnesses such as 'flu, heart disease and strokes are more prevalent and their effects worsened. It also impacts upon the quality of life of those affected, with reports of increased stress, isolation and loneliness. The Department estimates that ill health associated with cold weather costs the National Health Service around £40 million a year.⁴

What we did

1.13 We evaluated the contribution made by Warm Homes towards the strategic objective set out in 'Ending Fuel Poverty: A Strategy for Northern Ireland' of eliminating fuel poverty amongst vulnerable households by 2010. In particular, we considered

4 Speech by Margaret Ritchie, Minister for Social Development, 29 May 2007.

Part one: Warm Homes and fuel poverty

whether the Scheme's performance is managed to maximise its contribution to the strategic objective of eliminating fuel poverty, addressing these key questions:

- do the Warm Homes Scheme grants reach the vulnerable fuel poor?
- do grants provide significant home heating and insulation measures?
- is the contract managed effectively to deliver the best outcomes for the fuel poor and the taxpayer?

1.14 We used a variety of methods to gather our evidence. We interviewed senior officials in the Department, the NIHE and in Eaga plc and examined the data and files held by them. We worked closely with the Department's officials responsible for letting and managing the new contract. We sought the views of stakeholders in the Northern Ireland Fuel Poverty Advisory Group⁵, individually and in a focus group. We also considered the findings of the National Audit Office review of Warm Front in 2003⁶ and the subsequent work to assess the impact of its recommendations.

1.15 Our report considers:

- the performance management arrangements for Warm Homes, and its impact in reducing fuel poverty in Part 2;
- the eligibility criteria, and whether grants are reaching the vulnerable fuel poor in Part 3;
- the measures available under the Scheme and if they are effective at improving energy efficiency in Part 4; and
- the management of the Contract in Part 5.

⁵ The Northern Ireland Fuel Poverty Advisory Group comprises experts from a wide variety of organisations in the public, private, voluntary and community sectors. It advises Government on the nature and extent of fuel poverty in Northern Ireland, provides views on the Fuel Poverty Strategy, policies and initiatives, considers the effectiveness of policies and identifies the barriers and solutions to reducing fuel poverty.

⁶ *Warm Front: Helping to Combat Fuel Poverty*, NAO June 2003 HC 769.

Part Two:
Performance management of Warm Homes



Part Two: Performance management of Warm Homes

- 2.1 Performance management is now recognised widely as being key to improving public services.⁷ A performance management system provides a framework for planning, monitoring, reviewing and revising what an organisation does to achieve its strategic objectives. The performance management system needs to be integrated with resource management, to ensure the necessary financial and other resources are available to support the delivery of the objectives, and with risk management arrangements to ensure that any risks to achieving the objectives are identified and managed.
- 2.2 This part of our report considers the effectiveness of the Department's performance management arrangements for Warm Homes.

Strategic targets and milestones exist but the impact of Warm Homes is not being measured

- 2.3 The Department's 'Ending Fuel Poverty: A Strategy for Northern Ireland' (2004) established a clear target to eliminate fuel poverty amongst vulnerable households (see Figure 2) by 2010, and in non-vulnerable households by 2016, subject to the availability of the necessary resources. The Strategy also established a series of milestone targets to achieve the 2010 target (Figure 3).
- 2.4 These targets include vulnerable households in the social rented sector. There are no specific milestone targets for ending fuel poverty amongst the vulnerable owner

Figure 3: Milestone targets

Year	Number of vulnerable households that suffer fuel poverty
2004	158,000
2005	138,000
2006	110,000
2007	80,000
2008	50,000
2009	20,000
2010	0

Source: the Department

occupiers and private renters for whom Warm Homes is designed. The contribution of Warm Homes to achieving the target is therefore not being measured directly.

Operational targets are being exceeded but they do not provide a useful measure

- 2.5 The Department has identified annual targets for households assisted by Warm Homes (Figure 4). These have generally been exceeded by actual performance.
- 2.6 These targets do not, however, provide a useful measure of the Scheme's contribution to eliminating fuel poverty. In particular, they do not take account of the reduction in household fuel poverty resulting from Warm Homes' measures.
- 2.7 A household assisted with, for example, energy efficiency advice and compact

⁷ *Devolution decision making - Delivering better public services: refining targets and performance management* HM Treasury and Cabinet Office, March 2004.

Figure 4: Warm Homes' performance, 2001 to 2008

Year	Target households assisted	Actual households assisted
2001-02	4,250	3,826
2002-03	6,250	7,484
2003-04	6,250	7,124
2004-05	8,250	8,557
2005-06	8,250	10,266
2006-07	10,000	11,687
2007-08	10,000	11,279

Source: the Department

fluorescent light bulbs counts equally for measuring performance with a household where the full range of heating and insulation measures have been installed. Yet the improvement in energy efficiency (as measured by the household's SAP rating⁸), and consequently the impact on fuel poverty, in the first household is likely to be minimal compared to the impact achieved in the second household. The Department does not collect information about the improvement in energy efficiency per household from the scheme manager, which would provide a ready basis for measuring Warm Homes' performance. The Department told us that it is monitoring the use, in GB, of a fuel poverty indicator tool developed by the Centre for Sustainable Energy and the University of Bristol. It is to consider the effectiveness of the tool in the Northern Ireland context and will also commission work to map fuel poverty in Northern Ireland

which, in its view, may provide a more effective indicator tool.

- 2.8 If the Strategy is to eliminate fuel poverty for vulnerable households, then a measure that reflected the movement of households out of fuel poverty as a result of Warm Homes' intervention would be the best indicator of performance. It is notable that in 2004, the Department for Environment, Food and Rural Affairs (DEFRA) in England introduced a target SAP rating of at least 65 for the energy efficiency of any household treated by Warm Front, being of the view that this level of home energy efficiency presents a minimal risk of fuel poverty.
- 2.9 The Department informed us that its targets for the Warm Homes Scheme were developed within a context of a smaller budget but were not revisited as the budget increased year on year. It also informed us that it is developing a more meaningful target, relating directly to the alleviation of fuel poverty, to be included as part of a revised Warm Homes Scheme. While some operational changes have already been made to the current scheme in line with the findings of our report, a number of other changes, including eligibility criteria, are policy changes which require equality assessment, public consultation and translation into subordinate legislation before a revised scheme can be adopted. The Department plans to have a draft Warm Homes Scheme document ready by July 2008 which will then be subject to consultation and which will form the basis for the procurement exercise to select a new scheme manager.

⁸ SAP is the Government's Standard Assessment Procedure for Energy Rating of Dwellings. The current specification, SAP 2005, measures energy efficiency on a scale from 1 (least efficient) to 100 (most efficient).

Part Two: Performance management of Warm Homes

Fuel poverty has increased since 2004

2.10 The Department relies on the data from the NIHCS to derive its estimates of the extent of fuel poverty and consequently monitor the achievement of its targets. The latest NIHCS was completed in 2006 after the previous full survey in 2001. An interim survey took place in 2004. As the NIHCS is carried out every five years, with an interim survey in between, the Department does not have an effective mechanism to continuously monitor progress. Without this, it is difficult for the Department to react swiftly to changing demands for resources or to emerging risks.

2.11 Previous results from the NIHCS have indicated good progress being made. The interim survey in 2004 estimated that fuel poverty in vulnerable households had decreased to 126,000, against a target of 158,000. The results of the 2006 survey, however, indicate that this progress has not been maintained. The number of households in fuel poverty rose to 225,500, compared with the target of 110,000. Around 34 per cent of households are now fuel poor. This compares with 27 per cent (167,000 households) in 2001, based on the 2006 NIHCS methodology. The goal of eliminating fuel poverty amongst vulnerable households by 2010 was always a challenging one, but the current rate of progress suggests that it is now unrealistic. The rise in energy costs since 2004 is accepted widely as the key factor in this situation.⁹

2.12 It is arguable that the strategic objective was never likely to be achieved. It required at least 158,000 vulnerable households to be

taken out of fuel poverty between 2004 and 2010, without any others falling into fuel poverty during this period. A proportion of these households, 37 per cent, were in social housing and therefore outside the scope of Warm Homes. Accordingly, almost 100,000 households needed to receive a Warm Homes grant between 2004 and 2010 to achieve the objective, an average of more than 16,500 annually. Yet the operational targets for Warm Homes were to treat 8,250 households in 2004-05 and 2005-06, and 10,000 thereafter. While actual performance has bettered this, the scheme has not treated 12,000 households in any year and if the current rate of activity is maintained, Warm Homes will have provided around 66,000 grants by 2010.

2.13 There are also limitations inherent in any approach to tackling fuel poverty based on improving household energy efficiency. While energy efficiency measures make homes more comfortable and easier to heat they do not affect household income and the benefits of lower heating costs can be quickly eroded by rising energy prices. It is notable that analysis of the results from the 2001 NIHCS¹⁰ estimates that even if all households in Northern Ireland were brought to an acceptable level of energy efficiency, 17 per cent would still be in fuel poverty.

Warm Homes has adapted to meet some emerging challenges

2.14 The Scheme has grown significantly in expenditure and in the numbers of households treated since its introduction in 2001. This is partly a consequence of new

⁹ The price of standard crude oil on the New York Mercantile Exchange was \$40 a barrel in June 2004. In January 2008 it was \$100 a barrel.

¹⁰ 2001 Northern Ireland House Condition Survey, NIHE.

sources of funding being made available - for example, the Government's Environment and Renewable Energy Fund contributed more than £9 million to the Warm Homes budget between 2006-07 and 2007-08 - but it also reflects the increasing costs of the Scheme's measures. Grants for heating systems, in particular, rose from an average of £2,628 in 2001 to £2,907 in 2004, and by 2006-07 the average grant had reached £3,859.

2.15 Some changes have been made in reaction to risks identified as a result of the Department's monitoring. In 2004 the Department completed an internal review of the Scheme which took account of several issues highlighted in reports by a number of stakeholders, including National Energy Action (NEA), the General Consumer Council for Northern Ireland and the NAO's 2003 review of Warm Front⁶. Subsequently, changes were introduced to the measures available, such as extending the eligibility criteria to include the over 60s receiving disability related benefits, the provision of the first annual service to a newly installed heating system, and the benefits health check.

2.16 Otherwise, Warm Homes remains much as it was in its first year. A number of the risks identified by the Department and other stakeholders, including several highlighted in this report - the exclusion of some fuel poor households from the Scheme, the problem of 'hard to treat' homes and the limited effectiveness of some energy efficiency measures in lifting households from fuel poverty - have not so far been addressed.

2.17 In May 2008, in response to the recent significant increases in fuel prices, the Social Development Minister established a Fuel Poverty Task Force to identify how fuel poverty can be addressed for the coming winter. The Task Force brings together all of the main stakeholders in the energy sector to identify practical ways of helping the most vulnerable and it is to report back to the Minister before the end of summer 2008. The Department informed us that it would be the Minister's intention to then seek the Executive's support for a package of short-term measures to assist the most vulnerable fuel poor.

Part Three:
Eligibility and grant take-up



Part Three: Eligibility and grant take-up

- 3.1 Reaching the right people is essential to the success of Warm Homes. To achieve this, the Scheme should be marketed effectively to generate applications; the eligibility criteria should focus assistance on the vulnerable fuel poor; and grants should be targeted at those most in need.
- 3.2 This part of the report examines whether Warm Homes is effective in targeting the vulnerable fuel poor for help.

Warm Homes' benefits are considerable

- 3.3 The Scheme has assisted 60,223 households since 2001¹¹. Its popularity amongst its customers remains very high, as measured by the satisfaction surveys completed by the scheme manager and by the NIHE:
- 93 per cent of customers were satisfied or very satisfied with their new heating system;
 - 94 per cent were satisfied with their insulation measures; and
 - overall satisfaction with the scheme is more than 90 per cent¹².
- 3.4 Warm Homes' grants have helped to improve the energy efficiency of thousands of homes. In 2006-07 the average improvement for homes treated was 20 SAP points (the latest available figures). Insulation and heating measures have also served to cut carbon dioxide emissions and led to warmer, healthier homes for some of the most vulnerable people in society.

The Scheme's marketing is very effective

- 3.5 The scheme manager, Eaga plc, works with a wide variety of organisations to publicise Warm Homes and generate referrals from potential applicants. These include organisations in the National Health Service (NHS), the voluntary sector, energy companies and local authorities. Politicians from all parties have also been engaged to publicise the Scheme. Other typical marketing activity includes mail shots, directly by Eaga and in conjunction with other organisations such as the NIHE.
- 3.6 This has been effective in generating interest. By the end of 2003-04, Eaga had received 13,000 enquiries in response to its marketing activity in the year. The Department's evaluation of Warm Homes in 2004 concluded that... *"Eaga's sustained marketing activity has ensured that high levels of referrals are achieved... across the whole of Northern Ireland."* Other stakeholders we consulted expressed consistently positive views of the success of Eaga's marketing strategy.

Passport benefits may not be effective in targeting the vulnerable fuel poor

- 3.7 Passport benefits undoubtedly provide a convenient mechanism for allocating Warm Homes' assistance. While a more complicated eligibility test to identify vulnerable households in fuel poverty would guarantee that the Scheme's help was directed towards those most in need, there would be a number of drawbacks. An objective test of household income would be

¹¹ To 31 March 2008.

¹² Typical responses from several customer satisfaction surveys by Eaga and NIHE.

feasible, but more of an administrative burden than current arrangements. The income test would need to be matched with a test of household spending on energy which would be equally taxing. However, the difficulties of this kind of approach are most apparent when the effects of 'churn' - the movement of households into and out of fuel poverty over time, as fuel costs and income rise and fall - are taken into account.

- 3.8 A modest rise in income can be enough to lift a household out of fuel poverty, under the Government's definition. A subsequent rise in fuel costs can bring that same household back into fuel poverty. Even the apparently simple relationship between income and fuel costs can be complicated by the effects of the seasons: the lower demand for energy may mean that a low income household is not fuel poor in the summer months, but becomes so as winter draws in and its demand for heating and lighting increases. For all these reasons, eligibility criteria based on household income and spending on energy would be complex to administer and possibly act as a disincentive to applicants.
- 3.9 Nevertheless, the evidence is that the current arrangements do not direct Warm Homes' assistance to those who need it most. A study by National Energy Action (NEA) in 2003¹³ suggested that 40 per cent of grants went to households that were not fuel poor, principally due to the presence of non-means tested benefits amongst the passport benefits that determine eligibility.
- 3.10 Attendance Allowance and Disability Living Allowance are not means tested and consequently are not reliable as indicators of

poverty. In 2006-07, 5,524 grants for heating and insulation worth £7.9 million were awarded to applicants receiving these benefits. This represented 39 per cent of the Warm Homes' budget for energy efficiency measures spent on households that may not have been experiencing fuel poverty.

- 3.11 The Department considers that the current eligibility criteria for Warm Homes are fairly robust, as most of those assisted are on income related benefits and consequently in fuel poverty. While it acknowledged that some of those assisted, because they receive a non-means tested disability benefit, may not be in fuel poverty, it considered, on balance that most probably are. However, it also informed us that it will give consideration to either changing the eligibility criteria or introducing some form of means testing, although, in its view, a balance needs to be struck, as means testing can be cumbersome and expensive.

Unclaimed benefits are a barrier for potential applicants.

- 3.12 Pensioners are the biggest single group amongst the fuel poor: 54 per cent of those in fuel poverty are over 60. The Department's estimates of benefits taken up suggest that as many as 51 per cent of eligible pensioners do not claim Pension Credit¹⁴, a passport benefit for Warm Homes. Estimates of take-up for Income Support and Jobseeker's Allowance amongst non-pensioners also reveal significant proportions of unclaimed benefits¹⁵. Benefits health checks could play an important role in increasing the proportion of claimants receiving their benefits entitlements. These were made available to successful

¹³ *A fuel poverty solution? Assessing the effectiveness of the Warm Homes Scheme*, National Energy Action (NEA) 2003.

¹⁴ Income related benefits estimates of take-up in Northern Ireland 2004-06.

¹⁵ Up to 23 per cent of those eligible do not claim Income Support. Up to 39 per cent of those eligible do not claim Jobseeker's Allowance.

Part Three: Eligibility and grant take-up

applicants to Warm Homes from July 2006, but presently are not provided to rejected applicants, that is, those not already receiving a passport benefit.

- 3.13 This appears to be a missed opportunity. Providing benefits health checks to those not currently receiving a passport benefit could not only widen access to the Scheme, by identifying eligibility to benefit, but also help to alleviate fuel poverty through the consequent increase in household income. The benefits health checks provided to successful applicants since July 2006 have identified an additional average weekly benefit increase of £22.82 for 751 households¹⁶.

Some groups are excluded from the Scheme

- 3.14 The working fuel poor - the low waged employed or self employed - comprise 28 per cent of the total group¹⁷, but are unlikely to receive passport benefits and so do not benefit from the Scheme. 'Near benefit' pensioners and adults below 60 years old on benefits, but without dependent children or a disability, are also outside the eligibility criteria. The Department considers that other assistance schemes provided from the Fuel Poverty Partnership Fund, funded by contributions from the energy companies, local councils and the NHS as well as the Department and delivering similar forms of assistance to Warm Homes, represent a means to address the needs of these groups. These schemes aimed to assist more than 1,100 households in 2006-07, compared with the Warm Homes target of 10,000, but access to support depends on a number of criteria - some of them benefit-based - and

it is difficult to see how sufficient numbers will be helped. Certainly, some effective form of assistance will be necessary if the Government is to achieve its target of eradicating fuel poverty amongst all groups in society by 2016.

- 3.15 The Department, acknowledges that the working fuel poor were excluded from the Warm Homes Scheme but considered many households from this group had benefited from the Fuel Poverty Partnership Fund. It also informed us that it had commissioned research from National Energy Action to examine how the working fuel poor can be identified and how those most in need could be brought into the Warm Homes Scheme within existing resources. The research will also include those pensioners who do not qualify for, or who have not applied for Pension Credit.

There is targeting of those in the greatest need but some gaps exist

- 3.16 The focus of Warm Homes' attention on the over 60s, people with disabilities and those with children demonstrates the Government's commitment to meeting the needs of the most vulnerable in society. The targeting of the over 60s for additional heating measures, beyond the insulation measures available to the other groups, is also a clear statement of priorities. There remains scope for further targeting of assistance to meet the needs of the most vulnerable.
- 3.17 Warm Homes assistance has been provided strictly on a 'first come, first served' basis to any household that meets the eligibility

¹⁶ *Tackling Fuel Poverty: A Partnership Approach*, Northern Ireland Fuel Poverty Advisory Group 2007 Annual Report.

¹⁷ *Interim Northern Ireland House Condition Survey 2004*, Northern Ireland Housing Executive.

criteria. The Department has a rule of thumb that 33 per cent of grants should go to the over 60s for heating measures, but this is not a formal target. There are no prescribed mechanisms to direct assistance towards the neediest, such as those experiencing severe ill-health or those who spend 20 per cent or more of household income to meet the costs of fuel, the 'extreme fuel poor'.

- 3.18 There are cases of specific targeting of the most vulnerable where, for example, Eaga has prioritised the household survey for some individuals after representations from a doctor or MLA. This is comparatively rare: Eaga receives, at most, 50 such representations per year. However, all allocations of work to sub-contractors were made strictly on the basis of date of referral until April 2008. In response to the increased demand and lengthening waiting lists for heating systems the Department has introduced prioritisation of applications aimed at those in greatest need. From April 2008 Eaga is required to prioritise applications from the most vulnerable households with no central heating, followed by households with expensive solid fuel or electric central heating. This approach is to be carried forward into a revised Warm Homes Scheme (paragraph 2.9).

Grant allocations are concentrated in urban areas

- 3.19 The rural fuel poor account for 40 per cent of the total group, more than 50,000 households. Eight per cent of the fuel poor live in small rural settlements, while 32 per cent are in isolated rural households. Rural

households are statistically more likely to be less energy efficient and not connected to the gas network. Accordingly, the rural fuel poor can be seen to have greater needs than those in urban areas.

- 3.20 Eaga markets the Scheme across Northern Ireland. It does not monitor grant take-up between urban and rural areas and there are no mechanisms to prioritise help for the rural fuel poor. The Department for the Environment, Food and Rural Affairs (DEFRA), in 2004, reported that less than 10 per cent of grants awarded by the Warm Front Scheme in England went to rural households and stakeholders agree generally that the distribution of grants in Northern Ireland is unlikely to be very different. Analysis of Warm Homes' grants awarded in January and February 2008 shows that 15 per cent went to isolated rural households.
- 3.21 Isolated rural areas appear to be significantly under-represented. While it is acknowledged that it is easier to identify the fuel poor and to generate applications for assistance in urban areas, more needs to be done to target the rural fuel poor if Warm Homes is to be successful.

Warm Zones provides a model for targeting assistance

- 3.22 Area based approaches to provide a coordinated set of benefits advice and energy efficiency measures to the fuel poor have proved successful. Amongst the pioneers of these was the Beechmount Energy Efficiency Project in Belfast, funded

Part Three: Eligibility and grant take-up

primarily by the Department, which began in 1999. An evaluation of this scheme in 2002 concluded that it had been largely successful in improving energy efficiency and alleviating fuel poverty: the average SAP rating per household increased from 38 to 68, with average household savings on annual energy costs of £535. Other reported benefits included an average 7 per cent increase in disposable income per household, better health and reduced carbon dioxide emissions.

3.23 During this period, a similar approach was taken by the Armagh and Dungannon Health Action Zone. A summary of the 'Home is Where the Heat is' project and its achievements is shown at **Appendix 2**. More recently, the approach has been taken up by Warm Zones in a number of areas in England (**Figure 5**).

3.24 Warm Zones pilots began in five areas in England in 2001. The pilots were independently evaluated on behalf of DEFRA and the Department of Trade and Industry¹⁸. The results showed that a Warm Zone could reduce fuel poverty in a local area by between 20 per cent and 30 per cent, over a period of 3 to 4 years. The role of locally based 'enablers' to carry out the doorstep assessments and facilitate access to assistance is crucial to success.

3.25 There are now thirteen Warm Zones-type areas in England. The programme has proved successful in supporting households which had previously not taken up the help available from, for example, Warm Front. Hard to reach households in Northern Ireland, such as those in rural areas, could benefit from a similar approach.

Figure 5: Warm Zones

Warm Zones in England is a large scale, area-based programme delivering a targeted approach to identify fuel poor households and deliver the benefits of energy efficiency improvements and maximised income. Warm Zones is part of National Energy Action the national fuel poverty charity.

Warm Zones works in partnership with local authorities, energy suppliers and others to broker funds from a variety of sources to deliver benefits such as: energy efficiency, carbon savings, fuel poverty reduction, benefits advice, health improvements, fire and home security, employment skills and training.

The approach is based on the systematic assessment of households in a given geographical area to establish energy efficiency standards, income levels, fuel poverty status and eligibility for a range of grants and other services. The local partnerships then coordinate the delivery of a range of energy efficiency programmes (including Warm Front), integrated with support for income maximisation through benefits take-up, and added social inclusion, health and well-being initiatives.

Source: *Warm Zones Ltd*

Part Four:
Energy efficiency measures



Part Four: Energy efficiency measures

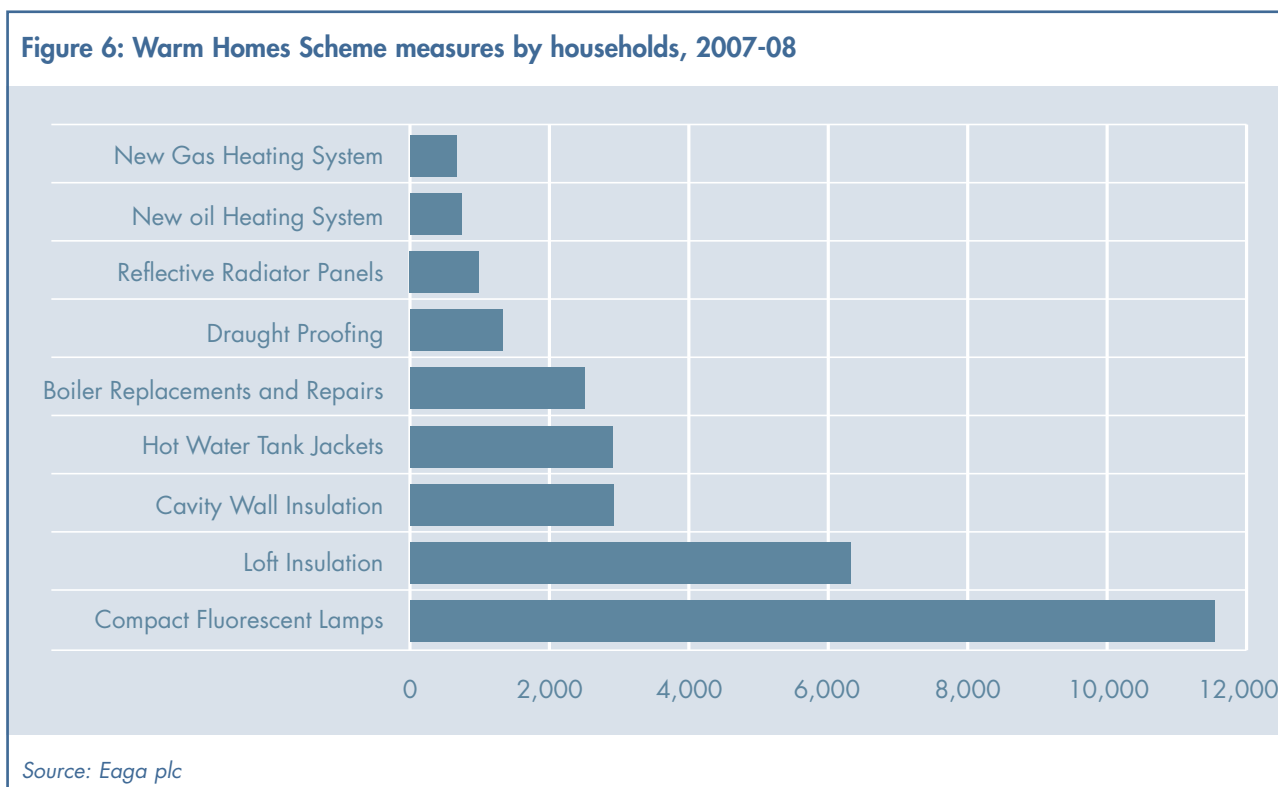
4.1 Delivering effective home heating and insulation measures is the key to maximising Warm Homes' impact. However, household energy efficiency is only one of three factors impacting on fuel poverty – the other two factors, household income and fuel prices, are both outside the Department's control. In a situation where fuel prices increase more quickly than household income, increasing energy efficiency becomes more important in making homes easier to heat and helping lift them out of fuel poverty. Therefore, the measures offered by Warm Homes should provide significant improvements in household energy efficiency.

4.2 This part considers the effectiveness of the energy efficiency measures delivered by Warm Homes.

Warm Homes offers a wide range of measures

4.3 The energy efficiency measures offered by the Scheme are based largely on those offered by Warm Front in England (**Figure 6**). These were developed with the Building Research Establishment to maximise the reduction in fuel costs and increased warmth from the funding then available. The availability of oil fired central heating in Warm Homes since its inception, which only became available from Warm Front in 2005, reflects the tailoring of the scheme to fit the energy market in Northern Ireland¹⁹.

4.4 The wide range of measures available provides considerable flexibility to choose the most effective means of improving



¹⁹ Given the limited gas network, 70 per cent of central heating systems in Northern Ireland are oil fired.

households' energy efficiency. The Scheme's rules allow the installation of all available measures where they do not exist, subject to the maximum grant. In cases where the cost is greater than the maximum grant, the NIE contribution is used to bridge the gap. This contribution counts towards NIE's targets under the energy efficiency levy programme²⁰.

- 4.5 NIE has contributed £10.8 million to Warm Homes since 2001-02, spending £1.9 million in 2006-07 to fund improvements to nearly 1,500 homes. As a result of a review of the Energy Efficiency Levy in 2006, the Northern Ireland Authority for Utility Regulation has recommended that this contribution be phased out over the period 2008 to 2010, with NIE spending £1 million in 2008-09 and £500,000 in 2009-10. If the Scheme is to continue in its current form, the Department will either have to seek additional funding from Warm Homes' customers or other sources, increase its own contribution to match the shortfall or install fewer measures in fewer homes.

Some eligible households are not well served

- 4.6 Heating systems are restricted to eligible applicants over 60 years of age. For the majority of Warm Homes' customers, assistance is limited to insulation measures only. This improves the energy efficiency of the home and by reducing heat loss provides additional warmth. More than 9,000 households received insulation measures in 2007-08. Experience indicates, however, that insulation measures alone are unlikely to lift a household out of fuel poverty. It is notable that Warm Front in England has offered heating installations to all eligible applicants, not just those over 60, since July 2005.
- 4.7 Households living in 'hard to treat' homes accounted for 35-40 per cent of the fuel poor in 2004²¹. 'Hard to treat' homes are typically older, solid walled properties off the mains gas network. They may have little or no loft space. They are most commonly found in rural areas. As such, the range of energy efficiency measures that can be applied to them is limited: gas central heating is unavailable and cavity wall and loft insulation can not be installed.
- 4.8 Other solutions are limited. Oil fired central heating is available to qualifying applicants, but on its own is unlikely to raise household energy efficiency to an acceptable level. Alternative insulation measures can be inconvenient and expensive. Internal wall cladding projects into the room, reducing the available living space and typically costs £4,500 for an average semi-detached house²². External cladding of the outside walls is similarly costly. Neither treatment is available from Warm Homes.
- 4.9 The Department is committed to exploring renewable technologies and is engaged with Eaga in a two year pilot project to install solar panels to provide domestic hot water in 500 homes. While this can reduce running costs by 30-50 per cent, the initial costs of installation are high, around £2,700. The costs of such technologies are expected to fall in the longer term as the market for renewable energy develops, but

20 The Energy Efficiency Levy programme was introduced in 1997. NIE levied a charge per customer, to be used to implement energy efficiency schemes for domestic customers with the aim of reducing carbon emissions. Since eliminating fuel poverty became a Government priority, a major proportion of the funds raised have been used for this purpose, including contributing to Warm Homes.

21 *Are fuel poverty targets out of range?* UK fuel poverty monitor fourth year report, National Energy Action 2006.

22 Energy Saving Trust (www.energysavingtrust.org.uk).

Part Four: Energy efficiency measures

the current resources available for Warm Homes are a barrier to their widespread adoption. Nevertheless, solutions for 'hard to treat' homes will be necessary if the Department is to achieve its targets.

4.10 The Department informed us that it is working with NIE, through the Fuel Poverty Partnership Fund, to pilot solutions for 'hard to treat' homes in rural areas, with £300,000 having been allocated for 2008-09 to pilot and evaluate solid wall insulation in mainly rural areas, as well as a range of renewable technologies²³. The Department stated that it would have to be assured of the cost-effectiveness of the renewable technology in the alleviation of fuel poverty before it considered its use within the Warm Homes Scheme.

Some measures have little impact on household energy efficiency

4.11 Warm Homes' measures can make a significant difference to household energy efficiency. The average improvement in energy efficiency for households assisted in 2005-06 was 20 SAP points and an average running cost saving of almost £200 per year (Figure 7).

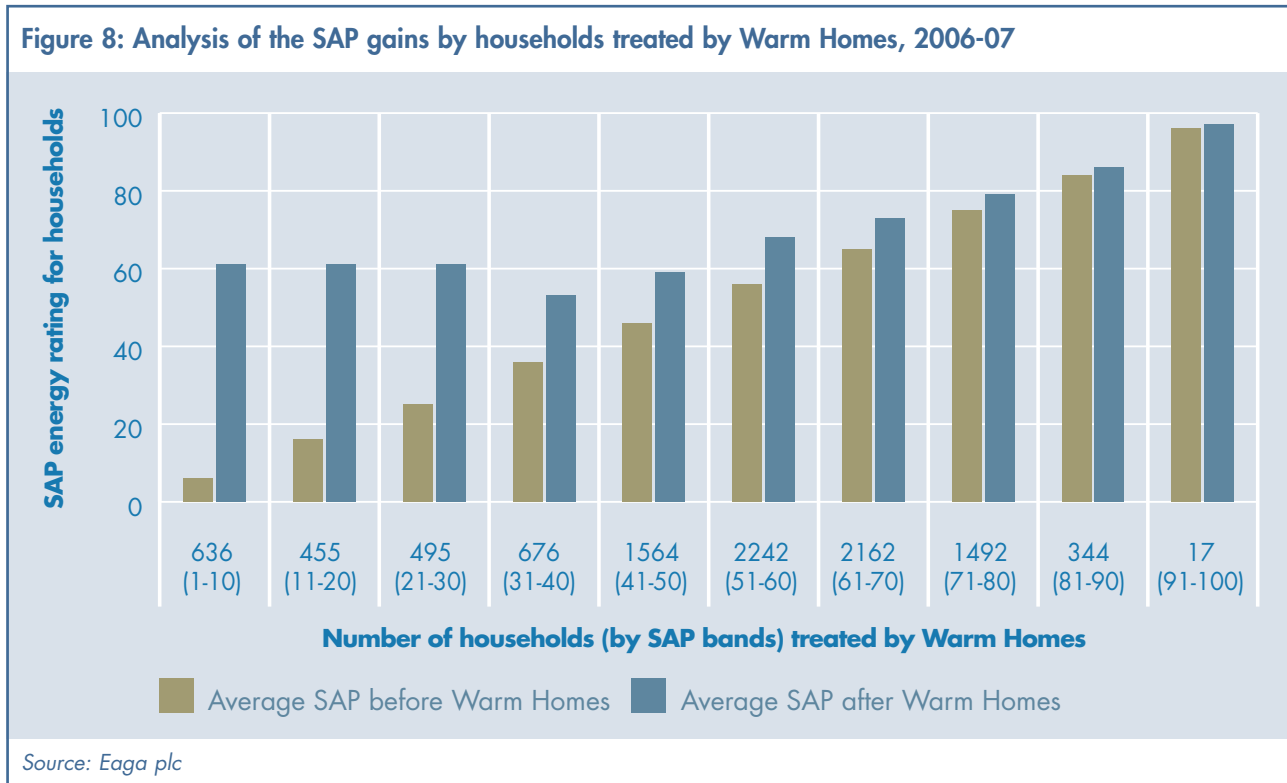
4.12 Households in the lowest SAP band experience the biggest increase in energy efficiency after treatment. Warm Homes takes no account of the existing energy efficiency of a household in its eligibility criteria. As a consequence, a significant proportion of the households assisted are already energy efficient. In 2006-07, the

Figure 7: Benefits of the Warm Homes Scheme, 2005-06

	Average Before Work	Average After Work	Average Gain	Total Gains
SAP Results	49.35	69.00	19.65	
Carbon Dioxide Emissions (tonnes/year)	10.61	8.39	2.23 (21%)	12,205.03
Carbon Savings (Tonnes)				3,328.64
Running Costs (£/year)	877.07	679.14	197.93 (22%)	
Energy Consumption (GJ/year)	122.75	100.12	22.63 (19%)	

Source: Eaga plc

23 Renewable technologies include solar photovoltaics (converting solar energy into electricity), solar water heating, biomass boilers and room heaters (typically wood burners).



Scheme provided help to 3,147 households (31 per cent of the total) with an initial SAP rating above 65 (Figure 8). This is the acceptable level for home energy efficiency at which a household can be assumed to be at a minimal risk of fuel poverty.

- 4.13 The impact of these grants was limited. The average increase in energy efficiency for homes with an initial SAP rating of 61-70 was less than 8 points. At higher initial SAP ratings, the average increase was smaller: an initial rating of 81-90 was increased by an average of only 2 points.
- 4.14 Given that they were already energy efficient, many of these homes with SAP rating over 60 received minimal treatment. In 2006-07, 1,310 households received

compact fluorescent light bulbs only, at a cost of around £13,000. This measure has no impact on the SAP rating and its financial benefit is less than £40 per year. Draught proofing measures, without further insulation or heating, were provided to 385 households. These can improve comfort in the home, but they have a minimal impact on SAP and their financial benefit is less than £20 per year per household. Warm Homes spent over £300,000 overall on grants to provide compact fluorescent light bulbs and draught proofing to homes in 2006-07. These grants could have provided nearly 800 cavity wall treatments or loft insulation measures, either of which would raise household SAP by up to 5 points.

Part Four: Energy efficiency measures

4.15 Warm Homes spent more than £10 million in 2006-07 replacing and repairing 2,637 existing central heating boilers that were old and no longer efficient. The impact of these measures, in terms of energy efficiency and fuel poverty, is uncertain. Some households can receive significant benefits in warmth and reduced fuel costs if a non-functional boiler has been repaired or replaced. Other households however, where one functional but aged appliance has been replaced by a newer, more efficient one, see little material difference in energy efficiency or fuel costs. At an average cost of £3,809 the value for money of these measures is questionable²⁴.

4.16 The benefits of grants to energy efficient households, and those to provide compact fluorescent light bulbs and draught proofing, are minimal, both in terms of improved energy efficiency and eliminating fuel poverty. The value for money achieved in boiler replacements and repairs is also questionable. Redirecting these grants towards the installation of higher impact measures in homes with lower initial SAP ratings would focus help on the most energy inefficient homes which are more likely to be in fuel poverty. The Department told us that it will examine the feasibility of using SAP ratings of households as a tool for measuring improvements and assessing the effectiveness of some of the specific measures currently available.

²⁴ This cost includes work necessary to the technical specification supplied by NIHE to bring the system in line with existing building regulations.

Part Five:
Management of the Warm Homes Scheme



Part Five: Management of the Warm Homes Scheme

Eaga plc, a leading UK energy efficiency company, is the Warm Homes Scheme manager

5.1 The Department appointed Eaga partnership (now Eaga plc) as the Warm Homes scheme manager on 1st July 2001 on a 3 year contract, with the option of 2 two year extensions. Eaga plc (Eaga) is a leading organisation in the management and delivery of the UK's grant-funded programmes aimed at tackling fuel poverty. In addition to managing the Warm Homes Scheme, it is the manager and principal contractor on the English Warm Front Scheme and the Welsh Home Energy Efficiency Scheme since they commenced in 2000, and it also ran the Warm Deal Scheme in Scotland until 2006 when British Gas took over running the scheme.

Roles and responsibilities

5.2 As the Warm Homes scheme manager, Eaga is responsible for overall co-ordination and the full range of services²⁵ for the Scheme, with the exception that it does not install the measures itself. Its Dungannon office, with some 36 staff, provides a contact centre and the main administration and technical functions for the Scheme throughout Northern Ireland, with its headquarters (in England) providing finance, contracting and training functions.

5.3 The public's contact with Warm Homes is through Eaga when applying for the scheme, and with the sub-contractors installing the insulation and heating measures. However, the Department has established a much wider framework of roles and responsibilities to manage the Scheme:

- the Department determines the policy and sets targets for the Scheme; it delegates operational activities to the scheme manager; and monitors the delivery of the Scheme;
- Eaga is responsible under the Contract for, amongst other things:
 - sub-contracting with registered installers for provision of the Scheme's measures, ensuring best price and appropriate quality
 - meeting a number of service delivery targets, for example waiting times
 - ensuring the standard of the insulation and heating installations; and
- the Northern Ireland Housing Executive, on behalf of the Department, has the dual role of processing payments to Eaga and assessing the Scheme's administration and quality of provision.

5.4 Achieving value for money depends to a significant extent on the effectiveness of the Department's monitoring of the provision of the Scheme. This part of the report considers the effectiveness of the arrangements for:

- controlling the costs of the Scheme;
- the timeliness and quality of provision; and
- the extension of Eaga's period as scheme manager and profit sharing under the terms of the Contract.

²⁵ Marketing; householder liaison; processing the Scheme's applications; the appointment, management and monitoring of sub-contractors; the management and disbursement of the Scheme's funds; carrying out household surveys; commissioning installations; inspecting completed installations; and monitoring and delivery against the Department's targets.

Costs of the Scheme have been increasing

5.5 Spend on the Scheme has increased annually, from £9 million in the first full year (2002-03) to over £22 million in 2007-08 (Figure 1). This is a result of a combination of factors including increasing numbers of households being treated, as well as increases in:

- the price of individual measures; and
- the grant maximum allowed for by the Department.

The cost of individual measures has increased substantially

5.6 Eaga, under the provisions of its Contract with the Department, sub-contracts the installation of the Scheme's measures to insulation and heating contractors. The sub-contracting process, which is managed at Eaga headquarters, initially involved separate tendering exercises for supplies and installation. This changed in November 2005, when contracts were let to installation contractors on a 'supply and fit' basis with the installation contractor sourcing the materials required, and 'harmonised' prices were set for installations. Harmonised prices for each measure are based on the average of the tender bids²⁶ submitted by contractors deemed suitable to provide the measures, and the same fixed harmonised price is offered to each qualifying contractor.

5.7 The prices for some of the main measures provided under the Scheme have increased substantially over the period of the Scheme (Figure 9):

- by 2004, the end of the third year of the Scheme, prices had increased by 15-16 per cent, double the increase in the Retail Price Index (RPI); and
- the prices increased further after re-tendering in November 2005; changes in building regulations requirements combined with price up-lifts resulted in prices 60 per cent to 80 per cent higher at December 2007 than at the start of the Scheme in 2001, and three to four times more than the RPI increase over the same period.

These increases in costs are reflected in the increase in the overall spend per household treated – the average cost per household was £1,130 in 2001-02 rising to £1,890 in 2006-07, a 67 per cent increase over the period.

5.8 While there are no direct comparisons readily available with GB, the prices of Warm Front heating installations in England are cheaper than the Northern Ireland Warm Homes Scheme (October 2007 prices):

- new oil heating installations
 - average cost in Warm Front is £3,700 (includes 5 radiators)²⁷
 - cost in Warm Homes is £5,000 (includes 7 radiators); and
- new gas heating installations:
 - average cost in Warm Front is £2,400 (includes 5 radiators)
 - cost in Warm Homes is £3,400 (includes 7 radiators).

²⁶ Eaga excluded the lowest 5 per cent and highest 5 per cent of bids from its calculation of the harmonised (average) price.

²⁷ Eaga indicated that this cost does not include the client contribution and as such is not directly comparable.

Part Five: Management of the Warm Homes Scheme

Figure 9: Changes in the price of the Scheme's heating system installations, compared with the 2001 baseline¹, and the Retail Price Index over the period of the Scheme

Measure	2001 Contract	Uplift October 2003	Uplift August 2004	Nov. 2005 Re-tender	Uplift April 2006	Uplift April 2007	Uplift December 2007
New oil heating system	£3,040	£3,290 (8%)	£3,530 (16%)	£4,000 (32%)	-	£5,000 (64%)	£5,390 (77%)
New oil heating system - from solid fuel heating	£2,635	£2,845 (8%)	£3,055 (16%)	£3,420 (30%)	-	£4,420 (68%)	£4,765 (81%)
New gas heating system	£2,340	£2,525 (8%)	£2,705 (16%)	£3,185 (36%)	£3,400 (45%)	-	£3,665 (57%)
New gas heating system - from solid fuel heating	£1,830	£1,975 (9%)	£2,110 (15%)	£2,595 (42%)	£2,805 (53%)	-	£3,025 (65%)
Year	2001	2002	2003	2004	2005	2006	2007
RPI (all items) – cumulative (2001 base year)	-	1.7%	4.6%	7.7%	10.8%	14.3%	19.2%

Note 1 percentage figures indicate the level of price increase compared with the 2001 baseline price

Source: Eaga plc

5.9 The Department commented that the increasing costs of the Warm Homes' measures were partly a result of increases in material costs and new building regulations, but that recently agreed modifications to the technical specifications for heating installations²⁸ will result in immediate reduction in costs. In addition, it said that it was piloting the use of qualified technical inspectors to carry out assessments and produce work schedules for the Warm Homes' measures to be installed. This was seen as having the potential to bear down on costs and make the quality assurance process simpler and more effective.

The Scheme's maximum grant has been increased

5.10 Grant limits have been set by the Department for the amount of public funding for measures which qualifying households receive under the Scheme. These limits changed over the period of the Scheme:

- the grant maximum for insulation measures increased from £750 (July 2001) to £850 from December 2006 – an increase of 13 per cent; and

²⁸ including smaller oil tanks (600 litres instead of 1,000 litres capacity) with smaller supporting bases; proving a smaller/cheaper 'cabin pack' covering for boilers than the current boiler house; and drilling and draining back boilers rather than removing them.

- the grant maximum for heating or heating and insulation measures under Warm Homes Plus increased from £2,700 (July 2001) to £4,300 from December 2006 – an increase of 59 per cent.

The comparable increase in the Retail Price Index over the period 2001-2006 was 14 per cent.

5.11 In the Warm Homes Scheme, if the heating measures required for a household exceed the grant maximum, the measures will only be provided if top-up funds are available through the NIE Energy Efficiency Levy Fund. There is no customer contribution to the measures received, whereas in England the Warm Front Scheme requires contributions from about 17 per cent of households.

Annual quality assurance reviews have repeatedly identified areas of low standards of provision

5.12 As the scheme manager, Eaga is responsible for the standards of materials, workmanship, service and customer

satisfaction provided by the Scheme. It is required to inspect 5 per cent of insulation installations and 100 per cent of heating installations, and having remedial work carried out where necessary, prior to claiming payment from NIHE.

5.13 In addition to Eaga's quality assurances, NIHE carries out annual assessments and reports on the Scheme's performance²⁹. Its 'quality assurance monitor' reports include, amongst other things, an assessment of the timeliness and quality of completed installations. NIHE quality assurance is completed following Eaga's quality assessment work and the payment of the sub-contractor.

5.14 Timeliness of installations is measured but the figures require interpretation. While NIHE found a high level of compliance with the five working day target for acknowledging receipt of enquiries and applications in recent years, it regularly reported low levels of attainment of the target times for the household energy efficiency survey and completion of the installations (Figure 10).

Figure 10: NIHE's assessment of Eaga's performance against timeliness targets

Timeliness Targets ¹ (from receipt of a referral (an application))	% of Cases Achieving the Target	
	2004-05	2005-06 ²
31 working days to complete the energy efficiency survey and check the householder's eligibility	26%	34%
81 working days to complete an insulation installation	14%	53%
126 working days to complete a heating installation	17%	31%

Note: ¹ These targets applied from September 2004, prior to this the targets were 28 working days to carry out a survey; 40 working days to complete insulation installation; and 90 working days to complete heating installations.

² 2005-06 are the latest available figures.

Source: NIHE

29 The Department approved the NIHE quality assurance plan for the Warm Homes Scheme in February 2002.

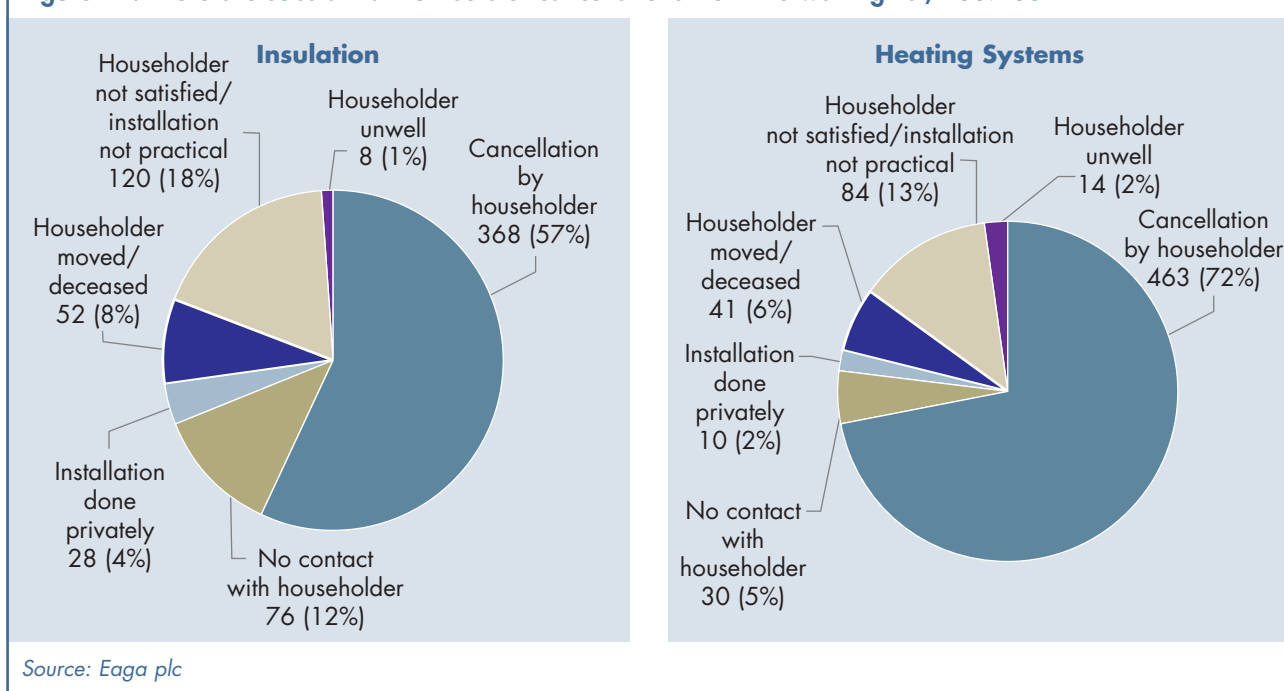
Part Five: Management of the Warm Homes Scheme

However, it noted a range of outside influences affecting this performance, for example, delays awaiting landlord permission and benefit entitlement checks; delays caused by the applicants (clearing lofts or the householder requesting a delay in installation); and, on some occasions, the large volume of applicants resulting from mail shots advertising the Scheme. Eaga stated that the major cause of delays in fitting heating systems had been due to over-subscription of the Warm Homes Plus element of the Scheme. Eaga also informed us that, from September 2006, it was monitoring performance against the timeliness targets more closely, and that in the Warm Front Scheme in England timeliness is assessed from the date of the household survey whereas for the Warm Homes Scheme it is measured from the date of registration.

5.15 Timeliness is a key aspect of service provision, and clearly the length of the waiting list will impact on this:

- at March 2008, Eaga had 6,550 referrals for heating systems (5,807 referrals awaiting household surveys and 743 referrals surveyed and ready to be allocated to sub-contractors)³⁰. The backlog would, at that point, be the equivalent of a two year waiting list for heating systems, given no change in the existing funding. This was despite Eaga not actively promoting Warm Homes Plus in 2007; and
- there are a substantial number of cancellations from the waiting list, some 1,300 in 2007-08 (**Figure 11**). While most of the cancellations are at the client's request, some are due to the delay in commencing the installations.

Figure 11: There are substantial numbers of cancellations from the waiting list, 2007-08



³⁰ Eaga considers that a commitment to provide the Warm Homes Scheme's measures arise when its energy efficiency survey and eligibility checks are complete.

Figure 12: NIHE assessment of the quality of installation of the Scheme's insulation



Note: ¹ 2005-06 are the latest available figures;
² installations requiring minor remedial work are classed as conditional passes.

Source: NIHE

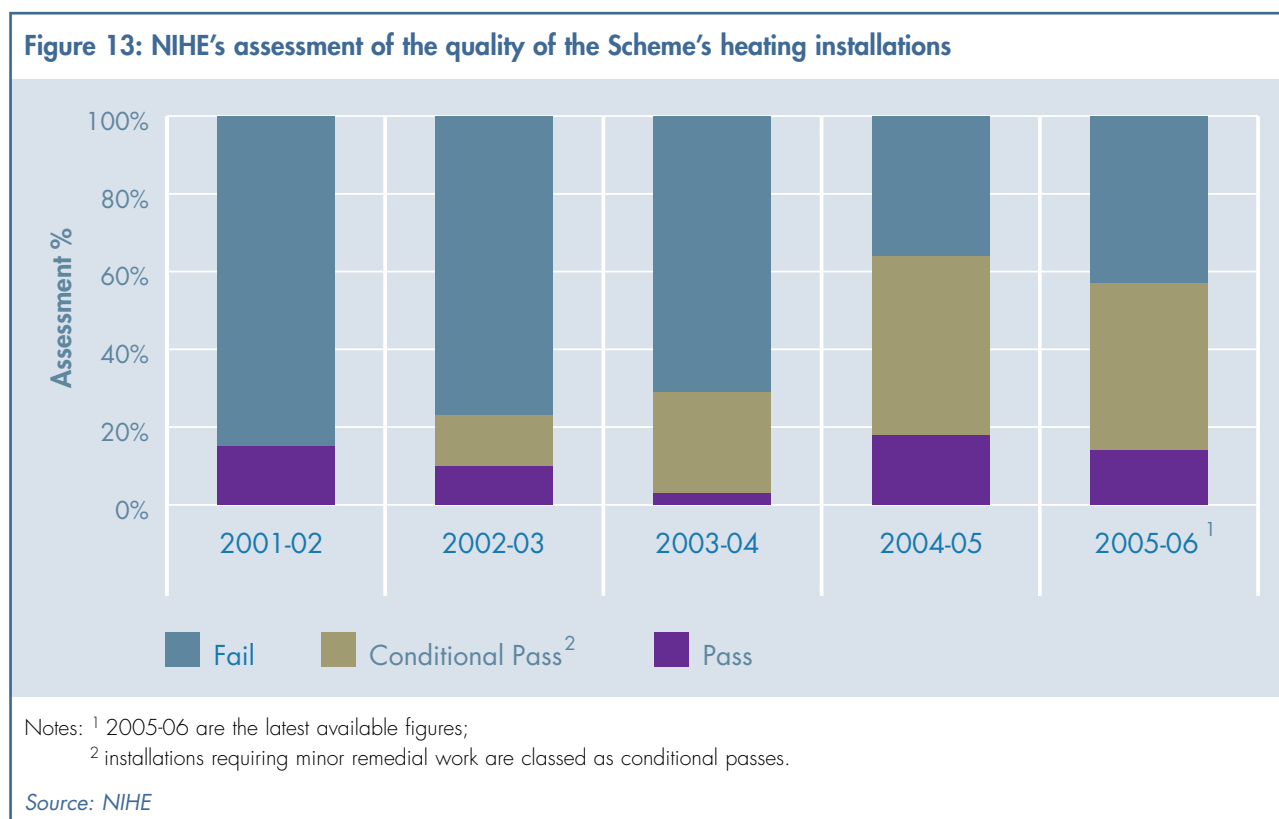
5.16 Quality of insulation installations has improved year on year, with NIHE satisfied that Eaga had met its obligations under the Scheme in almost all cases in 2004-05 and 2005-06 with a pass rate of 85 per cent and 92 per cent of inspected installations respectively (Figure 12). NIHE noted that the majority of problems in the installations it failed replicated defects it had outlined in previous reports, for example, loft insulation incomplete or poorly installed, and draught proofing being omitted.

5.17 Quality of heating installations has been improving over the period of the Scheme (Figure 13). NIHE has repeatedly found low levels of 'pass' and 'conditional pass' cases (the latter requiring minor remedial work), and assuming that the remedial work is

completed it combined the 2 types of passes and reported annual overall 'pass rates' ranging from 15 per cent to 64 per cent. It reported that the marked improvement in performance since 2004-05 was due to excluding cases from the analysis where agreement could not be reached with Eaga over ambiguities in the technical specification.

5.18 NIHE, in its 2005-06 report, noted that the main reason for failing to meet the quality standard was the standard of the mechanical installations and that most defects were similar to those identified and reported on in previous reports. For example, pipework did not meet the required specification, and systems were not commissioned to ensure that they operated

Part Five: Management of the Warm Homes Scheme



correctly. It acknowledged that some defects are of a minor nature, relating to good practice, but others relate to the efficient working of the system or health and safety issues. It has also stated³¹ that "We know that Eaga think that we apply unduly strict standards to our assessment of heating installations but we can only report on what we find and where we feel installations could be improved."

5.19 Eaga informed us that, while NIHE's assessments have helped drive up the quality of installations, it considered that in recent years the deficiencies raised were minor in nature and questioned whether they always fell within the scope of the works specification. It also informed us that it took assurances from the findings of an external consultant it engaged to review the quality

of its heating installations; and that the Department had never approached it on the NIHE findings.

5.20 The Department informed us that the quality of installations was an agenda item at its bi-monthly Warm Homes Scheme progress meetings. However, the complexity of the installation specification, particularly in relation to oil heating system upgrades, had made an agreed approach to quality assurance difficult to achieve and manage. While it noted that quality assurance levels have generally been increasing over the contract period, it has commenced a pilot exercise aimed at providing installers with specific work schedules which it considers should improve the quality assurance process (paragraph 5.9).

31 Covering letter to the Department on its 2004-05 'quality assurance monitor' report.

The Department has extended Eaga's contract

5.21 The Department has on two occasions extended Eaga's term as scheme manager by two years, for the periods July 2004 to June 2006 and July 2006 to 30 June 2008, the maximum allowed under the Contract. The extensions were entered into against the background of the Scheme's insulation and heating installations falling short of the specified standards (paragraphs 5.16 and 5.17). The Department is currently reviewing the Warm Homes Scheme and plans to have a draft scheme document ready by July 2008 (paragraph 2.9) which will be the basis for consultation on a revised scheme. However, the Department told us that procurement of a new scheme manager will commence on the basis of the draft scheme document. As an interim measure, until a new scheme manager is appointed, the Department has entered into short-term arrangement with

Eaga plc to extend its role and responsibility for providing the scheme beyond 30 June 2008.

The Contract provides for the recovery of excess profits

- 5.22 The current contract includes the provision, amongst others, that if Eaga's profits exceed 15 per cent of the contract value, 40 per cent of the excess must be paid to the Department. In order to facilitate monitoring of this condition, Eaga should provide independently audited annual accounts for the Department's scrutiny. The Department has not received these accounts, and it has no way of identifying whether Eaga's profits merit invoking the profit sharing agreement.
- 5.23 The Department informed us that it has now asked Eaga for updated audited accounts and is seeking expert advice to check any entitlement it may have to execute the profit sharing clauses in the contract.

Appendices

Appendix One: (paragraph 1.7)

Comparisons of Fuel Poverty Schemes in the UK				
	Warm Front Scheme England	Home Energy Efficiency Scheme Wales	Warm Deal Scheme Scotland ¹	Warm Homes Scheme Northern Ireland
Grant maximum	£2700 for heating and insulation, or £4000 if oil central heating is recommended.	£2000, or £3600 if disabled or over 60. £5000 for oil heating.	£500, or £125 for over 60s not receiving benefits. Included social housing and council tenants until recently.	£850 for insulation, or £4300 for heating and insulation measures.
Eligibility	Householders aged over 60, or pregnant/ with a child under 16, if receiving one or more of Income Support, Council Tax Benefit, Housing Benefit, Job Seekers Allowances, or Pension Credit. Or householders of any age in receipt of any disability benefit. Any over 60 can apply for a £300 rebate if they have no central heating.	All over 80s qualify for the full £3600. Over 60s and lone parent families qualify for £3600 if they are in receipt of certain benefits. Householders who are pregnant or have a child under 16 and are receiving certain benefits qualify for the £2000 grant. All over 60s can claim a £500 rebate.	Households with disabled children and receiving Disability Living Allowance, and householders aged over 60 and receiving certain benefits, are eligible for a £500 grant. Over 60s who do not receive benefits are eligible for a maximum of £125.	Anyone with a child under 16 in receipt of certain benefits (insulation measures only). Anyone over 60 in receipt of certain benefits (both heating and insulation measures). Anyone in receipt of certain disability related benefits (insulation only).
Measures covered	Heating and/or insulation measures and energy efficient light bulbs up to grant maximum. Solid wall insulation and double glazing are not listed.	Heating and/or insulation measures and energy efficient light bulbs. Also security measures and smoke alarms. No solid wall insulation or double glazing.	Only insulation measures- cavity wall, loft, hot water tank and draught proofing. Also energy efficient light bulbs.	Insulation measures only unless you are over 60, in which case both heating and insulation. Includes reflective radiator panels for homes with solid walls. Also energy efficient light bulbs.

Note: 1 The Warm Deal Scheme is the only scheme that covers public and private housing, the rest cover private housing only; in Scotland there is a separate Central Heating Programme.

Appendix Two: (paragraph 3.23)

A summary of *Transforming Lives: Lessons Learned and Shared 'Home is Where the Heat is' A Rural Fuel Poverty and Health Project, Armagh and Dungannon Health Action Zone, 2002*

The project sought to identify and address some of the issues affecting both individual and community health and quality of life. Its aim was ... *"through a community partnership approach, to develop and deliver an innovative, research-focused and action-based approach to tackling fuel poverty, energy efficiency and health and wellbeing in the rural communities of Armagh and Dungannon"*.

The project consisted of three phases:

- pre-intervention research into the fuel poverty, energy efficiency and health status of householders. In order to target resources³⁰ in areas of greatest need the team:
 - designed a 'Fuel Poverty Index' (consisting of a range of indicators³¹) as a tool to identify 'cool spots', geographical areas where there are high levels of fuel poverty and low income levels
 - developed a community self-selection process to determine the commitment or 'buy-in' within the fuel poor wards identified by the Fuel Poverty Index – this resulted in the work being undertaken in Aughnacloy and Darkley
 - designed a Property and Householders' Survey to, amongst other things, identify those most in need of the measures. Consent to access personal records, including health records and fuel bills, was very high;
- installed a range of energy efficiency measures. It decided, in consultation with the communities, that resources would be prioritised to provide fuel poor households with maximum assistance through 'total solutions' packages, i.e. heating, energy efficiency measures and appliances; and
- measuring the long-term impact of the interventions on health and wellbeing.

Among the achievements claimed by the project were:

- 92 per cent response rate to the Property and Householder Survey – 409 out of 436 households targeted;
- successful targeting the fuel poor, demonstrated by a 100 per cent up-take by those referred for oil-fired heating systems and energy efficiency measures; and
- the project assisted in identifying unmet need – almost 40 per cent of the recipients of heating systems were aged less than 60 years of age which would have deemed them ineligible for heating systems under the Warm Homes Scheme.

30 £300,000 from NIE and the Department for installing heating and other energy efficiency measures. Research funding was provided by NIHE, Southern Health and Social Services Board, the Department and Eaga Partnership (now Eaga plc).

31 Fuel Poverty Index range of indicators - low uptake of grants for domestic energy efficiency improvements; high proportion of owner-occupied/private rented sector housing; low income/high benefits dependency; high relative multiple deprivation indices; high percentage of over 60 year olds and of under 5 year olds; and population density (rural communities).

List of Reports

Title	HC/NIA No.	Date Published
2007		
Internal Fraud in Ordnance Survey of Northern Ireland	HC 187	15 March 2007
The Upgrade of the Belfast to Bangor Railway Line	HC 343	22 March 2007
Absenteeism in Northern Ireland Councils 2005-06	-	30 March 2007
Outpatients: Missed Appointments and Cancelled Clinics	HC 404	19 April 2007
Good Governance – Effective Relationships between Departments and their Arms Length Bodies	HC 469	4 May 2007
Job Evaluation in the Education and Library Boards	NIA 60	29 June 2007
The Exercise by Local Government Auditors of their Functions	-	29 June 2007
Financial Auditing and Reporting: 2003-04 and 2004-05	NIA 66	6 July 2007
Financial Auditing and Reporting: 2005-06	NIA 65	6 July 2007
Northern Ireland's Road Safety Strategy	NIA 1	4 September 2007
Transfer of Surplus Land in the PFI Education Pathfinder Projects	NIA 21/07-08	11 September 2007
Older People and Domiciliary Care	NIA 45/07-08	31 October 2007
2008		
Social Security Benefit Fraud and Error	NIA 73/07-08	23 January 2008
Absenteeism in Northern Ireland Councils 2006-07		30 January 2008
Electronic Service Delivery within NI Government Departments	NIA 97/07-08	5 March 2008
Northern Ireland Tourist Board – Contract to Manage the Trading Activities of Rural Cottage Holidays Limited	NIA 113/07-08	28 March 2008
Hospitality Association of Northern Ireland: A Case Study in Financial Management and the Public Appointment Process	NIA 117/07-08	15 April 2008
Transforming Emergency Care in Northern Ireland	NIA 126/07-08	23 April 2008
Management of Sickness Absence in the Northern Ireland Civil Service	NIA 132/07-08	22 May 2008
The Exercise by Local Government Auditors of their Functions		12 June 2008
Transforming Land Registers: The LandWeb Project	NIA 168/07-08	18 June 2008



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