

WARM ZONES EXTERNAL EVALUATION

FIRST ANNUAL REPORT

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EXECUTIVE SUMMARY

INTRODUCTION

Warm Zones is a major Government-sponsored initiative to systematically address fuel poverty on a local, area basis. Five zones were launched across England in April 2001 to pilot the approach over a three-year period: Stockton, Newham, Sandwell, Northumberland and Hull¹.

The overall aim of the Warm Zone programme is:

“ To facilitate the efficient, integrated and appropriate delivery of practical measures to alleviate fuel poverty and improve domestic energy efficiency in defined areas.”

In addition, two targets have been set for the three-year period:

- to reduce fuel poverty² by 50%; and
- to reduce severe fuel poverty³ by 50% .

The Evaluation

The Energy Saving Trust is managing an independent evaluation of the Warm Zones initiative on behalf of Department for Environment Food and Rural Affairs (Defra) and the Department of Trade and Industry (DTI), conducted by the Centre for Sustainable Energy (CSE) and National Energy Action (NEA). This is the first report the four-year evaluation, covering the period April 2001 to September 2002⁴. The final evaluation report is planned for publication in Autumn 2005.

The four main objectives of the evaluation are as follows:

1. Determine to what extent Warm Zones are achieving what they set out to do.
2. Provide Government and other stakeholders with sufficient information on which to base decisions on the future of the Warm Zones concept.
3. Inform the design of any future zones through the experiences, successes and failures of the five pilot zones.
4. Provide information on the effectiveness of existing schemes in addressing fuel poverty and identify how such schemes might be refined.

The Warm Zones Model

Key to the Warm Zones model is the assessment process in which income and energy efficiency information is collected on a systematic and intensive door-to-door, street-by-street basis to identify fuel poor households. In general, the Warm Zone teams do not install measures but draw on existing programmes and services. By developing key local partnerships and co-ordinating sources of available funding, Warm Zones aim to provide a more comprehensive and effective package of energy efficiency measures than usually provided through schemes operating in isolation. Energy efficiency measures are complemented by the use of ‘soft measures’ such as benefits advice to address problems of low income. Cost efficiencies should be achieved through concentrated and co-ordinated management and delivery of measures. After the three years, it is planned the Zones will become "Comfort Zones" with structures and systems developed by the Warm Zone team handed over to a local organisation to establish the local skills and resources to tackle fuel poverty.

Funding and Structure

The three-year budget for the Zones is £7 million funded from central government, fuel company sponsorship and local authorities. Funding for installed measures is not included and is negotiated

¹ More information on the 5 Zones can be obtained from the Warm Zone website on www.warmzones.co.uk. A sixth Zone, Redcar and Clevedon, was recently established (summer 2002) by Transco in the Teesside area. This evaluation covers the original 5 pilot Zones.

² A fuel poor household is one that needs to spend more than 10% of its income on all fuel use to heat its home to an adequate standard of warmth. The calculation of fuel poverty, as measured by the fuel poverty index (FPI), used for this evaluation includes housing benefit and income support for mortgage interest (ISMI)

³ A household is severely fuel poor if it needs to spend more than 20% of income on fuel.

⁴ All data presented in the report covers the period April 2001 to July 2002, representing just under a year and a half of operations for the Warm Zones.

from five major sources: local authorities, central government programmes, energy companies, the voluntary and community sector, and householders.

Warm Zones Ltd was established as a not-for-profit private company consisting of a Board and supporting central team. Each Zone is led by a Zone Director reporting to the Board. Four of the five Directors are secondees from the sponsoring fuel company. The Director in Newham was originally a secondee from the local authority but is now an independent appointment. Other staff resources are provided through a mix of direct employees and secondments.

Although the Board is the decision making body for Warm Zones, individual Zones are given a large amount of flexibility in recognition of their pilot status and the need to explore the most effective approaches within the core model. The five Zones have adopted a range of approaches. Four variants to the main Warm Zones model are identified: full control (Stockton), facilitation (Sandwell and Northumberland), service management (Hull) and area management (Newham).

EVALUATION RESULTS

Introduction

The first year of the evaluation has concentrated on a number of key indicators to assess the effectiveness of the Warm Zones in meeting overall targets and to determine whether adequate progress is being made in terms of the level of activity, the results achieved and the fuel poverty impact.

Assessment

For Zones to assess all households in their area over the 3-year period at a steady rate, 50% should have been completed after 18 months. In fact Warm Zones have assessed more than **74,000 out of 523,000 households - only 14% of the total task in just under a year and a half**. To reach target, Zones need to triple the assessment rate.

Assessment performance in Sandwell and Stockton is only slightly behind target with 31% and 25% of households assessed in the first year and a half. Sandwell accounts for more than 50% of the total across all Zones but only 11% of assessment information collected there is complete. In the other three zones, only 4-6% of households have been assessed. Hull, Newham and Northumberland have been significantly affected in all areas of activity by delays in start up. To achieve targets, the number of assessments needs to increase between five and eight times.

Fuel Poverty Reduction

Across the five zones, an estimated 113,000 or 22% of households are fuel poor. It is estimated that 2,658 households have been removed from fuel poverty from April 2001 to July 2002, a **2.4% reduction in the total number of fuel poor households against a 3-year target of 50%**. There is considerable variation between the Zones reflecting delays in set up, but all remain some distance from this target. Stockton has achieved a 10.6% reduction compared to less than 1% in each of Hull, Newham and Northumberland. It is estimated that Warm Zones have increased fuel poverty reduction by 33% although the additional impact varies greatly between the five Zones.

The Zones have identified a significant number of fuel poor households for which there is no funding available or where available funding is inadequate to remove them from fuel poverty. Experience suggests that the gap between eligibility for existing programmes and fuel poverty is greater than expected. Early figures indicate that upwards of 38% of households assessed as fuel poor are not eligible for Warm Front within the Warm Zones. The data are not yet complete and the extent to which this is a result of different factors, such as households not claiming benefits for which they are eligible, is not yet known. As such, firm conclusions cannot be drawn from the data at this stage. The integration of existing and new fuel poverty and energy efficiency programmes is a specific objective of the Warm Zones approach. However, for Warm Front and priority EEC, there is considerable overlap in households so opportunities for complementary funding tend to be limited.

Stockton has benefited from generous and flexible funding from British Gas and Stockton Metropolitan Borough Council. Altogether the Zone is responsible for £12.5 million of capital

funding with a high degree of control over the form of programmes. The Zone aims to offer measures to all households assessed as fuel poor alongside all those eligible for Warm Front/EEC priority group.

The Warm Zones are estimated to have had a greater impact on the severity of fuel poverty as measured by the fuel poverty index (FPI). Stockton is on track to achieve its target for reducing severe fuel poverty by 50% if current patterns of activity continue, however other Zones are making less progress against this target. About three quarters of households with work completed remain in fuel poverty due to the limited range of measures available.

Zones are not generally tackling the problem of under-occupancy. For hard to treat housing, where standard measures are not suitable, there are limited developments of solid wall insulation and discussion regarding the possibility of using CHP and renewables. Performance on 'soft' measures is limited and variable with most progress being made with energy and benefits advice. Tariff advice is only offered to clients specifically requesting it and consists of referral to energywatch. Some Zones plan to focus on soft measures if they find that the installation of hard measures alone does not lift a household out of fuel poverty.

Cost Effectiveness

A full assessment of the cost effectiveness of the Warm Zones is not yet available. Integration and coordination of fuel poverty and energy efficiency schemes has the potential to offer a range of benefits to improve cost effectiveness. At present, cost data for the Warm Zones reflect a large amount of the initial set up costs. A cost model is being developed for the next stage of the evaluation taking into account potential for achieving savings through the Warm Zones approach.

Partnerships

Partnership Committees, bringing together representatives from local authorities, fuel companies, social housing managers and other local organisations, are working well and have made valuable contributions to Warm Zone activities but more could be done.

Fuel companies have made significant contributions to the Warm Zones, both financially and in terms of staff resources, however there are concerns that fuel company leadership may limit the potential for Warm Zones to broker EEC funds from different companies and utilise the full range of fuel poverty abatement measures. All but one Zone are drawing down EEC funds only from the sponsoring fuel supplier. Warm Zones are not proactively offering tariff advice – a decision taken by the Board due to the complexity of the task.

Alternative leaders for Zones could come from local authorities or companies without a specific energy efficiency interest. Local authorities already have a critical role to play at both the strategic and operational level. Experience so far has varied between Zones. Warm Zones need to build a close partnership with the local authority in an extended set-up period. Any future Zones should focus on those authorities that have a clear understanding and commitment to combating fuel poverty including financial resources for public and private sector works, ideally to be managed by the Warm Zone.

Effectiveness of the Different Models

Stockton benefits from full control over the assessment process and energy efficiency programmes. As such it is the most effective Zone to date though not yet on track to meet its target. Contributing factors include the following:

- A well organised and committed local authority, able to commit resources towards the programme.
- A generous and flexible EEC contribution from British Gas.
- Strong strategic and operational management.
- Generous sponsorship from Transco.
- A pre-existing relationship between the Director and Stockton MBC.

Sandwell has made some progress particularly in the social housing sector but overall is unlikely to meet its target. The Zone has been constrained by the Council's lack of commitment and capital

for energy efficiency measures and npower's insistence on match funding for all EEC schemes. The lack of control over the assessment process is also a concern.

Northumberland demonstrates the difficulty of implementing a Warm Zone approach in a rural area and of working with multiple local authorities. It is thought that the Warm Zone approach can work in rural areas but requires a greater level of resources, estimated to be in the order of an additional extra 20% of funding.

It is difficult to assess the effectiveness of the approach taken by **Newham** given the delays in the assessment process. The desktop analysis approach deserves further development and could significantly reduce the size and cost of the assessment task for both the existing pilots and any future Zones. Likewise, following the early delays in **Hull**, it is difficult to comment on the approach here but the problems within the City Council are a concern for future effectiveness.

Overall, given the varied progress made across the Warm Zones, it is not possible to make detailed recommendations regarding the appropriate organisation and structure at this point; however, the following provides some early indications of positive and negative elements for the Warm Zone model:

- 1 There are considerable advantages in Zones having a decisive input to the local management of energy efficiency programmes, including those run by Councils (or 'arms-length' management companies).
- 2 There are disadvantages in using contractors as a means of providing 'free' assessments.
- 3 There are significant structural disadvantages in reliance on EEC companies as a means of providing leadership for individual Zones.

CONCLUSIONS

After just under a year and a half of operation, it is not possible to make a recommendation regarding rollout of the pilot. There is a lack of robust data on which to make a full assessment and not all Zones are sufficiently established to be able to evaluate the different approaches being piloted. Nevertheless, from the evidence collected it is possible to identify lessons for the future operation and organisation of Warm Zones.

Key findings

Assessment

- Warm Zones have assessed more than 74,000 households, considerably fewer than required to meet the target to assess all households within three years.
- Assessment rates need to increase significantly following slow starts in Hull, Newham and Northumberland.
- Approximately a quarter of assessments have been achieved in Sandwell, but much of the data is incomplete.
- Validation of the assessment process is needed to allow errors to be managed and improve the effectiveness of delivery.

Impact

- Warm Zones have achieved an estimated 2.4% reduction in fuel poverty compared to a three-year target of 50%. There is considerable variation between the Zones.
- Initial analysis indicates a 33% increase compared to the 'baseline' level of activity without the Warm Zones.
- Zones have been more effective in reducing the severity of fuel poverty.

Barriers

- Delays in set up and implementation of measures.
- Inadequate funding for the installation of energy efficiency measures in most Zones from existing and new funding commitment.

- Lower than expected levels of fuel poverty amongst those eligible for assistance through Warm Front and priority EEC.
- Overlap of Warm Front and EEC target groups.
- Grant maxima within Warm Front and limited use of EEC proving insufficient to fully remove many eligible households from fuel poverty.
- The position of a single fuel company as Zone sponsor may limit the ability of Zones to use the full range of EEC funds.
- Limited operational funds leading to sub-optimal assessment and marketing strategies to reach fuel poor households.
- Inability to gain full commitment of partners or local community.
- Limited provision of soft measures.

Recommendations

Criteria for future Zones

Any future expansion should consider a focus on areas where the lead organisation can:

- Demonstrate the extent of fuel poverty;
- Have access to good data systems;
- Secure sufficient funds to cover core operational costs, provision of welfare rights advice, and third party funds capable of filling the measures and eligibility gaps between existing schemes;
- Establish strong partnerships with the key players, particularly local authorities;
- A common framework and strategy for areas covering a number of local authorities prior to establishment of the Warm Zone.

In the event of an expanded programme, any local authority, consortium or partnership that has carried out the necessary pre-application work should have the opportunity to become a Warm Zone. Guidance should be issued on such work. Options for locating future zones include:

- prioritising areas where there is demonstrably greater than average fuel poverty need, and/or lower than average energy-efficiency of the total housing stock.
- prioritising districts contiguous to existing Zones would take advantage of management economies, and secure developed expertise.

The establishment of a central development fund would help with set-up costs, and other necessary work such as pre-installation remedial work that are currently extremely difficult to fund adequately.

Resource displacement

The Government should consider the potential implications of an expanded Warm Zone programme for resource displacement with respect to non-Warm Zone areas.

Measures

The Zones should make more efforts to address 'hard to treat' properties through drawing down new sources of funding beyond Warm Front and EEC. The Zones should continue to explore potential for leveraging in new sources of funding, particularly regeneration monies, to meet gaps identified through the assessment process.

The Zones should investigate opportunities for offering energy efficient appliances to fuel poor households.

Warm Zones should provide welfare rights advice as part of the basic package of measures offered to households. Provision of debt and financial advice should form a longer term objective.

The Warm Zones should investigate possible arrangements for offering a tailored tariff advice to households with energywatch.

Warm Zone structures

In the event of an expanded Warm Zone programme, an independent review of the role of the Warm Zone Board and central team should be completed.

The Warm Zone pilots, and any future Warm Zones, should explore all EEC options, rather than only those offered by the sponsoring energy company.

Any future Warm Zones should prioritise building a close partnership with the relevant local authority in the early set-up period. In the case of two tier or joint local authority partnerships, this stage should include agreeing common frameworks and objectives.

Warm Zones and local authorities should work in partnership to access regeneration programmes, to maximise the impact of EEC programmes, provide gap funding for fuel poor households not eligible for mainstream programmes and fund energy efficiency measures for hard-to-treat housing.

Engagement with the community

Warm Zones should take note of the detailed comments in the Community Evaluation undertaken and take steps to address the issues raised. Particular attention should be paid to the provision of information, for example feedback to households and voluntary organisations on referrals and general progress in targeted areas.

Zones should allocate resources and work with other regeneration or community initiatives to support community capacity building so that community and voluntary organisations are able to engage effectively with Warm Zones. In the longer term, Zones should set aside a budget for meeting community-defined priorities.

Zones should carry out follow-up surveys with households once measures have been installed to assess the benefits as perceived by the householder and a better coordinated service.

Warm Zone processes

Research should be conducted into validating Warm Zones' fuel poverty assessment procedure. Validation should review available energy rating software so that the software is able to produce accurate required fuel costs for individual properties

Zones should consider the use of an affordable warmth model for social housing. If adopted by social housing partners, such an approach should be integrated with Decent Homes Plans and coordinated with any expanded Warm Zone programme.

Zones should make greater use of assessment data from fuel rich households, if only to pass on to other agencies that could promote schemes for this particular sector. They should ensure that all Data Protection issues are addressed before doing so.

Warm Zones should lever in more regeneration funds than generally has been the case thus far.

Managing agents should continue to work with Warm Zones on improving relations to ensure that they can respond to bulk referrals from Warm Zones and progress work.

The Warm Zone central team should tighten and further standardise reporting procedures to facilitate objective comparison and assessment of Zone impact.

Implications of Warm Zones for mainstream programmes

Warm Zones should be used as a means for undertaking a range of area-delimited experiments to test how current schemes and regulations might be improved to maximise their impact on fuel poverty. The trials would be subject to consultation between the Government, Warm Zones Ltd and scheme managers, energy companies or key stakeholders and proven competence on the part of the Warm Zones concerned. The legal implications of any proposed trials will need to be explored given the legislative basis of Warm Front and EEC.

The trials could take the following forms:

- Give delegated Warm Front management status to individual Warm Zones to facilitate local integration. This will require the development of competence criteria for Zones participating in

experimentation and careful consideration of the elements of Warm Front devolved, e.g. funds, installer management, installer infrastructure development.

- A more flexible eligibility model for both Warm Front and EEC, for example drawing upon the model developed by this evaluation. Eligibility criteria should aim to meet the five principles of validity, reliability, practicability, equitability and outcome-efficiency.
- A mean spend ceiling for Warm Front.
- Widen the menu of permitted energy efficiency measures so that solid wall and under-floor insulation, central heating controls etc are available under appropriate circumstances. This should input to the Energy Efficiency Partnership's matrix of technologies for difficult to treat properties.
- Fund pre-intervention remedial work.
- Embody minimum SAP standards for *all* social housing as part of the Decent Homes Standards in at least some Zones, with funding to match. This should be tailored according to the nature of the housing stock within that Warm Zone.
- Give leadership status to a local authority (with similar funding to existing Zones), to test the potential for Zones to broker EEC deals and proactively offer tariff advice.
- Consider ways in which fuel suppliers can be encouraged to participate more fully in fuel poverty initiatives such as Warm Front and EEC, e.g. extra EEC points for improving low SAP/difficult to treat properties.

The Government should take note of current Warm Zone experience, and use the suggested trials, to inform its review of Warm Front and discussions on the future of EEC and any planned review of the Decent Homes Standard.

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1 INTRODUCTION

Warm Zones is a major Government-sponsored initiative to systematically address fuel poverty on a local, area basis. Five zones were launched across England in April 2001 to pilot the approach over a three-year period: Stockton, Newham, Sandwell, Northumberland and Hull⁵.

The Energy Saving Trust is managing an independent evaluation of the Warm Zones initiative on behalf of Department for Environment Food and Rural Affairs (Defra) and the Department of Trade and Industry (DTI), conducted by the Centre for Sustainable Energy (CSE) and National Energy Action (NEA). The independent evaluation is overseen by a Steering Group chaired by Professor John Chesshire, with representatives from Defra, DTI, and EST.

The independent evaluation started in August 2001 and is due to run for four years. This report is the first of four from the evaluation and covers Warm Zones activities from April 2001 to September 2002⁶, with limited reference to activities to December 2002⁷. Reports will be produced each autumn with a final report due in autumn 2005.

The report presents an assessment of the achievements and difficulties faced by the pilots. It assesses the impact of the Warm Zones on levels of fuel poverty and related factors in the pilot areas. It examines the structures and processes adopted by the pilots in carrying out this task, and associated costs. Recommendations have been in relation to improving the effectiveness of the pilots and to help inform the Government's decision on the future of the Warm Zone programme. The report also examines the main tools available to the Zones for combating fuel poverty and makes a number of recommendations for how these might be improved to increase their effectiveness in tackling fuel poverty.

1.1 The Independent Evaluation

The four main objectives of the evaluation are as follows:

- Determine to what extent Warm Zones are achieving what they set out to do.
- Provide Government and other stakeholders with sufficient information on which to base decisions on the future of the Warm Zones concept.
- Inform the design of any future zones through the experiences, successes and failures of the five pilot zones.
- Provide information on the effectiveness of existing schemes in addressing fuel poverty and identify how such schemes might be refined.

A wide variety of research tools have been employed in the evaluation. These include quantitative assessment of Warm Zones' activities and impacts based on Warm Zones monitoring data, as well as qualitative evaluation of the processes and structures employed in delivery. The results presented here also draw on guidance provided by the Steering Group and also the work of Warm Zones' own internal evaluation team. We would like to take this opportunity to thank the Warm Zones and all stakeholders for their cooperation and contribution to this evaluation.

1.2 The Warm Zone Approach

The overall aim of the Warm Zone programme is:

“ To facilitate the efficient, integrated and appropriate delivery of practical measures to alleviate fuel poverty and improve domestic energy efficiency in defined areas.”

Within this overall aim, the specific objectives for the three years of the programme are as follows:

⁵ More information on the 5 Zones can be obtained from the Warm Zone website on www.warmzones.co.uk. A sixth Zone, Redcar and Cleveland, was recently established (summer 2002) by Transco in the Teesside area. This evaluation covers the original 5 pilot Zones.

⁶ All data presented in the report covers the period April 2001 to July 2002, representing just under a year and a half of operations for the Warm Zones.

⁷ These activities will be covered in more detail in second annual report.

- to determine the extent to which significant marketing and delivery cost-efficiencies can be produced through systematic, intensive area assessments and subsequent area installations using the existing scheme and project management structures available for HEES and other programmes.
- to integrate both existing and new fuel poverty measures for the vulnerable with energy saving and reduced CO2 emission programmes for the more affluent, thus reducing any stigma attached to 'fuel poverty'
- to lever-in new private finance, grant support and self-funding thereby optimising direct Government support
- to create local and national partnerships of all major interested parties and provide a legacy of locally funded, on-going, fuel poverty and energy efficiency teams, new employment and local enterprise
- to provide reliable evidence on which the effectiveness of the pilot programme can be assessed, with a view to national extension.

The Warm Zone central team set overall target for the for the three-year period of the scheme:

- to reduce fuel poverty⁸ by 50%; and
- to reduce severe fuel poverty⁹ by 50% .

Individual Zones are free to set additional targets beyond this. For example, Stockton aims to reduce fuel poverty by no less than 80%.

Key to the Warm Zones model is the assessment process in which income and energy efficiency information is collected on a systematic and intensive door-to-door, street-by-street basis to identify fuel poor households. In general, the Warm Zone teams do not install measures but draw on existing programmes and services. By developing key local partnerships and co-ordinating sources of available funding, Warm Zones aim to provide a more comprehensive and effective package of energy efficiency measures than usually provided through schemes operating in isolation. Energy efficiency measures are complemented by the use of 'soft measures' such as benefits advice to address problems of low income. Cost efficiencies should be achieved through concentrated and co-ordinated management and delivery of measures. After the three years, it is planned the Zones will become "Comfort Zones" with structures and systems developed by the Warm Zone team handed over to a local organisation to establish the local skills and resources to tackle fuel poverty.

The three-year budget for the Zones is £7 million funded from central government, fuel company sponsorship and local authorities. Funding for installed measures is not included and is negotiated from five major sources: local authorities, central government programmes, energy companies, the voluntary and community sector, and householders.

Warm Zone Funders	Fuel company	Local authority
Central team	Powergen	-
Stockton	Transco	Stockton Borough Council
Newham	London Electricity	Newham Borough Council
Sandwell	npower	Sandwell Borough Council
Northumberland	npower (formerly Northern Electric)	Northumberland County Council and 6 2 nd tier Councils
Hull	npower (formerly Yorkshire Electricity)	Kingston upon Hull City Council

⁸ A fuel poor household is one that needs to spend more than 10% of its income on all fuel use to heat its home to an adequate standard of warmth. The calculation of fuel poverty, as measured by the fuel poverty index (FPI), used for this evaluation includes housing benefit and income support for mortgage interest (ISMI)

⁹ A household is severely fuel poor if it needs to spend more than 20% of income on fuel.

2 WARM ZONES PERFORMANCE

This section assesses Warm Zone performance against the headline indicators relating to fuel poverty reduction.

Enormous energy and considerable resources have gone into the Zones, both locally and for the scheme overall. Zones have removed many homes from both moderate and severe fuel poverty, and achieved substantial reductions in required fuel costs. However, the Zones both overall and individually are considerably below the target set for **fuel poverty reduction**.

Key results from the first 18 months are as follows:

- Overall, the Zones removed **only 2.4%** of fuel poor households from fuel poverty against a 3 year target of 50%
- On an individual basis, the level of fuel poverty reduction varies from **0.2%** in Hull to **10.6%** in Stockton.
- Zones have had more success in reducing the extent of fuel poverty. Warm Zones have reduced the **Fuel Poverty Index (FPI)** by **8.6%**. This provides a measure of distance travelled towards reducing % income expenditure on energy costs to less than 10%. For example, reducing the FPI from 18% to 12% may not remove the household from fuel poverty but represents a significant improvement in the status of the household. About three quarters of homes treated by Warm Zones, while improved, have not been removed from fuel poverty altogether.
- Zones have delivered a significant increase in domestic energy efficiency, with a mean **SAP improvement of 7.36**.

The key elements contributing to the underperformance of the Zones are:

- insufficient levels of assessment activity (although there are signs of improvement)
- low take-up rate (improvement is patchy)
- lack of funding to meet the eligibility and measures gaps which have emerged
- underdevelopment of soft measures provision

These are by no means entirely under Warm Zone control and there are further organisational and contextual factors that have a bearing on them as described in other sections.

2.1 Summary of Key Indicators

The following section summarise the results of key indicators of Warm Zones performance between April 2001 and July 2002. At this point it is not possible to give an accurate figure for the number of households removed from fuel poverty. The evaluation of fuel poverty impact is based on the data collected through the assessments conducted by the Warm Zones and monitoring data of the measures installed. The level of fuel poverty before and after the installation of measures can therefore be calculated using fuel poverty software. Separate household surveys have not been conducted in the evaluation.

The actual level of fuel poverty in each Zone will not be known until all households are assessed at the end of the three-year pilot period. Estimates have been made based on the Index of Multiple Deprivation and limited ward level fuel poverty data and are broadly consistent with the findings in the Warm Zones thus far (this is described in Appendix 2).

Delays in feedback from Warm Front managing agents mean that there is no data on the number of energy efficiency measures installed. Managing agents' systems have not been geared up to receive bulk referrals from Zones but there are signs of an improvement and data availability is expected to improve in the near future. To overcome this problem, fuel poverty reduction has been estimated using a sampling method of approved referrals to assess the number of measures expected to be installed, making allowance for the potential drop out of households before completion of work. Soft measures such as welfare rights advice may make an additional

contribution, but are as yet un-quantified. A more accurate assessment will be available at the next stage of the evaluation.

A complete tabulation of results and supporting data are given in Appendix 1, together with a description of procedures used. The row numbers in the tables below and in Appendix 1 correspond so that method of derivation can easily be located. (Note: Hull had been in full operation for slightly less than 6 months when the data snapshot was taken.)

2.2 Assessment activity in Warm Zones

Table 2-1 presents a summary analysis of Warm Zone assessment activity to July 2002. Assessment is key to all Warm Zone activities since it is the process that triggers referral for measures. Zones intend to assess all households over the 3-year period. Warm Zones have undertaken more than **74,000 assessments** out of a total task of 523,000 properties in the 5 Zones. This represents **14% of the task completed** over the first half of three years. If all households are to be assessed over three years it can be assumed that 50% should be completed by this point. Assessment activity therefore needs to increase by a factor of more than 3 for activity to be on target at this stage. All Zones are making insufficient progress at this point, which will obviously compromise performance on all the other outputs.

Table 2-1: Assessment activity April 2001 to July 2002

Row	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
10	Households to be assessed	108,000	91,000	130,000	118,000	76,000	523,000
11	Assessments completed	4,489	5,770	8,015	37,094	18,860	74,228
12	% Assessment task completed	4%	6%	6%	31%	25%	14%
13	Acceleration needed to meet target	12	8	8	1.6	2	3.5

Hull is dramatically behind target but had a very late start due to the npower takeover of Yorkshire Electricity in 2001.

Newham put much effort in the first year into developing a desktop assessment model (discussed further in other sections). The aim of this model is to considerably reduce the size of the total assessment task since it will eliminate many thousands of homes where fuel poverty could not exist, given the current household and property type (i.e. the "Affordable Warmth" situation). This took longer than expected to complete and has so far had relatively little direct impact on targeting fuel poor homes. Street by street assessments were undertaken in the first year but started later hence the lower number. Useful though the model may be in the future, it is no substitute for contact with households leading to referrals for work.

Northumberland has recently trialed a new postal DIY assessment form with fairly encouraging results. Although the response rate is well below 20%, it could enable an increase in assessment rate without expanding the street assessment team in rural areas. Turnover of assessors has been a problem in some areas, as has travelling time in Northumberland.

The Sandwell figures represent an enormous burst of activity in the recent period. But it is evident that Hull, Newham and Northumberland need to expand their assessment activity further.

2.3 Fuel Poverty and Energy Efficiency Impact

Table 2-2 shows performance against the headline indicators for **fuel poverty reduction** and **energy efficiency improvements**. Fuel poverty reduction is the key impact expected from the Warm Zones, however energy efficiency is the main means by which a fuel poverty reduction is being delivered. It also provides a comparator against other fuel poverty programmes for which impact is measured in terms of fuel poverty reduction. The following should be noted when reading the table:

- **FPI** is the Fuel Poverty Index; the % of disposable income the household needs to spend on fuel (the **required fuel cost**) to attain the Standard Heating Regime, as calculated by energy-rating software.
- **Fuel Poverty** (FP) is said to occur when the FPI >10%.
- **Severe Fuel Poverty** occurs when the FPI >20%. The figures for households taken out of severe FP are a subset of the total households taken out of FP ie they have been taken from an FPI >20% to FPI <10%.
- Row 47 shows **% progress towards FP target**. The target is to remove 50% of households from FP. These figures are the number of households removed from fuel poverty as a % of the total number of FP households. It is not the % progress towards the target.
- **Acceleration** is the factor by which progress would have to be multiplied to achieve the target.
- **Notional Fuel Saved** is the value of the fuel saved. This assumes households were previously spending enough on fuel to heat their homes to the standard heating regime. After the installation of energy efficiency measures households would be expected to spend less on fuel. In row 49, the fuel saved following the installation of energy efficiency measures in both FP and non FP households is calculated, as Warm Zones will identify households eligible for assistance in both categories and both will be referred.
- **SAP¹⁰ points of improvement** are the sum of the individual household SAP rating increases.
- Rows 52-4 refer to the **distance travelled measure**. A household may see its FPI improve from an FPI of eg 19 to 12 and although still in fuel poverty will have benefited from a reduction in the level of fuel poverty. **Total FPI points** are simply the sum of individual household FPI improvements (row 52) and an estimate of the total needed (row 53) if the improvement was perfectly allocated. Improvements in FPI for households not in fuel poverty are NOT taken into account on the total FPI points measure.

Table 2-2: Fuel poverty and energy efficiency impacts April 2001 to July 2002

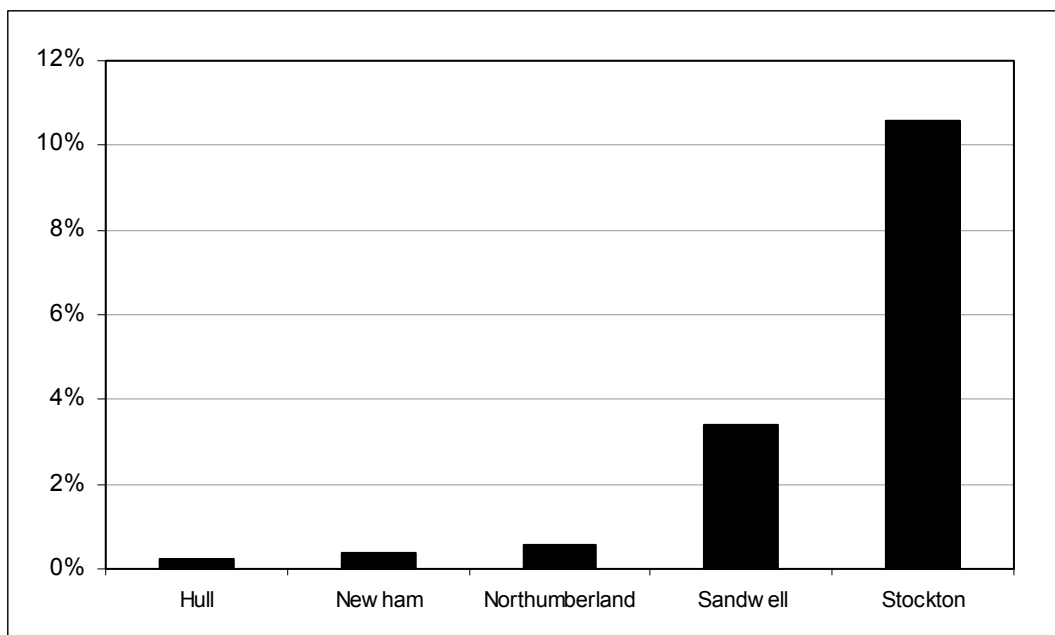
Row	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
43	Households taken out of FP	61	98	116	891	1,492	2,658
44	Households taken out of severe FP	20	16	0	407	194	588
47	% removed from FP	0.2%	0.4%	0.6%	3.4%	10.6%	2.4%
48	Acceleration to reach FP target	105	68	44	7	2	11
49	Notional fuel saved per annum (FP and non-FP)	£48,716	£46,035	£69,327	£739,648	£654,193	£1,557,918
51	Total increase in SAP points (FP and non-FP)	4,651	4,259	6,385	71,232	68,055	154,583
52	Total improvement in FPI points (FP only)	605	742	466	10,815	11,735	24,363
53	Improvement in FPI points required to reach FP target	68,400	63,417	35,357	82,990	34,517	284,681
54	% progress towards target improvement in FPI points	0.9%	1.2%	1.3%	13.0%	34.0%	8.6%

2.3.1 Removing Households from Fuel Poverty

Warm Zones have taken over 2,600 households out of fuel poverty so far. However, *Figure 2-1* below shows that none of the pilots are on target for reducing the number of households in fuel poverty by 50% over three years.

¹⁰ The Standard Assessment Procedure (SAP) is the Government's recommended system for energy rating of dwellings

Figure 2-1: % Households removed from fuel poverty April 2001 to July 2002



Stockton has taken 10.6% of FP homes out of fuel poverty as opposed to a 25% reduction in fuel poverty that would be needed at this point if the Zone were on target to achieve a 50% reduction over three years. The Zone needs to more than double its impact to get back on target. To reach its own target to reduce fuel poverty by 80% an acceleration of more than 4 is required. Soft measures such as energy advice and welfare rights advice may make a small further contribution, but are as yet un-quantified.

Sandwell has achieved 6.8% of the target. Sandwell benefited from securing Warm Front funding for social housing before the cut-off for Warm Front works in this sector during 2002¹¹. However, Sandwell's performance is significantly lower than Stockton despite this activity and the high number of assessments in the first 18 months. Like other Zones, Sandwell has had little success in being able to help those not eligible for existing programmes through integrating existing or new funding streams. Many households assessed as fuel poor therefore remain without a means to fund the installation of measures. Without the benefits of Sandwell's high assessment rate, the three remaining Zones performance in terms of fuel poverty reduction is even worse.

A further contributing factor may be the share of social and private sector households within the Zones. Hard data is lacking, but there are indications that Newham and Sandwell may have concentrated more in the social rented sector, whereas Hull for example has concentrated on the private sector. This has implications for funding availability and take up rates and will be examined in more detail at a later stage of the evaluation.

2.3.2 Reducing the Depth of Fuel Poverty

The Warm Zones are estimated to have had a greater impact on the severity of fuel poverty as measured by the fuel poverty index (FPI). To remove 50% of households from fuel poverty, Warm Zones need to achieve a total reduction of 284,681 FPI points across the 112,779 households estimated to be in fuel poverty (Table 2-2 row 53). Warm Zones have only achieved 8.6% of this target. It is estimated that about three quarters of households with work completed remain in fuel poverty due to the limited range of measures available. In Stockton, which has integrated a number of funding sources and aims to install all possible measures in each household, 60% of households remain in fuel poverty after work is completed. Some households with an initial FPI only just above 10% have received energy efficiency measures sufficient to take their FPI some way below 10%, helping to reduce future fuel poverty risk and improving the energy efficiency of the housing stock.

¹¹ EAGA stopped carrying out surveys in social housing in February 2002, although it is still installing heating systems resulting from these surveys.

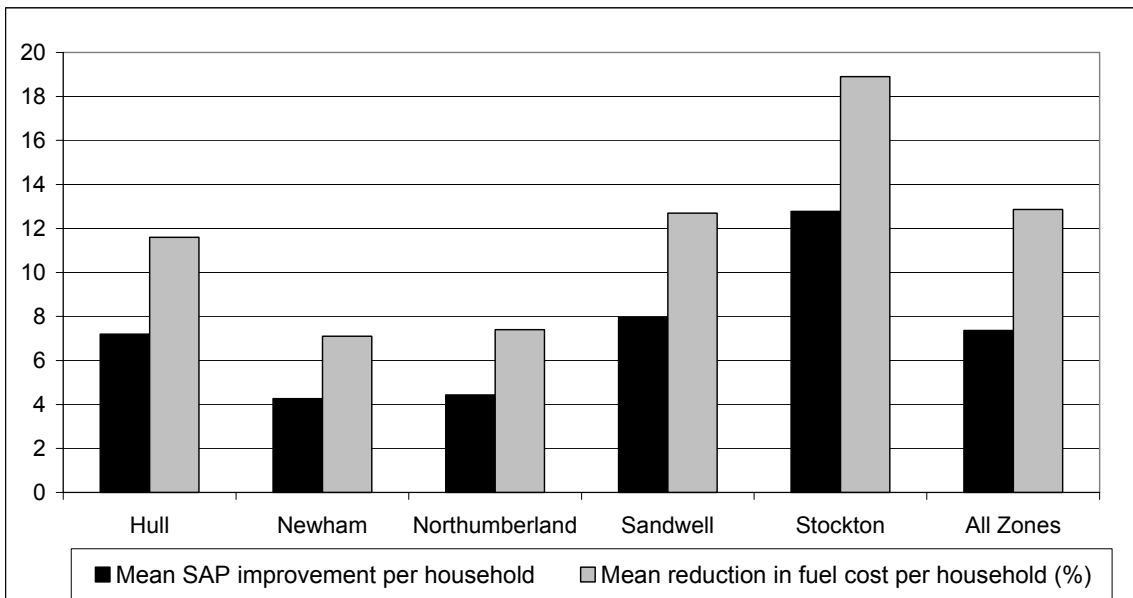
Stockton is on track to achieve its targets of reducing **severe fuel poverty** (FPI>20%), if current patterns of activity continue. However, other Zones are only managing to take about a third of assisted homes in severe fuel poverty out of this category. Even in Stockton, a third of severe fuel poor homes remain in this category. Indications are that these are often homes of particularly low SAP rating, with electric heating and/or solid walls. More radical measures are often needed to take low income households in such properties, particularly if under-occupancy is an associated factor.

2.3.3 Energy Efficiency Improvement

Substantial improvements in energy efficiency have been achieved across all the Warm Zones. The mean SAP improvement per home assisted is 7.36, varying from 4.3 in Newham to 12.8 in Stockton. Estimated annual fuel cost savings across the five Zones total more than £1.5 million in more than 17,000 households across all five zones.

Figure 2-2 illustrates the improvement in energy efficiency for homes that have received measures through Warm Zones. The results clearly illustrate Stockton's ability to access measures gap funding.

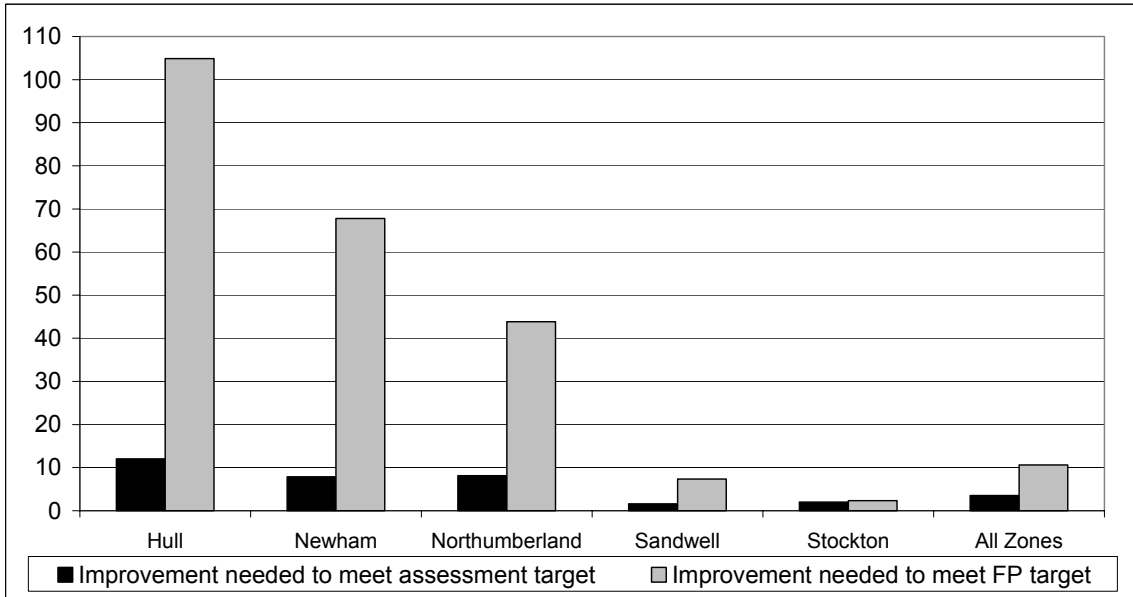
Figure 2-2: Energy efficiency improvement April 2001 to July 2002



2.3.4 Acceleration Required to Meet Targets

While much has been achieved in the Zones, the general picture is one of underperformance in relation to the stated targets. Some reasons have been given above, the longer than expected start-up period (especially for Hull) has been a further factor. These points are explored in later sections, but a simple measure of acceleration required to meet targets is given here. In Figure 2-3, the y-axis represents the multiplying factor. For example, both Hull would need to carry out assessments at about 12 times the current rate.

Figure 2-3: Acceleration required to meet targets for fuel poverty reduction and assessments



These measures may overstate the problem since Zones have accelerated activity during the first half of the scheme. Some improvements in assessments/day, take-up rates, and delivery of EEC schemes are now seen. However, a significant task remains for most Zones.

The difference between acceleration needed on assessments and on fuel poverty reduction is significant. It is very small in Stockton where eligibility and measures gaps have been funded to a large extent. Conversely, Newham, which relies heavily on EEC funded schemes shows a large difference. The results indicate that much of the fuel poverty elimination will have occurred in the more marginal fuel poor cases.

As explained further in the remainder of the report, the **necessary conditions for success** include:

- An assessment mechanism that stays on target through sound management and adequate funding.
- A high take-up rate. Stockton's take-up rate is high at about 75% and Sandwell's 60%. However, the others are considerably lower. This is facilitated through comprehensive marketing, repeat calls at key times of day, contact with community groups.
- The ability to fund both the eligibility and measures gaps
- Since even the most comprehensive energy efficiency measures will not eliminate ALL fuel poverty, the residual distance to be travelled on the FPI needs to be taken up with soft measures, which still remain underdeveloped in all Zones.

Unfortunately, these conditions are not met across all the Zones, explaining underperformance against target. It might be argued that all these difficulties mean that the 50% fuel poverty reduction target is unrealistic, without changes to the scope or eligibility criteria of existing schemes. However Stockton, while having the capability to provide funding to fill both the eligibility and the measures gaps, still has scope for further development on these key conditions and is not far off target. Development of intervention on measures for hard to treat homes, currently being piloted, will help further.

3 THE NON-WARM ZONE WORLD

In comparison with trends extrapolated from national fuel poverty estimates, it is estimated that the **impact of Warm Zones on fuel poverty is running at about 1.33 times the baseline rate of fuel poverty reduction**, although rather less when compared with results from Comparison Zones. This varies from 2.5 times higher in Stockton, to a marginal addition in Hull, Northumberland and Newham. Sandwell lies in between reflecting the sheer level of assessment activity carried out.

3.1 Introduction

A central hypothesis for the Warm Zones is that improvement in key impacts, such as fuel poverty reduction and SAP increase over time, is significantly faster in Warm Zones than outside them. This is clearly important if the elimination of fuel poverty is to be achieved within the time horizon established by the Government's UK Fuel Poverty Strategy.

To test this, the approach of the evaluation takes two forms¹²:

- comparison with national trends
- fuel poverty studies in 'comparison zones'.

3.2 National trends in fuel poverty

There are difficulties in calculating national trends in that the last independent national survey was the 1996 English House Condition Survey (EHCS). A limited follow up survey was conducted in 1998 and additional modelling was undertaken for 1999 and 2000. Data from the new rolling annual survey is only now starting to be available.

Table 3-1: % households in Fuel Poverty (from ECHS and subsequent estimates)

	1991	1996	1998	1999	2000
FP(h)	28.2	21.8	16.4	15.8	14.3
FP(b)	34.5	26.7	22.3	21.4	19.9

b=basic income h=income includes housing subsidy

Table 3-1 shows that the EHCS figures indicate a "natural baseline rate" for the reduction in fuel poverty of 4.7%. There are many factors that, because of their uncertain effect in combination might lead one to question the validity of extrapolating from these trends beyond 2000:

- the declining rate (until recently) of new central heating installation
- the time-limited effects of energy market liberalisation, first for gas then for electricity
- fluctuating fuel prices in general (see below)
- falling unemployment rates over the whole period
- increasing numbers of retired people over the whole period, and the "pensions crisis"
- introduction of SoP3 for gas
- the expansion of Warm Front relative to its predecessor
- the recent expansion of the private rented sector noted, outside London, for its low energy efficiency.

The overall expectation is that while fuel poverty will almost certainly have decreased over the periods in question, the real reduction at national levels may be less than that predicted in the published figures. However, data at the local level from fuel poverty studies in 'comparison zones'

¹² In addition, an 'inference model' was constructed in mid 2002 to provide a means for analysis in the face of an absence of operational impact data. This compared expected outcomes based on inferences made from the level of referrals made with expected levels of Warm Front and SoP3/EEC activity based on national figures, scaled to the population to predict the level of fuel poverty in the pilot Zones. The analysis of results in Section 2 supersedes the inference model, but its conclusions add further strength to those reached here, namely that overall achievement is running at something over twice the baseline rates in Zones overall, with about 5 times in Stockton and about 2.5 times in Sandwell

for 2001-2 indicates a much higher rate of reduction than national levels (see below Section 3.3). These figures will be revisited once further results from the EHCS and the comparison zones are available.

3.3 Comparison Zone (CZ) studies

The second approach is to carry out fuel poverty studies in comparative areas. The use of comparison zones has the advantage of permitting the monitoring of change in household circumstances and fuel poverty levels over a longer time frame. The assumption in the use of Warm Zone operational data is that, once taken out of fuel poverty the household or future households at the same address remain so. In fact, this is only true on an Affordable Warmth Model of intervention, described in 9.1.4.

Three CZs were selected for this study: Carlisle, Nottingham and Tameside based on selection criteria similar to those used for the original selection of the 5 pilots – higher level of deprivation, developed interest in fuel poverty work etc. Data on parameters such as the level of fuel poverty, interventions, scheme eligibility as well as more subjective measures such as self reported health, energy awareness and heating satisfaction have been collected from the comparison zones (Appendix 4 gives more precise details of the research instrument used). Fieldwork was completed in August in Nottingham and Carlisle. The response rate was unacceptably low in Tameside and fieldwork was therefore curtailed.

Many of the items also feature in a client follow up (CFU) survey developed for use in Warm Zones to assess client experience of the Warm Zone process but not so far adopted. It is hoped that further comparison will in time be possible on this basis of the experience and impact of intervention in both Warm Zones and non-Warm Zone areas.

3.4 Change in Fuel Poverty levels in Comparison Zones

Headline figures on fuel poverty change are shown in the figures below. *Figure 3-1* shows a significant improvement in mean FPI in the sample from comparison zones (total: 850 households). A reduction of 1-2 FPI points is observed over the one-year period depending on the definition of fuel poverty applied.

Figure 3-2 shows that the rate of change in fuel poverty is much higher than expected by extrapolating the Defra/DTI data. An 11% reduction (confidence limits are approx +/-3) in fuel poverty was observed in the CZs (fuel poverty here is measured as the % households in fuel poverty). This is more than twice the rate given by EHCS data.

However, fuel costs, particularly for electricity, showed little increase and many state benefits and earnings increased over the 12 months. In addition, comparison Zones are not typical and more than average amounts of fuel poverty work would be expected in them, as in the Warm Zones even without an established Warm Zone. Further work will be done on the underlying factors in due course. Unfortunately, because of the lack of Warm Zone follow-up, there is no way of assessing directly how far these “natural” factors may also have been operating in Warm Zones.

Figure 3-1: % change in fuel poverty status in CZs 2001-2

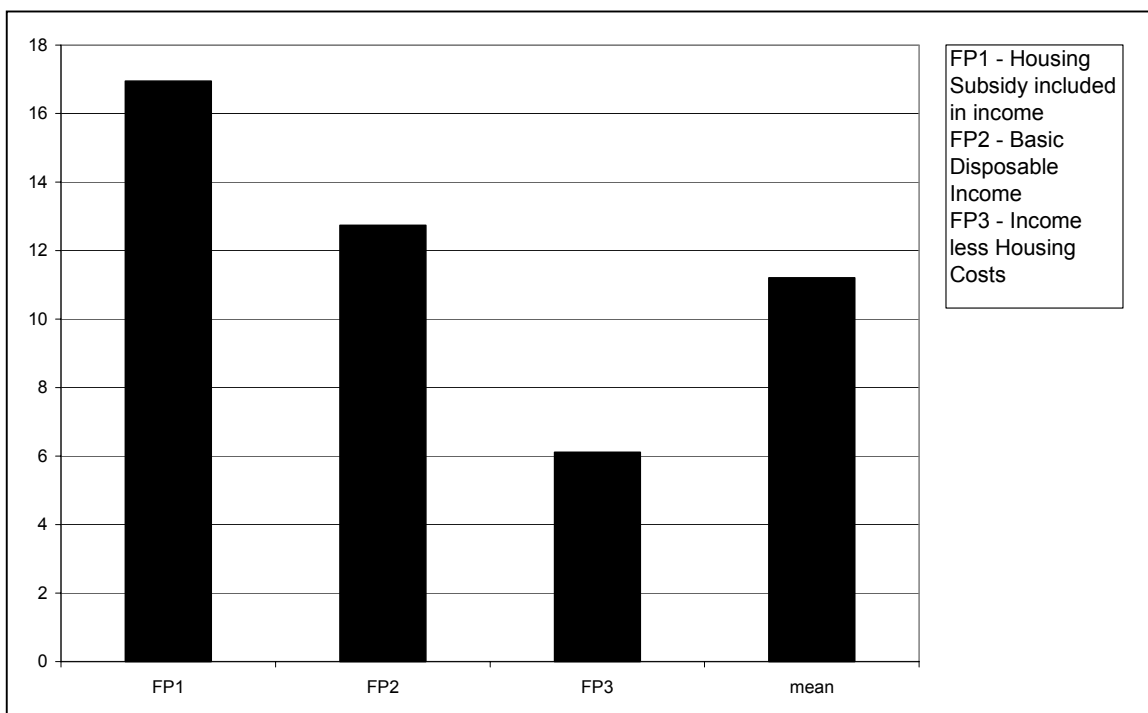
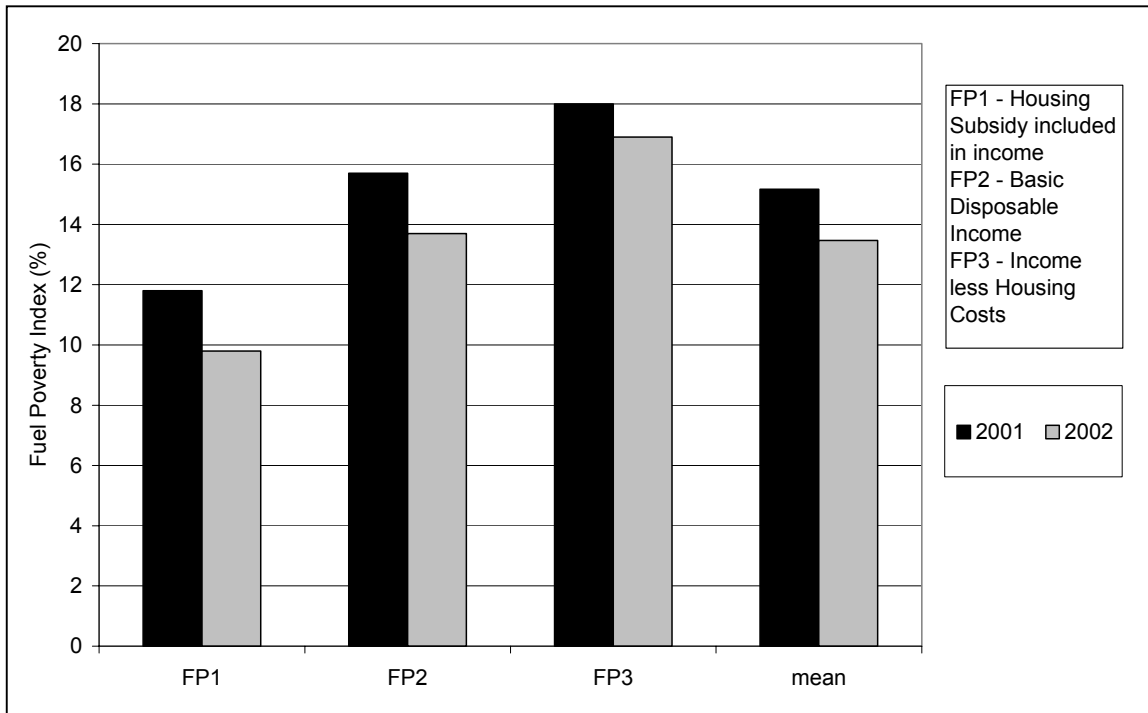


Figure 3-2: % change in proportion of households in fuel poverty in CZs (rate of change) 2001-2

3.5 Additionality

Table 3-2 below summarises the first estimate of the additionality of Warm Zones activity across the Warm Zones as a whole using the annual estimate derived from the EHCS data. Because Warm Zone activity covers only a half of households at most, and much less in some Zones such as Hull, it could be assumed that a significant level of the baseline activity still occurs with the Warm Zones at this point.

Table 3-2: WZ activity in relation to “natural” rates of FP reduction

Col	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
43	Households taken out of FP through the Warm Zones initiative	61	98	116	891	1,492	2,658
45	"Natural" no. households removed from FP	1,795	1,879	1,440	1,842	995	7,951
45a	Total no. households removed from FP in Warm Zones (1)	1,855	1,977	1,557	2,733	2,487	10,609
46	Ratio total to households taken out through Warm Zones	1.03	1.1	1.1	1.5	2.5	1.33

(1) Assumes that within the Warm Zone area some work is done directly through the Warm Zones process *in addition* to the “natural rate” of FP reduction.

The analysis indicates Warm Zones have accelerated progress in fuel poverty reduction within their area by a factor of approximately 1.33. In Stockton, the rate of fuel poverty reduction is more than two and a half times the baseline rate. However, in Hull, Newham and Northumberland the additional progress is fairly marginal showing limited additionality thus far. Further analysis of the baseline reduction will be conducted throughout the evaluation as more data is provided from the comparison zones and future results from the EHCS are made available.

4 COSTS AND COST EFFECTIVENESS

A stated objective of Warm Zones is to realise significant marketing and delivery cost-efficiencies compared to existing schemes. Integration and coordination of fuel poverty and energy efficiency schemes has the potential to offer a range of benefits to improve cost effectiveness. A full assessment of the cost effectiveness of the Warm Zones is not yet available. At present, cost data for the Warm Zones reflect a large amount of the initial set up costs. Cost information is available only where money is expended directly through Warm Zones. A cost model is being developed for the next stage of the evaluation taking into account potential for achieving savings through the Warm Zones approach. Potential cost savings are likely to accrue to other organisations and have not yet been assessed. A limited assessment of the costs incurred thus far has been undertaken.

The mean cost of taking households out of fuel poverty in the Zones is estimated to be around **£1500**, including the estimated cost of energy efficiency work.

Even at best, Warm Zone **on-costs account for 21%** of this figure. It is unlikely and remains to be seen if Warm Zones could recover their assessment and overhead costs through savings realised through greater efficiency of delivery. Overall cost effectiveness could be realised through improved inclusiveness and flexibility within energy efficiency schemes and would mean only an increment of work is required to bring those remaining in marginal fuel poverty out of it altogether. It is thought that better coordination of schemes and measures delivery could potentially offset on-costs by **5%**.

Warm Zones provide considerable **added value** for these on-costs. These include strategic information, the potential to deliver a more comprehensive package through integration, and the outreach work through marketing, community liaison and doorstep contact. All of which should lead to greater effectiveness in terms of reaching and assisting more fuel poor households than current delivery mechanisms.

There are **considerable variations between Zones** in performance based on the **output:cost ratios**. It is likely that much (but not all) of the variation can be explained by the level of funding available to Zones for their immediate operations.

4.1 Introduction

It is important to know how much Warm Zones outputs cost. A stated objective of Warm Zones is to realise significant marketing and delivery cost-efficiencies compared to existing schemes. This section presents results on the costs per various units of output.

4.2 Warm Zones outputs

Warm Zone outputs include the delivery of a range of hard and soft interventions designed to increase energy efficiency and reduce fuel poverty. Strictly, only those outputs above a baseline of activity “which would have happened anyway” should be ascribed to Warm Zones. There are three key additionalities expected from the Warm Zones approach:

4.2.1 Information

There is a national fuel poverty strategy and arrangements are in place for continuous monitoring of national fuel poverty through the EHCS. However, this data is not sufficiently fine-tuned to trigger action at a local level. Detailed local knowledge about the dimensions of fuel poverty need and current rates of progress are only available so far from Warm Zones and can be regarded as a major additional output.

4.2.2 Wastage and effectiveness

Brokerage and the possibility of scheme integration within the Warm Zones offer further opportunities for added value. In theory, it should be possible to:

- increase the probability that clients receive a package sufficient to release them from fuel poverty, in a way which existing schemes acting individually rarely do (see Section 10)

- increase the probability that help will go where most needed (although the ability of Warm Zones to target is limited by the rules of constituent schemes)

This has two major implications for costs. First, co-ordinating different funding schemes and activities, in effect casework management, cannot be done for nothing. Second, since the marginal cost of fuel poverty reduction tends to rise with each increment of that reduction (given that the easier, more cost-effective tasks tend to be done first). This effect is compounded by the fact that the marginal return in £/year reduction in fuel costs per incremental SAP point decelerates at the same time as illustrated in Table 4-1.

Table 4-1% fuel cost reduction under a range of 10-point SAP improvement scenarios

SAP change	Floor area (m ²)						
	40 m ²		through			240 m ²	
10 to 20	20.8%	21.6%	22.1%	22.4%	22.7%	23.0%	23.2%
20 to 30	16.7%	17.6%	18.1%	18.4%	18.8%	19.1%	19.4%
30 to 40	14.2%	14.9%	15.4%	15.8%	16.2%	16.5%	16.8%
40 to 50	12.2%	12.9%	13.6%	13.9%	14.3%	14.7%	15.0%
50 to 60	10.0%	10.8%	11.4%	11.8%	12.2%	12.6%	12.9%
60 to 70	10.0%	11.0%	11.7%	12.2%	12.9%	13.2%	13.6%

Figures derived from the NHER cost table

On the other hand, while funds directed at non-fuel poor households by “badly-targeted” schemes might be regarded as “wastage” in the short run, they obviously have social returns in relation to energy savings. Also, they may be considered in the longer term as *preventative fuel poverty work* in relation to changing household circumstances or “churn”.

4.2.3 Reaching less accessible clients

Assessment per household is thought to cost between £15 and £25, a relatively small amount. Of course, several households require assessment for each one identified as fuel poor, but the value of the information and the opportunity to offer measures (via EEC) to the fuel-richer could mitigate this.

In other non-Warm Zone areas only the most accessible clients are reached. These include people who respond to advertising material and who are probably more educated and/or more participative active citizens in other ways. The exceptions to this are the relatively small-scale referral schemes¹³ that target households thought to be vulnerable.

Under Warm Zones, efforts are made to individually contact all households. Not surprisingly, take up rates tend to be significantly better. Going further, models of fuel poverty action involving community mobilisation at the grassroots such as in the Armagh-Dungannon Health Action Zone (HAZ) can do better still under the right circumstances. Thus each increment of activity involves additional cost but with the reward of greater client take up.

4.3 Cost results

At this stage, activity reporting focuses on the cost ratios that are based on costs expended directly through Warm Zones. The evaluation has not yet assessed where cost savings are accruing to other organisations. A cost model is being developed for the next stage of the evaluation with consideration to these issues and the availability of relevant data.

4.3.1 Cost Ratios

In Table 4-2 headline Warm Zones costs¹⁴ for the period July 01 to June 02 are applied to the impact data outlined in the results analysis (see Appendix 1)¹⁵. This gives a simple ratio of total

¹³ For example, npower’s ‘Health through Warmth’ scheme or Luton Council’s one-stop referral system.

¹⁴ These exclude the £25,000 notional contribution to Central for technical reasons. Data from WZ Finance.

costs per output rather than the absolute cost of any one output. Definitions of key terms used are given in Section 2.3.

Table 4-2: Warm Zone Cost Ratios

Row	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
55	% of total work in progress/jobs done	4%	6%	8%	52%	31%	100%
56	WZ costs over first year	£117,751	£299,311	£240,505	£737,556	£463,539	£1,858,662
57	WZ spend per household in Zone	£1.09	£3.29	£1.85	£6.25	£6.10	£3.55
57a	WZ spend per FP household in Zone	£4.63	£11.23	£11.77	£28.23	£32.84	£16.48
58	WZ cost per intervention (row 22)	£182	£300	£167	£82	£87	£107
59	WZ cost per household taken out of FP	£1,941	£3,046	£2,066	£828	£311	£699
60	WZ cost per (59) + household from severe FP	£1,464	£2,630	£2,059	£568	£275	£573
61	WZ cost per FPI point travelled (FP households)	£195	£403	£516	£68	£40	£76
62	WZ cost per SAP point improvement	£25.32	£70.27	£37.67	£10.35	£6.81	£12.02
63	WZ cost per £1 fuel saved p.a.	£2.42	£6.50	£3.47	£1.00	£0.71	£1.19
64	WZ cost per Warm Front referral	£127.57	£898.83	£116.81	£63.58	£131.02	£100.73
65	WZ cost per assessment	£26.23	£51.87	£30.01	£19.88	£24.58	£25.04
66	WZ cost per completed assessment	£29.80	£64.84	£47.81	£175.57	£27.45	£53.59
67	Assumed approximate mean gross cost/EE job	£658	£379	£399	£729	£1,166	£813
68	Estimated total cost per household taken out of FP including installed cost of measures	£2,599	£3,425	£2,465	£1,557	£1,477	£1,512
69	WZ cost/household from FP as % of total	74.7%	88.9%	83.8%	53.2%	21.0%	46.2%
70	Estimated total cost /intervention	£840	£679	£566	£811	£1,253	£920
71	Estimated total cost /FPI point travelled	£686	£760	£1,381	£487	£412	£450
72	Estimated total cost /SAP point improved	£117	£159	£128	£102	£98	£122
73	Estimated total cost /£ fuel saved p.a.	£11.1	£14.7	£11.8	£9.8	£10.2	£10.3

The figures for £ per fuel poor household in the Zone (row 57a) shows that Sandwell and Stockton are significantly more **generously funded** in relation to need than the other Zones although Hull's figure is low partly because of late start-up. Higher levels of funding in Stockton and Sandwell probably have a bearing on the Zones' success as assessment engines. It also enables a more comprehensive marketing and community liaison programme than Hull and Northumberland in particular. Newham is at the mid point in terms of funding per household in the Zone (row 57), but at the same relatively low level as Hull and Northumberland in terms of funding per household in fuel poverty, at only a third the level for Sandwell and Stockton. *Figure 4-1* and *Figure 4-2* below illustrate this further.

¹⁵ The comparison of costs to outputs is based on limited data available at this point. Cost data is available for July 2001 to July 2002. Assessment and impact data covers the period April 2001 to July 2002. An improved evaluation of cost effectiveness will be presented in the next stage of the evaluation.

Figure 4-1: % share of total Warm Zone expenditure by Zone

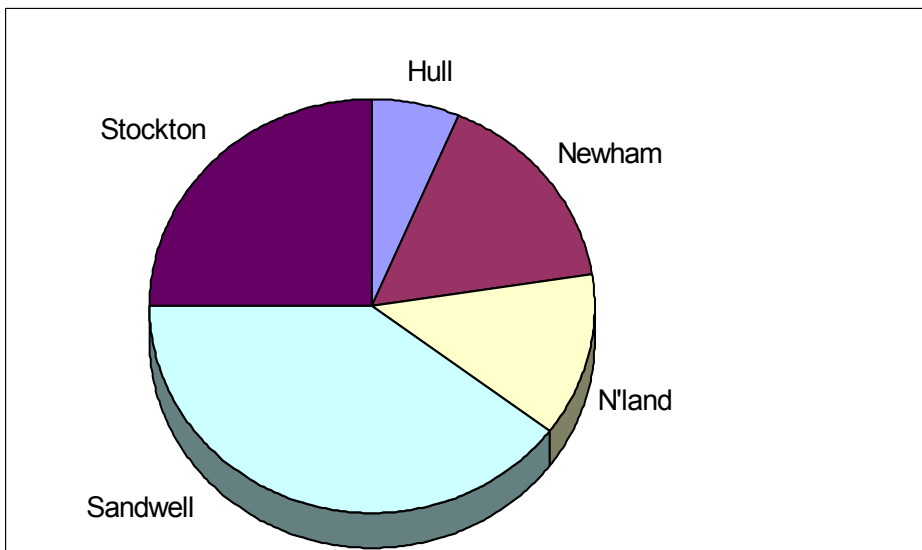


Figure 4-2: % share of total fuel poor households by Zone

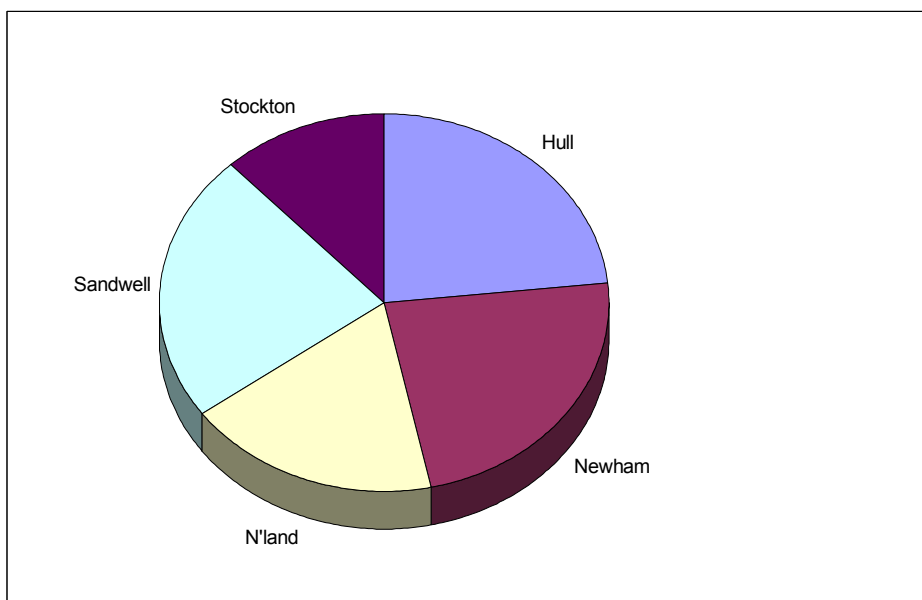


Table 4-2 show the Warm Zones costs in relation to a number of outputs. They demonstrate the **effect of increased throughput on cost reduction**. WZ mean on-cost per household removed from fuel poverty look extremely high at £699, but falls to £311 in Stockton (row 59). The improvement that comes with the greater throughput enabled by high assessment rates and gap funding is also shown by comparing WZ on costs with total costs (row 69) for removing a household from fuel poverty, including intervention costs. Newham's on-costs account for 89% of total costs, declining to 21% in Stockton. Newham's figure may reflect the fact that EEC has been the main referral destination, with consequent lower rates of fuel poverty reduction. However, Newham's on-cost per intervention (including non fuel poor) is also very high (row 58), considering the high rates of fuel poverty in Newham. Part of the reason may be the effort expended on the desk top assessment model that delayed the commencement of street by street assessment and thereby the low level of intervention at this stage.

Hull and Northumberland also show fairly high levels of **on-costs per intervention** (row 58 and 59). This reflects the relatively low levels of fuel poverty found in the two Zones, to date, and the significant proportion of identified FP households with no referral destination. This is probably also a factor in the very high cost in Northumberland per SAP point of improvement. Northumberland's high average SAP ratings may also be a factor.

Sandwell has been very successful in terms of the number of **assessments** undertaken. It has carried out 50% of the total number of assessments in Warm Zones as a whole, although it only accounts for 23% of fuel poverty. Moreover, cost per assessment in Sandwell is lowest at just under £20 (row 65). Cost per assessment in Hull and Stockton is 30% more expensive. The Northumberland figure, at £30, probably reflects local geography (higher travelling time and costs etc). However, the quality of Sandwell's assessments is lower, since most lack the income data that is necessary to assess fuel poverty. Sandwell also imputes floor areas, rather than carry out actual measurements.

Overall **costs of removing households from fuel poverty** (including improvement costs) work are on average £1512 (row 68), of which Warm Zone on-costs currently account for 46%. Stockton, which does more work on average per property, is still the most cost-effective on this measure. This reflects Stockton's relatively low on-costs (21%) due to high rates of assessment, and remarkably good take-up, plus the Zone's ability to provide a package of measures adequate to take more households out of fuel poverty. In other Zones, the high individual costs reflect lack of gap and other funding. Costs per FPI of improvement tend to accelerate with distance travelled. Zones without gap or integration funding are unable to remove many of the higher FPI cases from fuel poverty (see *Section 2*).

An 'optimum-scenario model' was developed at an earlier stage of the evaluation when cost data was not available. The model suggested that it was theoretically possible reduce WZ on-costs to **5%** of total costs (including intervention costs) by taking advantage of a number of efficiencies of clustered delivery, including savings of at least 10% for insulation work and up to 20% for surveys. The 5% represented the price of WZ added value in terms of strategic information, the potential to deliver a more comprehensive package through integration, and the outreach work through marketing, community liaison and doorstep contact. However, these efficiencies could not be realised in practice without changes to contracting and other procedures.

4.3.2 Package Analysis

It is hard to assess Warm Zones' cost effectiveness without a comparator. An approach is to assess the output and results for an investment in Warm Zones of £1,000. *Table 4-3* draws on the results analysis presented in Appendix 1, to give an analysis of the package provided by Warm Zones.

Table 4-3: Package Analysis

Row	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
74	Zone delivers package below for spend of:	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
75	Generates x assessments	38	19	33	50	41	40
76	giving Warm Front Referrals	8	1	9	16	8	10
77	with energy efficiency interventions	5	3	6	12	11	9
78	to a value of:	£3,610	£1,263	£2,391	£8,856	£13,395	£7,596
79	plus: households removed from severe FP	0.17	0.05	0.00	0.55	0.42	0.32
80	plus: households removed from FP	0.52	0.33	0.48	1.21	3.22	1.43
81	increasing energy efficiency by SAP points:	39	14	27	97	147	83
82	giving fuel cost savings pa of	£414	£154	£288	£1,003	£1,411	£838

Table 4-3 shows that £1000 invested in Warm Zones would, on average, generate a considerable **output package** comprising:

- 40 assessments giving rise to 10 Warm Front referrals, and energy efficiency interventions in 9 households, drawing in work valued at over £7,500.
- One and a half households on average would be taken out of fuel poverty completely, with another third of a household taken out of severe fuel poverty.
- The 9 homes concerned would share an improvement of 83 SAP points, giving rise to a saving in required fuel costs of around £838 per annum.

These figures are averages across the Zones, and are markedly better in Sandwell and Stockton. If Stockton's circumstances were reproduced elsewhere, then about three households would be removed from fuel poverty, and annual notional energy savings from the homes improved would be £1400. It is estimated that, overall, about 33% of this work would not have happened without Warm Zones, rising to 70% in Stockton. This represents substantial additionality. Further work will be conducted on the additionality of the Warm Zones.

Arguably, the 40 assessments also contribute to both understanding about the nature of fuel poverty and provide a potential for linkage with EEC schemes directed at non fuel poor households, thus contributing to energy efficiency improvement generally. [Warm Zones have not, to date, exploited this potential in a systematic way.]

This package looks like good value for money, although there is scope for further improvement. On the other hand, it is possible that other approaches would deliver even more for the same expenditure. Without data, particularly fuel poverty impact data, from EEC, Warm Front and social landlord schemes, it is impossible to make a comparison.

5 RESOURCES AND RESOURCE DISPLACEMENT

This section shows that **resource displacement must be occurring** in cases where Warm Zones are performing anywhere near their target levels. In such cases, it would run at about **2 to 2.5 times the expected draw down of funding**, even when allowing for population and expected fuel poverty. This highlights the need for any future development of the Zone approach to ensure, as far as possible, the availability of adequate resources

5.1 Introduction

This section considers the extent to which Warm Zones may be displacing resources for fuel poverty abatement work from elsewhere. There are existing issues including capacity for delivery of soft measures, time for central heating installation within Warm Front that limit progress. In addition, EAGA calculate that, with expansion of work under EEC and social housing programmes, there is an impending shortage of perhaps 500 cavity wall insulation teams alone on a national basis. These are matters that are receiving attention both at national level and locally as in Stockton, through the development of training opportunities. This report focuses on financial resources alone.

5.2 Are there sufficient resources for fuel poverty work?

Stockton plans to use £4.5 million of Warm Front funds over the 3-year period. Warm Front is not allocated to local authority areas however a simple analysis assuming an even spread of take up would suggest a Warm Front spend per local authority district of £1.28 million. In reality, spend will vary with the proportion of eligible households, marketing and referral activity etc. However, on this basis and adjusting for fuel poverty and population levels, in the absence of the Warm Zone an area like Stockton would expect to spend £2.1 million from Warm Front over three years. Therefore Stockton plans to spend more than double the expected draw down of Warm Front funds.

If in two years time there were 30 Warm Zones covering 50 district authorities, then Warm Front spend would reduce to about 70% of the expected total in each non-Warm Zone authority if the budget were restricted to current levels. Stockton also aims to secure similar levels of EEC funding. Stockton has a smaller task than the other Zones given the smaller population and lower than average levels of fuel poverty, although the Zone has set itself a higher internal target of 80% fuel poverty reduction. The other Warm Zones could be expected to draw down higher levels of funding. This highlights the need for any future development of the Zone approach to ensure, as far as possible, the availability of adequate resources.

5.3 Recommendations – resource displacement

The Government should consider the potential implications of an expanded Warm Zone programme for resource displacement with respect to non-Warm Zone areas and adjust programme budgets accordingly.

6 INTERVENTION

This section discusses the type of measures Warm Zones are offering to clients. Zones are seeking to hit their fuel poverty elimination targets almost entirely through the installation of 'hard' energy efficiency measures alone rather than through a mix of hard and other 'soft' measures, such as benefits advice.

Zones are mainly offering the **standard range of Warm Front and EEC measures**. They are not offering many additional measures or appliance schemes, although they are slightly improving fuel poverty impact through some scheme integration (limited to date).

Warm Zones are making limited offerings of more **innovative measures**, such as solid wall insulation and CHP. Further developments are limited by the lack of funding under existing schemes. They are not, therefore tackling the problem of **hard to treat** housing.

With respect to soft measures, Warm Zones have made most progress on offering **energy and benefits advice**, although they have yet to monitor the impact of this. They are typically paying for extra welfare rights capacity, rather than relying on existing provision. Zones are not tackling under-occupancy or offering **financial or tariff advice**. Provision of **debt advice** is limited. Failure to provide **tariff advice** is considered the biggest failing.

6.1 Hard measures

It is striking that Zones are seeking to hit their fuel poverty elimination targets almost entirely through provision of hard measures alone, rather than through a mix of hard and soft measures. Some Zones reported that they intended to focus on offering soft measures if they find that the installation of hard measures alone did not lift a household out of fuel poverty.

Contractor capacity varies from Zone to Zone. Stockton does not report any problems with capacity but has experienced considerable delays in implementing Warm Front works due to high levels of demand for Warm Front and the impact of bulk referrals. Sandwell quotes a 6 month waiting time for central heating works, although 13 weeks is more typical (Sandwell stresses the importance of managing expectations and surveyors explaining the process). Newham reports a 9 month waiting time for central heating installation.

Measures offered - Zones are facilitating access to the standard range of EEC and Warm Front measures, plus some upgrades as described below. None of the Zones are offering energy efficient appliances.

Sandwell was able to upgrade from the Warm Front central heating specification in the New Deal for Communities pilot area. However, the Warm Zone was not able to carry out similar upgrades in other Council areas due to lack of funds. Sandwell is also investigating CHP/District Heating for some of its tower blocks. This is in part because construction problems prevent the installation of CWI.

Newham is investigating the installation of a CHP scheme on one estate, with London Electricity's generating arm. London Electricity may also investigate the development of programmes such as solid wall insulation at a later stage in the EEC programme. It considers this might become a necessity as CWI opportunities etc diminish.

Stockton is carrying out a pilot of Wallreform – an internal/external cladding product for solid walls. However, it is only likely to be of interest to landlords or individual households planning to re-plaster walls due to the disruption caused. Stockton also funds pre-Warm Front remedial works, such as lead pipe replacement, flue installation and works in properties grant aided within the previous 2 years (if the household is fuel poor).

Northumberland is hoping to establish renewable schemes for rural fuel poor households off the gas network. It is investigating in particular the use of biomass powered CHP and district heating for clustered settlements of rural households.

Good practice – helping the non eligible fuel poor

Generous funding from BGT's EEC programme has allowed Stockton Warm Zone to provide measures to households who are ineligible for Warm Front or priority EEC. Stockton believes it can continue to fund measures for these households, providing the proportion does not go up (currently running at about 150/month). BGT does not insist on match funding, other than for private sector non-priority households. Stockton BC contributes match funding for this particular group.

Follow up - All of the Warm Zones provide the standard Warm Front or EEC quality control systems, with respect to energy efficiency advice and standard of works, i.e. 100% inspection of central heating works and 5% inspection of insulation works. Stockton Zone considered undertaking a more extensive consumer follow-up survey, using tools prepared as part of the external evaluation, but eventually decided against this.

6.2 Soft measures

All Zones are offering **energy advice**, typically through referral to the local EEAC. None of the Zones monitor the impact of this advice. None of the Zones are proactively offering **tariff advice**. The reasons for this are discussed in Section 7.5.6. None of the Zones are offering **financial advice**, e.g. access to bank accounts. However, this is a relatively undeveloped field in the 'advice world' in general. Requests for **debt advice** are typically referred to the local CAB, although most CABs have a severe capacity problem with respect to taking on new cases.

Zones are not tackling the issue of **under-occupancy**. In part, this is because there is little practice to refer to at a national level. Some social landlords tackle the issue through stock management processes, although this is a complex area for Warm Zones to intervene in. One Zone Director expressed scepticism about whether under-occupancy should be considered an issue. He argued that Zones (or housing professionals in general) cannot, and should not, attempt to tackle the issue since he considered this would infringe individual rights.

Zones have made most progress on offering **benefits/welfare rights advice**. Stockton secured funding for 2 advice workers, using funds from the Council, Staples Trust, Transco and Warm Zone central budget. Northumberland secured funding for a Welfare Rights worker from Northern Rock and Northumberland Social Services. The worker is based in the Council's Welfare Rights Unit but dedicated to Warm Zone caseload. Northumberland hopes to obtain match funding for another welfare rights worker via the Legal Services Commission.

Sandwell refers cases onto Sandwell Council's Benefit Officers (based in the Council's Neighbourhood Offices), following an initial benefit check over the telephone by npower staff using npower's Ferret system (a computer-based system that matches household circumstances against benefit eligibility). Benefits Officers can also provide basic money advice but refer more complicated cases onto CABs. The Warm Zone plans to supplement Council provision by employing its own benefit advisors, seconded to an existing provider. The need has become quite urgent, due to a recent Council decision to cutback existing provision. However, the Warm Zone was unsuccessful in a recent bid to fund extra welfare rights provision and is now exploring other routes.

Newham spent a long time negotiating advice provision with the Council's Social Regeneration Team but this has not proved fruitful to date. The Warm Zone is now negotiating provision with Community Links, a local voluntary agency. The welfare rights worker will advise Warm Zone referred cases alone but draw upon Community Link's resources. Hull has had discussions with the Council, the local CAB and the Department of Works and Pensions about providing benefits advice for Warm Zone referrals but is not very optimistic about the outcome.

All of the Zones that are actively providing benefits advice have instituted procedures for monitoring the impact of provision. However, cases take a long time to progress, e.g. it takes at

least 3 months for a case to go to Tribunal. They therefore have limited information about the impact of provision. Stockton has suggested that some of the fuel poor, non-WF eligible are households that are not claiming the benefits to which they are entitled. However, this is only a preliminary finding and has not been examined in detail.

None of the Warm Zones has to date run a take-up campaign targeted at potential Warm Front-eligible households, although Newham is contemplating this (using its direct access to Council benefit records).

6.3 Comment

Warm Zones are seeking to hit their fuel poverty targets almost entirely through hard measures provision, rather than through a mix of hard and soft measures. However, some Zones have expressed aspirations that they regard soft measures as playing a particular role in bringing households below the 10% threshold, *after implementation of hard measures*.

6.3.1 Hard measures

Warm Zones are concentrating on implementing the standard range of measures, rather than innovative measures appropriate to unusual property types and/or hard to treat housing or offering appliance schemes. This is not surprising given the challenging Zone targets and the unexpected level of fuel poor households ineligible for Warm Front or priority EEC.

Nevertheless, there are welcome examples of preliminary work on innovative measures packages. These include Stockton's trial of wallreform, Newham and Sandwell's pre-feasibility work on CHP and Northumberland's exploration of biomass CHP for rural villages. Stockton is also providing measures to clients ineligible for Warm Front (e.g. because of the need for remedial works). This perhaps demonstrates the advantages of giving Zones control over energy efficiency programmes, since it gives Zones greater flexibility.

6.3.2 Soft measures

It is considered a serious failing that Warm Zones are not proactively offering tariff advice to assessed households. Such advice has the potential to make a substantial difference to households' fuel poverty status, particularly for households on the margins of fuel poverty.

Warm Zones are increasingly moving to employing their own welfare rights advisers (or 'buying in' provision from existing providers). Zones should seriously consider employing advisers or buying in provision from existing providers. Ideally, Zones should also employ advisers with specialist debt counselling skills. However, debt advice is considerably more time consuming than benefits advice (an average multiple debt case takes around 15 hours to resolve). Employment of debt advisers should therefore be considered a longer term option.

The employment of advisers does not address the central issue about why take-up of certain benefits and among certain groups (e.g. older people) is so poor, issues for the Department of Work and Pensions to address.

The potential impact of welfare rights advice on fuel poverty levels in the Zones will be explored at a later stage of the evaluation.

6.4 Recommendations – measures offered

The Zones should make more efforts to address 'hard to treat' properties through pulling in new sources of funding (beyond Warm Front and EEC). The Zones should continue to explore the potential for leveraging in new sources of funding, particularly regeneration monies, to meet gaps identified through the assessment process.

The Zones should investigate opportunities for offering energy efficient appliances to fuel poor households.

Warm Zones should provide welfare rights advice as part of the basic package of measures offered to households (provision of debt and financial advice should form a longer term objective).

Warm Zones should pay for extra capacity from existing providers, rather than attach welfare rights advisers to Warm Zone teams. This would allow advisers to call upon the specialist resources available to existing providers, such as detailed knowledge of particular benefits.

Warm Zones should consult or organise a best practice event to optimise the potential for take up campaigns. NACAB, LGA's welfare rights advisers and the National Welfare Rights Officers Group should be approached for such advice.

Warm Zones should make arrangements to proactively offer tariff advice to assessed households. Discussions should be held with energywatch to establish an appropriate process for achieving this.

7 WARM ZONE STRUCTURES

This section examines the structures Warm Zones Ltd have established to undertake the Warm Zone task. It concludes that the role and remit of the Warm Zone Board and Central team should be reviewed in the event of an expanded programme. It also contends that the current Board could work more effectively by inviting representatives from local government and Ofgem onto the Board.

The central team has performed its task well but been hampered by structural factors beyond its control.

The individual Warm Zone pilots have adopted 4 approaches to undertaking their task. Stockton's **full control** model appears most successful, since this appears to improve the assessment response rate and give more flexibility to integrate current energy efficiency programmes so that the Zone can hit fuel poverty targets. However, Stockton has benefited from access to both fuel company and local authority resources that are not available to other Zones.

Sponsorship of Zones and staff secondment by energy companies with **EEC responsibilities** limits Zones' abilities to utilise the full range of fuel poverty measures. Zones may not be brokering the best possible EEC deals and are not proactively offering **tariff advice**.

Zones critically depend on commitment and resources from the relevant local authority. This is most evident in Stockton, although Newham also potentially demonstrates advantages, particularly in harnessing **regeneration funds** for fuel poverty schemes (due to late start-up in Newham, it is too early to evaluate its approach). Other Zones have had less success in accessing such funds.

It is essential for any future Zones to establish firm commitment, both at strategic and operational level, from local authorities in the pre-launch period. Northumberland demonstrates the difficulties of obtaining this commitment when dealing with multiple local authorities organised into two tiers.

7.1 Warm Zone Board

7.1.1 Introduction

The Board is responsible for delivering the aims and objectives of the Warm Zones initiative. In broad terms the Board is Warm Zones' decision-making body, although a considerable amount of discretion is given to individual Zones in recognition of their pilot status. The Board is directly responsible for audit costs, board expenses and contingency sums for consultancy and other work. It is also responsible for approving the budgets of the individual Zones, which includes the employment of staff and negotiation of contracts with service providers.

Most of the Zones' key partners are represented on the Board, there are some important omissions (see below). The current Board consists of 6 non-executive directors and 2 executive Directors. The non-executive directors are:

- Michael Moore (Consumers Association and Chair of Board)
- Tony Burton (Eaga)
- Phil Keir (npower)
- Beccy Brown (Transco)
- Garry Worthington (TXU Warm Front)
- William Gillis (NEA)

The executive directors are Richard Adams (Contraflow) and Mark Patchett (MPCS). The executive directors have a direct material interest in supplying contracted services to Warm Zones Ltd.

Interviews were conducted with Michael Moore, William Gillis, Beccy Brown, Tony Burton and Phil Keir (the latter four as part of our interviews with Partnership Committee members and Warm Zone Directors). The perspective of Richard Adams and Mark Patchett was obtained as part of a day-long meeting between the external evaluation team and the Warm Zone central team. Garry Worthington will be interviewed during the next stage of the evaluation. Warm Zone Directors

were also asked to give their perspective on the Board. The external evaluators attend Board meetings as observers and have analysed Board minutes and documentation. The following outlines the assessment of the Board's role in the Warm Zone initiative.

7.1.2 Membership

There are minor tensions about the Board's composition. Different members of the Board have raised doubts about the involvement of the consultants, Stockton Warm Zone Director and EAGA. This is because outside interests may consider that there are potential conflicts of interest between these members' organisational responsibilities and their role on the Warm Zone Board. It is not possible to comment, at this stage, on whether such conflicts of interest are real or imagined. All members of the Board make a valuable contribution to Board meetings and decisions. It is suggested that certain structural weaknesses, relating to the Board's role and remit, are more important considerations than membership (see below).

It is understood that npower and Transco are represented on the Board because of the substantial contributions they make to the Warm Zone finances. London Electricity is described as a supporter, rather than sponsor, because its contribution is smaller. This distinction is questioned, however, on the grounds that Newham aims to demonstrate that the Warm Zone model will work with a reduced contribution from the sponsoring/ supporting fuel company coupled with an income stream from EEC works. London Electricity is willing to support future Warm Zones (probably in London) and believes the Newham model makes this more feasible.

It is notable that the Board does not include representatives of Government, local government, installers' trade associations, fuel companies' trade associations, Ofgem, consumer bodies or independent researchers. An argument could be made for including representatives from any one of these bodies on the Board, although the Board's Chair has expressed concern to keep membership small and manageable. The Chair also takes the view that it would be difficult to identify a local government representative who did not have a sectional interest. However, a similar argument could be made for existing members of the Board.

Despite these concerns, it is suggested that additional representation from local government, the Local Government Association (LGA) or Improvement and Development Agency (IdEA), and Ofgem would benefit the Warm Zones.

7.1.3 Conduct of Board meetings

The Board Chair believes that decisions should be arrived at by consensus. He considers the meeting is a failure if it became necessary to take a vote. Nevertheless, it occasionally appears that decisions are reached without full discussion of all sides of an argument being presented.

A large amount of documentation is circulated prior to Board meetings. Board members are conscientious in scrutinising papers before meetings and accordingly discussion is informed. Papers are approved as a whole, although occasionally Board members may request supplementary information or approve with caveats attached. The authors of Board reports should include a 'recommendation' section at the end of reports to facilitate decision-making.

7.1.4 Role and remit of Board

Interviews with the central team, Zone Directors and Board members revealed a number of issues relating to the Board's role. The following summarises the views expressed. While this is not the perspective of all interviewees, it does represent a significant strand of opinion. Problems identified included:

- the Board does not give sufficient direction to the overall Warm Zone initiative;

- the Board is insufficiently rigorous on forward planning, tracking progress within Zones, data reporting procedures and financial oversight;
- the Board has an insufficient central resource, although this was partly addressed by a recent Board decision to pay for a larger accountancy input;
- members do not have sufficient time to devote to Board business; and
- the composition of the Board has evolved, rather than been planned; the composition made sense at the planning and launch stage but is not now properly structured for the future.

The Board Chair does not agree with these views. He argued that the Board was given a brief to 'keep a light touch' and play a catalytic role, interpreted as making sure the Zones are running smoothly and within budget but allowing them to experiment with different ways of implementing the model. Board intervention should only take place when firm action is required, implying that the Board played a reactive rather than proactive role. An example given of the type of problem requiring Board intervention was the decision to appoint a new Director in Newham¹⁶. However, the Chair accepts that the Board's role and remit should be reviewed if the programme is expanded. Indeed, he argued that the review should discuss whether there was a need for a Board at all.

The central team considers that the lack of central resources has arisen from the delay in a decision on whether to roll out the Warm Zone programme. This prevented the central team changing from performing a catalytic function to one of forward planning. The central team envisaged that a team of permanent staff would undertake the latter role, a cheaper option than the employment of consultants. This does not necessarily mean that the same members of staff follow the change in role. Of course, the programme was set up as a 3 year pilot. Thus, the central team should not have assumed that a decision would be taken after one year of the pilot.

The level of service contracted from the central team was reduced earlier this year, once all the 5 pilots were established. It is possible that a permanent team may be better placed to provide the Board with direction and long term planning facility. However, there is no consensus as to whether this is the best way forward. One Board member argued that, even in an expanded Warm Zone programme, most services should be 'bought in' from consultants, with perhaps only a permanent office manager employed.

All Warm Zone Directors and Board members believe that the role of the Board will need to change, should the Warm Zone programme be expanded. The nature of this change is considered dependent on the precise form in which expansion takes place.

7.1.5 Comment

It is clear that there are differences of opinion from within the Warm Zone initiative over the role expected of the Board. While there is universal agreement that the Board's role should be reviewed in an expanded programme, there is disagreement over whether current arrangements for the pilot phase are adequate. This might be resolved by an early decision, at least in principle, on expansion of the Warm Zone programme. If the decision is positive it is recommended that the Board's remit is reviewed as a matter of urgency.

7.1.6 Recommendations – Board structure

It is recommended that membership of the Board is extended **in the current pilot phase**, to include two further members: one from local government and one from Ofgem.

In the event of an expanded Warm Zone programme, it is recommended that an independent review of the Warm Zone Board and central team is conducted. The review should address, among other matters:

¹⁶ The new Director was appointed in March this year. In part, this arose in response to the concern that measures installation had still not taken place, over one year after start-up. This was due to the Zone's almost exclusive focus on trying to make the desktop assessment process work.

- terms of reference (there are currently no formal terms of reference)
- composition of the Board and central team
- relationship of the Board to central team and to pilots (perhaps through a memorandum of understanding)
- overall structure of Warm Zone initiative (including whether there is a requirement for a Board)
- reporting arrangements
- financial governance

7.2 Central team

7.2.1 Role

The central team was set up as the executive arm of Warm Zones Ltd. It is responsible for 'catalysing' the establishment of the pilot Zones, putting in place appropriate processes and procedures and making sure the structure allows for the initiative to be rolled out. The team consists of 5 members of staff, providing accountancy, evaluation and IT skills as well as project management etc. The Board Chair views Mark Patchett as playing the role of Warm Zone Chief Executive, although it is not clear whether this is the understanding of the central team and Zone Directors.

As stated above, it was originally envisaged that the central team would move from a catalytic role to a development role that would be provided by a team of permanent staff. The development role would largely consist of rolling out the Warm Zone programme, and remains an option. A further period of experimentation should be undertaken before full-scale expansion takes place. Under this scenario, the central team would continue to play a catalytic role.

7.2.2 Remit

The original remit for the central team was as follows:

- determine criteria for, broker and establish a group of pathfinder zones to comprise the pilot, and for subsequent zones, if the pilot was extended;
- establish a business plan, baseline evaluation and zonal target-setting process common to all zones and oversee implementation;
- establish a parent corporate structure for each zone together with management and administrative support;
- act as a national co-ordinating and reporting body providing accountability for Government and partners;
- provide an active conduit for Government and national partner funding through an organisation with financial and management credibility and a focused commitment to aiding all those identified as being in fuel poverty;
- provide a developing national resource database of effective local energy efficiency and fuel poverty measures; and
- develop and transfer experience and skills between zones.

The Board reviewed the role of the central team in September 2001 and confirmed it as a continuing requirement. The following comments are based on the team's own review of its performance, interviews with Warm Zone Directors, interviews with members of Partnership Committees and our interpretation of this evidence.

7.2.3 Comment

Criteria - the central team established criteria for selection of Warm Zones. In brief, these included high placement on DLTR's Index of Multiple Deprivation (now Office of Deputy Prime Minister); mix of metropolitan, town and rural areas; population of between 250-400,000 covering a local authority area and a range of desirable criteria, such as demonstrable interest in fuel poverty from local authorities.

In practice, the location of Zones was selected primarily on the basis of energy company preference. For example, because Transco had an existing relationship with Stockton Borough Council, it was keen to sponsor a Zone in Stockton, although the area did not appear to have high overall levels of fuel poverty. Transco subsequently decided that it wished to expand the Zone approach within the Teeside area and oversaw competitive bidding among Teeside local authorities to decide the next Zone. Redcar and Cleveland was eventually selected.

There are varying opinions on this process, particularly in the context of an expanded programme. Some consider that severity of deprivation should form the key criteria for future Zones, while others consider it should be entirely locally determined. The latter view is given for pragmatic reasons: Warm Zones, it is argued, will only happen if the local authority and fuel company are enthusiastic about making it happen. Variations of these two views were also expressed. Some suggested that the two critical criteria were level of deprivation and a willing local authority, with others adding further criteria such as the pre-existence of an up-to-date property database and the commitment of hypothecated EEC funds to the potential Zone.

Business planning – the central team has established effective processes; however, there is considerable variation in quality between Zones. Northumberland's Business Plan has yet to be approved and the Board rejected Hull's initial budget in May 2002 (the Zone is currently working to a 'Development Business Plan' and interim budget only). This gives cause for concern, given the Zones' three year lifespan.

The central team has played an important role in 'trouble shooting', as problems occur, e.g. sorting out management issues in Newham. Considerable time was spent at the beginning of this year on establishing data standards, relating to data collection, analysis and interpretation. A 'data standards' day in February tackled issues such as information collected for assessment, the measurement of income on the doorstep and assessor success rates. However, there is still concern about data reporting standards and lack of validation of the assessment process (see 9.1). The data reporting problems appear to stem from the fact that the central team can only request information from Zones, rather than require information.

Corporate structures for Zones – this is now complete. Partnership Committees are in place and personnel and accounting functions, centrally established. Individual Zones have established a variety of structures to fulfil their function. Earlier comments have been made on structural problems with the Board and central team and later in the report comments are provided on the relative merits of the structures adopted by individual Zones.

National coordinating and reporting body – bi-monthly (originally monthly) reports are sent to Government (Defra and DTI) by the central team and three face-to-face meetings have been held through the 'stakeholder' group. The central team has expressed concern about the lack of feedback from Government. However, the Government considers feedback is provided, in part, through this evaluation and, in part, through the Fuel Poverty Advisory Group (FPAG).

Conduit for Government and national partner funding – the Government has provided funding for the central structure and some funding has been obtained from charitable trusts. However, the central team had hoped to persuade EEC fund-holders to work through Warm Zones and this has not happened in general. Nevertheless, EEC fund-holders have channelled some money into Warm Zones. The level is only considered adequate in Stockton's case.

Provide a national database of local energy efficiency measures – the central team suggests this has not been significant because of the non-transferability of schemes out of supplier areas. Certain schemes are considered to be transferable. Even if this was not the case, there is still value in learning from Zones' experiences. It is suggested that Warm Zone project details are forwarded to Energy Efficiency Partnership for Homes Fuel Poverty Scheme Design Database. This would help avoid duplication of effort.

Transfer of skills between Zones – the Zone Director meetings have played a useful role in developing good practice between Zones. The central team suggests that Zones are reluctant, to some extent, to modify programmes once in place.

7.3 Individual Zones

7.3.1 Structure

Warm Zones have adopted a variety of structures at the local level. These are described below (*Table 7-1* below gives a summary of arrangements adopted):

Full control – Most energy efficiency activity in *Stockton* is channelled and managed through the Warm Zone. This includes Council programmes, Energy Efficiency Commitment (EEC) programmes and a large element of Warm Front work. This gives the Zone considerable flexibility to integrate programmes and provide measures for all fuel poor households. Assessments are undertaken using a team of directly employed and sub-contracted assessors. Surveys are completed by a using a team of surveyors provided on secondment from EAGA overseen by a directly employed supervisor. For Warm Front jobs, the Zone allocates to Warm Front approved installers, requesting authorisation and approval of payment through the Scheme Manager. Stockton manages the installation work for programmes funded by British Gas through EEC and Stockton Metropolitan Borough Council (MBC). Data management and processing is carried out 'in-house'. The overall approach adopted requires a large staff resource. The Zone has taken over some local authority functions including maintenance of the property database and HECA reporting, aiming to achieve efficiency gains elsewhere in the overall Zone partnership.

Facilitation – Sandwell and Northumberland Warm Zones facilitate access to existing programmes with limited integration of delivery.

In *Sandwell*, installers carry out assessments on an in-kind basis with 2 full time equivalent assessors employed directly by the Zone for more difficult areas. EAGA carries out Warm Front surveys for 'free' and has seconded a supervisor to Sandwell to oversee the process. EAGA also provides surveyors for a programme funded jointly by npower and Sandwell but charges a fee for each survey completed. The Zone has sub-contracted data management and processing to the Black Country EEAC.

Northumberland employs its own assessment team and supervisor, with a small proportion of assessments funded by contractors. EAGA carries out Warm Front surveys for 'free' otherwise. Data management is sub-contracted to the Energy Audit Company and scanning of assessment forms is sub-contracted to Kirklees EEAC.

Service management – *Hull* has adopted a 'service-management' model requiring a limited staff resource in the Zone itself. Data management, assessment and surveys are sub-contracted to National Energy Services (NES) who refer installation jobs to Dearle and Henderson (D&H) who manage installers on behalf of the TXU Warm Front team. Hull County Council 'Hull Connect' Call Centre fields general enquiries to the Warm Zone through an in-kind contribution. Hull City Council manages its own energy efficiency programme, although the Zone has negotiated joint funding between the Council and npower.

Area management – *Newham* has set up a system in which two Area Managers (EAGA and Osborne/Helpco) are responsible for delivering the Warm Zone programme, with responsibility for management of the assessment process and programme integration. The original model included a fee system for work identified through Warm Zone assessments to provide an income stream for the Zone and improve its long-term financial sustainability. This is being renegotiated following the delays with the assessment process. Contractors currently carry out assessments for 'free', with a small team of directly employed assessors working in some areas. Data management and processing is carried out in-house. The Zone is unusual in its reliance on EEC funds, rather than Warm Front, to fund energy efficiency measures.

Newham Warm Zone is described as local authority-led and originally the Director was a secondee from Newham BC. There is now a new independent Director however the original Director has remained within the Warm Zone to develop the desk to model.

Newham considers its approach as more sustainable, in that it does not require the same level of management costs as the other Zones and has a potential income stream with the area manager fee system. However, due to the delays encountered it is too early to assess the effectiveness of Newham's case.

Table 7-1: Organisational responsibilities in pilots

Function	Stockton	Sandwell	Northumberland	Newham	Hull
Zone sponsor/ supporter	Transco	Npower	Npower	London Electricity	Npower
Source of EEC funds	British Gas	Npower	Npower (Scottish Power in Blythe Valley's case*)	London Electricity	Npower
Director	Transco	Npower	Npower	Independent	Npower
Assessment	In-house	Contractors, plus small in-house team	In-house	Contractors, plus small in-house team	NES
Integration of schemes	In-house	In-house	In-house	In-house, plus Area Managers	In-house, plus D&H
Survey	EAGA, plus in-house supervisor	EAGA, plus in-house supervisor	EAGA and EEC contractors	Area Managers	NES
Scheme administration	In-house, EAGA	EAGA	EAGA	Area Managers	D&H
Data management	In-house	In-house	EAS	In-house	NES
Soft measures (welfare rights)	In-house (seconded to Social Services)	Sandwell BC, plus initial screen by npower	In- house (seconded to Social Services)	Community Links	Still under discussion

*arranged by Council independently of Warm Zone

7.3.2 Staffing

All Warm Zone staff are 'employed' by Warm Zones Ltd, as opposed to the individual Zones. A number of staff are secondees to individual Zones, including 4 of the 5 Directors (the exception is Newham's Director). These Directors are seconded from the sponsoring fuel companies. Other posts are filled by secondees from the fuel companies, local authorities, Eaga and NEA.

Newham Warm Zone is the only Zone to have undertaken an active recruitment process for the Director's position. This was undertaken at the beginning of 2002, due to Warm Zone Ltd's decision that the original Director should focus on developing the desktop analysis methodology. The new Director's post is joint-funded by Newham Council and London Electricity.

It can be seen that Warm Zones rely extensively on staff secondment. This has the advantage of allowing Warm Zones to recruit a quality of staff that they might not have achieved through direct employment. However, there is a risk that seconded staff may be unsuitable or difficult to manage. It is very striking that 4 out of 5 Directors' are first and foremost answerable to the sponsoring energy company, rather than Warm Zone Ltd. In npower's case, the 2 Directors report to npower's Director of Social and Environmental Action (alongside npower's Health through Warmth Director and EEC Director).

There are obvious advantages in Zone Directors having access to senior management within the sponsoring company. However, there are disadvantages in that Warm Zones' objectives may not necessarily coincide with those of the companies, as the tariff advice and EEC brokering issues demonstrably illustrate.

7.3.3 Comment – organisational structures adopted by pilots

Stockton - On most of the key criteria, the Stockton model has proved very successful. The Zone is slightly behind in meeting most of its targets and has to accelerate the implementation of measures. The Zone has a high response rate for assessments, has integrated key energy efficiency programmes and is providing measures for the fuel poor who are not on benefits (and therefore not eligible for Warm Front or priority EEC funds). Control over the various energy efficiency programmes has given the Zone greater flexibility to provide assistance to people and properties that do not 'match' standard programme criteria.

The Zone has adopted a systematic approach to rolling out the programme on a ward-by-ward basis. It pulls in sub-contracted assessors for wards with large number of households, whilst maintaining high quality standards of assessment. The Zone achieves a higher success rate for assessments (about 70%, compared to around 55% in Sandwell and 34% in Northumberland).¹⁷

The 'Stockton' model therefore appears successful and effective. It is a model that has already been adopted (with adaptations) for Transco's Redcar and Cleveland Warm Zone. It suggests that 'full control' over all aspects of the Warm Zone approach works and is worth repeating. However, there are a number of additional factors contributing to Stockton's success. They include:

- A Director with good strategic and operational management skills
- A well organised and committed local authority, able to commit resources towards the programme: Stockton MBC already had a long history of energy efficiency and fuel poverty work.
- A generous contribution from BGT's EEC fund (previously SoP), which in the case of priority cases is not dependent on match funding (although BGT does expect match funding for non-priority households, even if they are fuel poor).
- Generous sponsorship from an 'independent' fuel company, Transco that does not have EEC responsibilities. The Zone also benefited from the pre-existing relationship between Transco and Stockton Council.

This combination of factors appears fairly unusual. They will be difficult to reproduce in a wide variety of locations. It is also an expensive model (see cost effectiveness chapter). If other areas can provide similar conditions to Stockton's, the model is worth repeating. However, it is suspected that Stockton will prove to be the exception, rather than the rule. Stockton benefits from an unusual combination of lower fuel poverty rates and high levels of energy efficiency funding.

Evidence is provided (see sections 10.4 and 10.5) that there are structural issues within the main energy efficiency programmes that limit Warm Zones (with the exception of Stockton) from fulfilling their objectives. It is suggested that this is inevitable, no matter how well organised a structure they have. These flaws are likely to prove a major barrier to the ability of any future Zones to meet anti-fuel poverty objectives.

Sandwell has made considerable progress on meeting its targets, particularly in the social housing sector. The Warm Zone benefited from negotiating an agreement with Eaga in which £3.2m of Warm Front funds were ring-fenced to the Zone. The Zone prioritised spending these funds in the social housing sector, to maximise the impact of Warm Front before the cut-off period for Warm Front works in social housing came into effect (April 2002)¹⁸. The Zone tried to get an extension to the cut-off period from Defra, without success.

¹⁷ Stockton claims a success rate of, on average, 80%. However, this includes people who initially respond but subsequently refuse to answer assessors' questions. Stockton justifies this on the grounds that assessors take as much time with these cases as with positive responses. For the sake of comparison, refusals are not included in Stockton's success rate.

¹⁸ Eaga stopped carrying out surveys in social housing in February 02, although it has continued to complete heating systems resulting from these surveys.

However, the Warm Zone has been constrained by the Council's lack of capital for energy efficiency measures and npower's insistence on match funding for its EEC programme¹⁹. Coupled with the mismatch between fuel poverty status and Warm Front eligibility, Sandwell is not likely to hit its targets.

Sandwell, in common with the remaining Zones, has not achieved the same response rate for assessments as Stockton, although rates have steadily improved over time. This is possibly due to the fact that Sandwell does not pay for assessments (apart from the costs involved in employing its own small team). Lower response rates mean that there is a risk that many vulnerable households will not benefit from improvements. This undermines one of the main benefits attributed to the Warm Zone approach, namely its ability to identify the 'worst' households through the systematic approach.

However, it is noted that Sandwell intends to carry out a 'mopping up' exercise in which it revisits 'missed' households. It has set itself a target of achieving a response rate of 90% of all occupied properties by the end of the 3 year period. Sandwell should also be commended for the sheer volume of assessments it has carried out to date (37,000 by July 2002 – the highest in all Zones). It is the only other Zone (alongside Stockton) on target for meeting its assessment task. The Zone has only collected full income details for about 10% of the assessments carried out. The Zone originally only inferred income data from Sandwell Council's monthly social trends report. The Zone argued that there are cultural factors that mean many households are reluctant to report income.

Sandwell is not likely to hit its fuel poverty reduction targets. However, the main reason is not the model adopted by the Zone, although out-sourcing assessment, reliance on an EEC company for leadership and (perhaps) failure to pull in regeneration money²⁰ is a concern. The main fault is considered to lie with the rules governing mainstream fuel poverty programmes, namely:

- the eligibility criteria for Warm Front and priority EEC leading to a mismatch of around 40% between eligibility and fuel poverty status
- the scale of funding available under Warm Front
- limitations on grant maxima and measures offered by Warm Front (many fuel poor households receiving Warm Front are not removed from fuel poverty)
- the adequacy of funding for energy efficiency improvement within social housing stock, now that Warm Front funding is no longer applicable

These problems also apply to the remaining Zones. The remaining comments therefore only cover issues inherent to the Zones themselves.

Northumberland demonstrates the difficulty of both implementing a Warm Zone approach in a rural area and of working with multiple local authorities (it has to work with a two tier local authority system). Both factors suggest that, for the Warm Zone approach to work, a more generous level of funding is required. It also suggests that an extended period of partnership-building with the different local authorities is required so that the Warm Zone can agree common objectives with authorities before it embarks on its work programme.

The success rate for assessments in Northumberland is very low. This may in part arise from the rural nature of the area, since assessors have to travel longer distances and repeat visits are more difficult. Assessors also report considerable problems resulting from bad weather. Northumberland also has a larger proportion of affluent households who are reluctant to volunteer information or are more difficult to make contact with (all Zones report difficulty in assessing these

¹⁹ Nevertheless, the Zone successfully negotiated a £1m pa programme between the Council and npower, in which £1/2m is contributed from EEC and £1/2m from the Council.

²⁰ Zones' lack of success in levering in regeneration funds will be investigated further at the next stage of the evaluation, for example whether the problem is structural, a product of local contextual issues or the fault of Zones themselves.

households). Inadequate training of assessors or failure to door-knock in evenings and weekends may also be factors.

The Warm Zone approach has the potential to work in rural areas. However, the longer travelling distances involved, the more dispersed nature of fuel poverty (concentrations do not occur to the same extent as urban areas) and the considerable variability of local authority commitment means that a greater level of resources is required per fuel poor household, maybe an additional 20% funding.

Newham aims to demonstrate that a Warm Zone approach is feasible with a lower level of fuel company sponsorship than is provided in the other Zones. Given the fact that Newham has only recently started the assessment job in earnest, it is difficult to assess the validity of Newham's case. The desktop analysis approach deserves continuing development and could reduce the size of the assessment task. This has significant implications for both the existing pilots and any future Zones and should reduce costs considerably.

Hull aims to demonstrate that it is possible to manage a Warm Zone with a minimal staff resource. However, at the time of writing this report, the Board had not approved Hull's budget and only a limited amount of work had been undertaken due to the long delay in start-up. The latter arose from a long period of uncertainty due to npower's takeover of Yorkshire Electricity in 2001. It is therefore too early to comment on Hull's approach. The lack of resources from the City Council and serious problems within the Council's housing management service²¹ are a cause for concern.

7.4 Conclusions – Zone structure

Given the varied progress made across the Warm Zones at this point, it is not possible to make detailed recommendations regarding appropriate organisational structures. Most of the models are yet to be truly implemented. Stockton has obviously made better progress than other Zones however the analysis of the extent to which this approach is transferable to other areas is complicated by the particular circumstances within which it operates. Further, limited progress in other Zones means it is difficult to assess how common elements operate in differing circumstances and the extent to which any findings might have external validity. The following provide some early indications of positive and negative elements for the Warm Zone model:

- i. There are considerable advantages in Zones having a decisive input to the local management of energy efficiency programmes, including those run by Councils (or 'arms-length' management companies).
- ii. There are disadvantages in using contractors as a means of providing 'free' assessments.
- iii. There are significant structural disadvantages in reliance on EEC companies as a means of providing leadership for individual Zones. More details are provided in the following section.

7.5 The role of fuel companies

7.5.1 Introduction

The Warm Zone model gives fuel companies a central role in the initiative. Fuel companies are represented on the Warm Zone Board, have provided Directors for four of the pilots and a key manager in the fifth and have seconded a number of staff. Fuel companies have also provided considerable finance towards Warm Zone management costs and in some cases significant EEC funds towards programmes. However, there are also drawbacks to the fuel companies' leadership role that undermine Zone potential. These are described below. First, the perspective of fuel companies towards the Warm Zone initiative is summarised.

²¹ The Audit Commission of Hull CC (July 02) recommended external Government intervention and support. All capital and revenue expenditure is being reviewed, with the objective of reducing expenditure. It is possible that the EEC contribution will not be fully used as the Council scales back future work programmes, including the housing capital budget.

7.5.2 Fuel company perspectives

Representatives from British Gas (Stockton), London Electricity (Newham) and npower (Sandwell) were interviewed as part of the Partnership Committee evaluation (see 8.4). Although npower also sponsors Northumberland and Hull, these Zones had not established Partnership Committees at the time the partnership interviews took place.

British Gas referred to the problems caused by moving from SoP to EEC. Under SoP, it was relatively straightforward for British Gas to provide gap funding. EEC, however, was seen as more inflexible. The Warm Zone was able to overcome this by centralising all energy efficiency money into one 'pot' and providing a 'gap fund' through this. This is particularly useful for those in fuel poverty and not on Benefits. British Gas has not insisted on match funding other than for fuel poor private sector households not on Benefits (Stockton Council provided match funding for this particular group). British Gas has worked with Stockton Warm Zone to lobby for amendments to target criteria for funding schemes.

British Gas was uncertain whether Warm Zones were cost-effective. It felt there may be cheaper ways for the company to hit its EEC targets. Future commitments to an expanded Warm Zone programme were contingent on where Warm Zones were located, the quality of Directors recruited and the commitment of the relevant local authorities.

London Electricity referred to the need for innovation on funding, particularly with respect to match funding. It found this was easy with local authority and RSL housing but much harder with private sector landlords. Newham BC has been able to use regeneration money for match funding, although other Zones have found this more difficult.

London Electricity considered it too early to comment on the effectiveness of Warm Zones for hitting EEC targets. However, LE strongly supported the Warm Zone approach and was keen to target further EEC resources to an expanded Warm Zone programme. It considered Newham's approach made this more feasible since it was not so dependent on a large injection of funds from the sponsoring/supporting fuel company (the Newham model is based on the Zone receiving a regular income stream from fees paid by Area Managers for delivering EEC programmes).

Npower does not consider Warm Zones as central to npower business because it could not see any commercial benefit. However, the company is committed to the initiative because it believes companies should put money into communities in which they have large numbers of customers. Npower does not have sufficient evidence to establish whether Warm Zones provide an effective means of targeting EEC resources. However, Sandwell has generated a significant number of referrals for resources, due to the size of the problem. Npower is concerned about the mismatch between fuel poverty status and Warm Front eligibility and presumably about the mismatch between fuel poverty and priority EEC status, although the company did not explicitly comment on this.

All companies were hostile to the notion of Warm Zones pulling in EEC funds from non-sponsoring fuel companies or the notion of Zones pulling in EEC funds from several companies to the same area. LE referred to its strategic objective to make sure London-based Warm Zones did not pull in EEC resources from other companies. Instead it would prefer to make sure that LE was able to contribute sufficient EEC funds to allow Newham (and future Zones) to hit its targets. British Gas felt that it would be strategically unacceptable and undermining of the company's support, should Stockton Warm Zone seek EEC funds from other companies. Npower took a similar view.

7.5.3 Issues relating to fuel company leadership

A number of problems are identified with the central role given to fuel companies. These include:

- Fuel company leadership may limit the potential for Warm Zones to broker EEC funds from the different companies, in that Zones are only accessing EEC funds from the sponsoring company (with the exception of Stockton)

- Warm Zones are not proactively offering tariff advice, despite the fact that this can have a significant impact on the fuel bills of the fuel poor
- Take-over and merger activity can undermine Warm Zone progress, as was the case in Hull.

Evidence from our interviews with Zone Directors and members of the Partnership Committees supports the above concerns. These are examined in greater depth below.

7.5.4 Brokering EEC funds at Zone level

All fuel companies are actively seeking partnerships with local authorities and social landlords to provide match funding for their EEC programmes. Warm Zones are potentially in a very good position to broker favourable deals with the different companies. They can offer a wealth of assessment data and a management structure that facilitates implementation of EEC programmes. The ability of Warm Zones to play a brokering role is limited by their reliance on fuel company sponsorship and the position of a fuel company secondee as Zone Director.

Because Zones are only drawing down EEC funds from the sponsoring company, they are not necessarily maximising the potential energy efficiency resource. Sandwell, for example, argues that it could draw down a larger EEC resource from npower, if the local authority was prepared to match this contribution. The Zone identifies the problem as lying with the local authority. However, BGT appears to be more flexible over its expectation for match funding with respect to priority groups (as evident in Stockton). It is possible that an independent Warm Zone in Sandwell might have accessed BGT funds and therefore not been so restricted by the lack of local authority resources.

Hull City Council similarly actively considered entering a deal with BGT for undertaking energy efficiency improvements in Council stock. Had it done so, the Warm Zone would have felt seriously compromised, given npower's sponsorship. With respect to private sector or non-priority group EEC schemes, Warm Zones will be compromised should they market their own companies' schemes when they are fully aware that better schemes are available from other companies. For example, some companies require a 50% contribution from non-priority groups towards schemes, whereas others insist on a 70% contribution.

Stockton Warm Zone is less constrained in this respect, in that a company without EEC responsibilities sponsors the Zone. However, the Zone has only accessed BGT EEC funds. BGT made it clear that if the Zone had attempted to access other suppliers' EEC funds, "*it would send a confused message to householders*". Stockton might argue that BGT offered the best deal, although it is not clear whether the Zone approached other companies or played a 'brokering role'. Stockton promotes BGT's involvement on some marketing material and to householders assisted under BGT's EEC programme.

Representatives of Transco and BGT share this perspective on the conflict of interest arising from four of the Warm Zones' reliance on fuel supplier sponsorship. Both highlighted this issue during our partnership and Zone Director interviews.

7.5.5 Brokering EEC funds at central level

The Warm Zone central team attempted to broker a deal centrally with fuel companies in which companies agreed to deliver their EEC programmes through Warm Zones. This potentially could have demonstrated the value of a centralised structure in that they could have negotiated favourable deals by mustering Warm Zones' collective weight. They were not successful in achieving this objective. It is possible that the central team might have had a greater bargaining position if there were more Warm Zones in place. However, it is more likely that EEC companies are concerned to market their programmes at a national level and do not want to relinquish control with respect to local marketing campaigns.

If the Government decides to roll out the Warm Zone programme, it is recommended to re-visit EEC criteria so that it is more beneficial for companies to negotiate deals with centralised bodies

such as Warm Zones Ltd. The Government should consider the Warm Zone experience when it puts forward proposals for the next round of EEC.

7.5.6 Tariff advice

Warm Zones are not proactively offering tariff advice, despite the potential impact of such advice on the fuel bills of the fuel poor. Perhaps this is not surprising, given the Warm Zones' reliance on fuel company sponsorship and staff secondment. Fuel company staff would be placed in an ambiguous position if they should manage an organisation that advised clients to switch to another fuel company. It is notable that Stockton does not offer tariff advice, although it ostensibly is more independent than the other Zones, given Transco's sponsorship. This will be investigated further. It is notable that the Warm Zone Board decided to not proactively pursue this route, although the Central Team originally considered this should be a key role for Zones.

Theoretically, it should be relatively straightforward for Zones to offer a tariff advice service, perhaps through an arrangement with energywatch or through a local EEAC that could base advice on one of the energywatch approved website services. There would undoubtedly be legal and other issues to resolve. However, it is notable that from the very outset Zones did not investigate this route.

Zone Directors have not directly informed us that the offering of tariff advice would undermine their company's competitive position or the public relation benefits from sponsoring Zones. However, a number of independent partners within the Zone initiative take this view. They consider fuel company sponsorship prevents Zones from mobilising the full range of possible anti-fuel poverty interventions.

7.5.7 Potential for expanded fuel company sponsorship

There are practical limits to the number of Zones fuel companies are prepared to sponsor. These relate to both limits on the likely level of financial contribution and the availability of skilled managers who could prove suitable Directors for future Zones. One Director felt companies were only likely to sponsor, at most, another 12 Zones, whereas another put the likely limit at 30-50. The latter considered this represented the maximum number of areas that would benefit from the Warm Zone approach since Zones were only considered workable in urban areas with high concentrations of fuel poverty and general deprivation.

One Zone director considered that other types of private company might sponsor future Zones, such as companies selling home products. Knowledge of energy efficiency was less important than business and management skills, coupled with a commercial orientation. Warm Zones offer companies good opportunities for promotion and to raise their public relations profile.

Newham regarded its model as providing a more sustainable approach in that it allowed a larger number of Zones to be supported with a given level of fuel company sponsorship. It does not consider fuel companies need to provide leadership and considers local authorities represent one possible source for Director if carefully selected (although Newham Warm Zone benefits from a skilled LE manager performing the role of Communications Manager).

At the moment only 4 companies are involved in the Warm Zone initiative (Transco, npower, London Electricity and British Gas). Transco has stated that it is prepared to sponsor further Zones in Teeside (beyond Stockton and Redcar and Cleveland), if the Government is prepared to provide further funding. It is not clear whether other fuel companies intend to become involved should the initiative be rolled out or whether Government exhortation is going to be required.

With respect to companies with EEC commitments and not currently involved, it is possible that further sponsorship might come from TXU, Powergen, SWEB, Seaboard, Manweb Scottish Power

and Scottish and Southern²². This assumes that companies keen to maintain their original customer bases (with respect to their former Public Electricity Supplier areas) are most likely to offer sponsorship in the future.

It is also possible that Transco is in a particularly strong position to sponsor further Zones, given that it is now likely to have a larger promotions budget etc, following its merger with National Grid.

7.5.8 Comment

Warm Zones have benefited considerably from fuel company sponsorship and secondment of skilled staff. Companies are commended for the commitment they have given to the initiative, including support during difficult periods (for example, npower's continued commitment to the Northumberland and Hull Zones, following the company's takeover of Northern Electric and Yorkshire Electricity). However, sponsorship from fuel companies with EEC responsibilities limits Warm Zones from optimising the full range of anti-fuel poverty measures and compromises Zones' neutrality as envisaged in the original Warm Zone model. Sponsorship from companies without EEC responsibilities presents less of a problem.

Neutrality should be a fundamental principle of Warm Zones and Government should consider how to address this problem. If fuel company leadership is incompatible with neutrality, alternative forms of leadership should be investigated. A potential source of alternative leadership is local authorities, as discussed in the next section.

7.5.9 Recommendations – fuel company involvement

The Warm Zone pilots, and any future Warm Zones, should explore all EEC options, rather than those offered by the sponsoring energy company. Zones should attempt to broker the best possible scheme for the area in which they operate, regardless of supplier.

7.6 The role of local authorities

7.6.1 Introduction

There is almost universal agreement that Warm Zones will not work unless the relevant local authority is committed to the initiative. Commitment should ideally include the following elements:

- Strategic commitment from members and senior officers
- Operational commitment from, for example, housing officers, building maintenance staff
- The existence of an up-to-date property database
- Willingness to integrate certain local authority functions with those of the Warm Zone, including, ideally, public sector energy efficiency programmes
- The existence of an affordable warmth strategy or equivalent (e.g. inclusion of an affordable warmth element within a wider strategy, such as anti-poverty, Community Plan or housing)
- Commitment of financial resources
- Involvement of staff working in related areas to affordable warmth, e.g. welfare rights, regeneration, Environmental Health, Trading Standards, social workers and other care staff

The following outlines the evaluation of the current role local authorities are playing in Warm Zones' work. This is based on interviews with Partnership Committee members, Zone Directors and documentary analysis.

7.6.2 Stockton Borough Council

Stockton MBC is more extensively involved in the Warm Zone than any other local authority. This, in part, results from the pre-existing relationship between the Council and Transco. The Warm Zone is responsible for a number of mainstream local authority activities, e.g. HECA reporting, maintenance of property database and oversight of the Housing Department's energy efficiency

²² However, Scottish and Southern are supporting the Dundee Community Energy Partnership, which is adopting a similar approach to the English Warm Zones.

programme (public housing stock was recently transferred to an 'arms length' company). The Warm Zone is now in charge of a £12.5 million capital programme over its 3 year lifespan.

The Warm Zone Director sends monthly reports to the Chief Executive, Housing Director and Health Partnership, as well as holding regular meetings with these officers. The councillor with lead responsibility for housing and community safety sits on Stockton's Partnership Committee and a number of ward councillors have actively supported the Warm Zone's marketing efforts within the current 'active' wards.

The Warm Zone helped set up the Local Strategic Partnership's Environmental Partnership and also reports regularly to the Housing Partnership. However, the Warm Zone has had less success in accessing regeneration monies.

Good practice – integrating Community Plan and Warm Zone targets

Stockton BC's Community Plan makes reference to the Warm Zone's work and includes Warm Zone targets within the Community Plan's targets. The Community Plan plays a key role in setting the agenda for other Council strategies and plans. This helps ensure that the Warm Zone's objectives are embedded within the Council's overall objectives.

Stockton MBC had already produced an Affordable Warmth Strategy (reflecting its long tradition of fuel poverty abatement work) and has adapted this to reflect the Warm Zone's work. The Council has already taken responsibility for taking over the Comfort Zone, once the Warm Zone 3 year programme finishes.

The Warm Zone has negotiated increased funding for central heating in social housing through Transco's Affordable Warmth programme. The Council revised its heating replacement programme to reflect this. The Warm Zone also has 2 welfare rights workers seconded to the Social Services Department who are dedicated to working on Warm Zone cases.

Good practice – meeting the needs of fuel poor households ineligible for existing schemes

Stockton Borough Council is contributing match funds to BGT's EEC fund for private sector, fuel poor households that do not meet the priority group criteria.

7.6.3 Sandwell Borough Council

Sandwell MBC was initially less involved in the Zone, although relationships have improved more recently. The Council has seconded an officer to act as the Warm Zone's Research Manager and provided rent-free premises. Sandwell had already out-sourced data management responsibilities, regarding HECA, to Black Country EEAC. The Warm Zone has built upon this arrangement by contracting the EEAC to monitor progress on meeting targets.

Sandwell Warm Zone prioritised Warm Front work in the social housing sector within its first year of operations, to maximise the Warm Front contribution before eligibility ran out. The Warm Zone was able to get an extension to the social housing deadline and was very successful in the sheer number of measures implemented. The Council initially expressed concerns about the standard of work and literature/publicity material produced by EAGA and installers, although it did not give precise details of what these problems were. However, the Council did state that EAGA had subsequently addressed its concerns.

The Warm Zone recently negotiated a £1m pa insulation programme for social housing with npower in which Sandwell MBC and npower provide £½m each. The Director believes npower would be prepared to put in more funding, if Sandwell MBC were prepared to match it. However, lack of finance (or lack of Council priority for energy efficiency work) has constrained the programme to this level. The Director considers the Government should put more pressure on local authorities to prioritise energy efficiency work.

Good practice – local House Condition Surveys

All housing authorities are responsible for running regular house condition surveys. Sandwell Council is supporting the Warm Zone by supplying the results of its recent Private Sector House Conditions Survey, which includes SAP data. This will help the Warm Zone focus work within the private sector.

Sandwell MBC is also supporting the Warm Zone programme by taking referrals for benefits advice. The Warm Zone is unusual in not having to pay for this element and expects to get monitoring results from the impact of increased take-up. Npower is supporting this work by 'screening' Warm Zone cases through its in-house 'ferret'²³ system before passing them on to Sandwell's benefit advisers.

The Warm Zone has gradually increased its working relationship with Sandwell MBC's Housing Department – a process that has taken 2 years to develop. The Director considers that the Warm Zone was at a considerable disadvantage, when compared to Stockton, in that it did not have an existing relationship with the Council. Similarly, the Council considers that the Warm Zone should have spent 6 months prior to the Zone's formal start-up on partnership-building activity with relevant Council staff.

7.6.4 Newham Borough Council

Newham MBC originally took responsibility for leading the Warm Zone initiative in Newham, with London Electricity (LE) playing a supporting role. At the beginning of the programme, the Council seconded its HECA officer to work part time as Warm Zone Director, while continuing his responsibilities for HECA. This ostensibly should have meant that the Zone was more integrated into Council processes and structures than other Zones.

In reality, Stockton Warm Zone demonstrates greater integration with Council structures than Newham. Newham spent a large amount of the initial period attempting to make its desktop analysis approach work. This turned out to be a lot more problematic than originally envisaged and caused considerable delay in delivering measures. The original Director is now working on the desktop analysis alone – it is described as a "pilot within a pilot". A new Director was appointed to concentrate on delivery – however he is not tied to the Council's structure.

Newham Warm Zone is able to access the Council's databases much more easily than other Zones. Newham BC had already developed an extensive 'data warehouse' (an integrated resource of data and survey information). It was because of Newham's strengths on data management that the Warm Zone wanted to establish a desktop approach to assessment. It also means that HECA is integrated into the Warm Zone programme.

Good practice - accessing benefits data

Newham Warm Zone is unusual in having access to the Council's benefits databases (Council Tax Benefit and Housing Benefit). The Zone is using this facility to support its assessment task, since it provides the Zone with detailed and accurate income information on a substantial proportion of the fuel poor (but by no means all). Other Zones have faced hurdles because of data protection issues. Access to benefits data also allows Warm Zones, working in partnership with Councils, to run targeted take-up campaigns pertinent to Warm Front grants and possible eligible groups. Newham has yet to follow this course.

Unlike Stockton, Newham Warm Zone does not have responsibility for managing the Council's energy efficiency programmes. This reduces flexibility to offer gap funding or integrate the various energy efficiency programmes operating in the Borough. The Zone's Area Management approach prevents the 'full control' approach adopted by Stockton. The Warm Zone also does not appear to be integrated with the Council's Community Plan and other Council-led partnership initiatives, with the exception of regeneration initiatives.

²³ Npower developed the 'ferret' system as a computer-based tool that determines possible benefit eligibility through asking individuals trigger questions about their personal circumstances.

Good practice – leveraging in regeneration funds

Newham Warm Zone has had greater success in accessing regeneration programmes than other Zones. The Zone follows the Council's corporate strategy for regeneration with respect to prioritising areas for Warm Zone works and has successfully matched London Electricity's EEC funds against various regeneration programmes.

Newham has obtained £400,000 match funding from London Electricity's EEC programme. This was matched against £250k from Newham Council's insulation programme; £100k from SRB3 and £50k from Newham Council's additional capital fund. Further details are given in Section 7.6.3. LE is also committed to providing further match funding from EEC, as programmes are put forward.

LE is currently exploring the establishment of a joint CHP/DH scheme on an estate with Newham Council. However, because implementation of measures is still at an early stage, it is not yet possible to report on the likelihood of further joint initiatives. The Newham Warm Zone should aim to pull in EEC funding at a similar level to that achieved by Stockton in relation to BGT (or at least Sandwell and npower).

7.6.5 Northumberland County Council and District Councils

Northumberland Warm Zone is involved with 7 local authorities – 6 first tier district authorities (with housing responsibilities) and 1 second tier county authority (without housing responsibilities). All 7 local authorities are represented on the Warm Zone's Partnership Committee and each contributes £6,000 per year to the Warm Zone's costs. Blythe Valley also contributed office premises.

The Warm Zone has a considerable task in working with such a range of local authorities. Commitment from the different authorities varies considerably; for example, the level of seniority of officer delegated to the Partnership Committee differs.

Blythe Valley Council is most committed, not surprisingly given its recent award of Beacon Council status for fuel poverty work. Blythe Valley had already prepared an affordable warmth strategy (before the Warm Zone) and had integrated this with its Community Plan. Other Councils had hardly acknowledged fuel poverty as an issue for concern. The Warm Zone aims to work in all local authority areas, for political expediency. If it prioritised the 'worst' wards first, this would have skewed most of the initial work to only 2 local authority areas.

The Warm Zone has little influence over social housing programmes, for example the Zone has not been able to negotiate a common approach to accessing EEC funds between the authorities. The Zone has not been able to 'broker' a strategic partnership approach with the different authorities. It is striking, for example, that the EST local authority support programme in Cornwall prioritised partnership-building in its initial work programme. The Zone was not able to do this, in part because of external pressures for early start-up.

There are specific examples of integrated work between the Warm Zone and different Councils. For example, the Warm Zone is exploring matching Blythe Valley's capital programme expenditure on loft insulation and double glazing with funding from regeneration programmes. Northumberland County Council has also contributed to the funding of a welfare rights worker who deals with Warm Zone case work.

Good practice – providing welfare rights advice to Warm Zone clients

Both Northumberland and Stockton Warm Zones have successfully negotiated an arrangement with their respective Councils to provide dedicated welfare rights officers for Warm Zone clients. The workers are attached to existing welfare rights teams so that they can access existing resources. Northumberland Warm Zone secured part funding from Northern Rock Building Society for its welfare rights provision. Stockton secured part funding from the Staples Trust.

7.6.6 Comment

Stockton demonstrates that it is possible to achieve a high degree of integration between the Warm Zone and Council programmes, without the Director necessarily being a Council appointee/seconded. Nevertheless, there are a number of unusual circumstances that allowed this:

- Stockton MBC had a pre-existing relationship with the Warm Zone Director whilst working within Transco that gave the Council the confidence to pass over control of its energy efficiency programme to the Warm Zone;
- the Council had already established a detailed Affordable Warmth Strategy that could be readily adapted to allow the zoned approach; and
- the Warm Zone negotiated a significant input from BGT at an early stage in its work that meant the Warm Zone could use this to strengthen its case for control over Stockton MBC's energy efficiency programme.

It is suspected that many local authorities will be reluctant to relinquish control over their energy efficiency programmes to Warm Zones. In part this is because of the importance of programmes to other strategic objectives, e.g. housing, regeneration, anti-poverty, LA21, HECA. In part, Zone Directors may be considered 'unknown', meaning authorities are unwilling to relinquish control. A number of Zones also report data protection issues that prevent Zones from accessing, for example, benefit records held by the Council.

Newham Warm Zone demonstrates other advantages to integration with the local authority structures. It has access to the Council's data warehouse, including benefits data, and is the most successful Zone with respect to leveraging in regeneration funds.

Northumberland Warm Zone's experience of working with a range of Councils illustrates the importance of prior partnership building before a Warm Zone becomes operational. In Northumberland's case, a critical process was omitted with respect to agreeing a common framework and objectives with the different Councils. It is notable that EST's LASP projects, as well as Gloucestershire and Wiltshire's Affordable Warmth Strategies, prioritised partnership-building as an essential pre-requisite before agreeing respective joint strategies.

All Warm Zones have stressed that Zone success is critically dependent on local authority involvement from the outset. Zones must develop this partnership before they launch into implementation of programmes. Most of the pilots did not pay sufficient attention to building these relationships, mainly because of time constraints. Northumberland Warm Zone was also constrained by lack of fuel abatement poverty activity and understanding by several of the district Councils. It is clear that any future Zones should focus on those authorities that have a clear understanding and commitment to combating fuel poverty.

7.6.7 Piloting a local authority-led Warm Zone

Section 7.5 discussed some of the difficulties arising from fuel company leadership of Warm Zones. Local authorities provide an obvious alternative option. Possible advantages include:

- Authorities are neutral agents that do not have any commercial interests that may compromise the Warm Zone approach
- They already have responsibilities for HECA and strategic decision-making on housing within their local area
- Many also manage housing stock (where housing is still under direct control), although there is a danger this can compromise their willingness to manage programmes in the private sector
- Authorities have considerable experience of forging partnerships and partnership working in the local area although staff must have the appropriate seniority and experience
- They will often have detailed knowledge of the local community, housing problems and wider social, economic and environmental issues
- They play a key role in regeneration programmes and are therefore in an ideal position to harness regeneration monies towards matching EEC and Warm Front expenditure and towards meeting anti-fuel poverty targets in general.

- They are also able to integrate Warm Zone objectives with related objectives, many of which they have direct responsibility for, e.g. 'health for all'/public health, economic development, housing improvement, social inclusion, community development, protection of 'vulnerable' households.

There are also potential disadvantages:

- Local authorities often do not have the same business skills as private sector managers
- Anti-fuel poverty programmes risk being 'diluted' by competing political priorities
- The quality of local leadership provided by authorities varies considerably
- Authorities may not delegate a senior enough officer to perform the role of Zone Director
- The degree of commitment to energy efficiency and anti-fuel poverty varies considerably
- Decision-making can be very slow (in part because of the democratic processes that underpin local authorities)
- Some authorities have not embraced partnership-working
- Some authorities suffer problems of poor management, decision-making and corporate working and have a record of poor programme delivery.

The Newham WZ pilot was originally intended to 'test' a local authority led approach to Warm Zones. However, the pilot did not fulfil this for a number of reasons. These included:

- It failed to secure a suitably senior manager from within the local authority as Zone Director;
- considerable expenditure of effort was spent on developing an untried method of assessment, rather than programme delivery, partnership building etc; and
- the Zone is closely linked to London Electricity through sponsorship and secondment of a senior energy company employee.

The Warm Zone is now taking a more conventional approach to assessment and concentrating on delivery. However, the new Director is not a Newham BC employee and the Zone cannot be considered truly local authority-led, in the sense that it is embedded within the Council's structures. LE's sponsorship of the Zone also means that it is only accessing LE's EEC funds.

There is a strong case for establishing another local authority-led pilot Warm Zone. This would have the aim of testing the potential advantages and disadvantages of local authority leadership. The Director should ideally have regeneration, funding and partnership-building experience. He or she should be a senior officer within the authority and receive support from the Council's management team and senior councillors. The Zone should receive the same support from both the central team and Central Government as the original pilots. There would be advantages in securing Transco sponsorship, given its 'EEC neutrality'.

The Zone should have discretion to broker EEC deals with companies and offer tariff advice to fuel poor householders as part of its overall service. The Zone would therefore be able to 'test' whether Zones can negotiate more favourable deals than the standard EEC packages on offer, e.g. because of the Zone's ability to offer assessment data and a management structure for 'fast-tracking' the implementation of programmes.

A local authority-led Zone should prioritise partnership-building, particularly by linking in with existing partnership initiatives, in the initial set-up period. It should also have control over the Council's energy efficiency programmes, so that it can lever in match funding from other funding sources and identify possible 'gap funding' opportunities. However, careful thought should be given to the appropriate location of the Zone within the Council's structure. It may be more appropriate, for example, to locate it within a central corporate department, rather than Housing, given the Zone's wide-ranging objectives.

7.7 Recommendations – local authority involvement

Any future Warm Zones should prioritise building a close partnership with the relevant local authority in the early set-up period. In the case of 2 tier or joint local authority partnerships, this stage should include agreeing common frameworks and objectives. The partnership should operate at both a strategic and operational level and the commitment of key staff secured from the outset. The EST's Local Authority Support Programme can provide valuable lessons in partnership-building, as can Gloucestershire and Wiltshire's Affordable Warmth Strategies.

Warm Zones should attempt to integrate key Council functions with its work, e.g. HECA, property database management. Warm Zones should be able to access the Council's Benefits database or alternatively develop a system whereby the Council accesses the database on Warm Zones' behalf. The Council should already have a record of, and strong commitment to, anti-fuel poverty activity.

Ideally, Warm Zones should have management responsibility for the Council's own energy efficiency programme. Zones should also attempt to secure Council commitment to fund measures for other housing sectors. Warm Zones and local authorities should work in partnership to access regeneration programmes to maximise the impact of EEC programmes, provide gap funding for fuel poor households not eligible for mainstream programmes and fund energy efficiency measures for hard-to-treat housing.

A local authority-led Warm Zone pilot should be established with the aim of testing the potential for Warm Zones to 'broker' advantageous EEC deals for the local area. The Zone should also make arrangements to proactively offer tariff advice to Zone clients.

8 ENGAGEMENT WITH THE WIDER COMMUNITY

Warm Zones are engaging with their local community through a variety of mechanisms. These include marketing, community outreach, involving the community in pre-assessment and input from local Partnership Committees.

Marketing activity is generally innovative and effective, although only Northumberland is producing material targeted at specific groups. A good profile at district level helps improve local profile and assessment response rates. By using a systematic clustered approach, Zones increase the likelihood of spreading the energy efficiency/ fuel poverty abatement message by word of mouth. This remains an important source of information for many people.

Zones are still not making sufficient use of voluntary and community agencies in identifying households with particular needs prior to assessment, although improvements have been made over the past 6 months (e.g. Stockton's use of community facilitators in a ward with a high minority ethnic population). Zones should investigate best practice from elsewhere.

A community evaluation of Warm Zones suggests that Zones could improve community and voluntary organisation involvement in the initiative and that many organisations would welcome involvement. There is some evidence that current take-up rates are related to the level of community engagement within Zones. Greater engagement may therefore improve assessment and take-up rates considerably.

Zones could do more to **empower** beneficiaries as part of their work, for example lack of feedback on referrals damages relationships. Zones should work with other organisations to support **community capacity building** as a means of securing greater engagement of the voluntary and community sectors in the Warm Zone initiative. Lack of **client follow up** reduces Zone effectiveness with respect to providing feedback. Zones should undertake this as a matter of priority.

Partnership Committees are working well and are welcomed by participants. They have made a number of valuable contributions to the Warm Zone task, reflecting local circumstances. However, they could do more to engage grass roots organisations. A considerable amount of **partnership working** occurs outside the remit of Committees through ad hoc and informal arrangements.

8.1 Introduction

Warm Zones are uniquely placed to engage with their local community as part of their overall work. Community engagement has long been a major theme in anti-poverty and regeneration programmes. Indeed, the Government recommends this as good practice in its neighbourhood renewal strategy (Social Exclusion Unit, 2000). Community engagement is thought to increase citizens' rights, improve decision-making and lead to more effective programme delivery. However, it is not an easy task. For example, community capacity varies considerably and issues often arise relating to individual organisation's accountability and representativeness.

Community engagement has not featured strongly in fuel poverty abatement practice in recent years, partly because mainstream energy efficiency programmes are mostly national in nature (e.g. Warm Front, EEC) and partly that programme deliverers tend to regard the issue as one that mainly requires a technical solution, i.e. energy efficiency measures. Warm Zones are unusual in that they provide a clear local focus for fuel poverty abatement activity and provide a structure with which local community and voluntary organisations can engage. While Zones' main focus of attention is on delivering major programmes that will enable them to hit targets, they are working with the community in a variety of ways.

This section assesses Zones' engagement with their wider communities. It considers how Zones engage with local communities, including community and voluntary organisations. It also considers how Zones engage with their local partners, principally through the local Partnership Committees established by Zones. Local authorities are regarded as an integral part of the Warm Zone approach and are therefore discussed in the section on Warm Zone structures (see 7.6).

This section draws upon a community evaluation, interviews with Directors, a 'partnership evaluation' and documentary evidence.

8.2 Marketing

8.2.1 Publicity

Warm Zones are producing a wide variety of innovative publicity material. This plays an important role in promoting general awareness of the Warm Zone approach. All Zones produce an introductory letter that is posted through letter boxes prior to assessment visits. The letter includes the list of partners, and Council endorsement is particularly important. It is interesting to note that the community evaluation found that many organisations reported that clients did not recall receiving the leaflets. Organisations were also dubious about the value of leaflets for publicising awareness of the Zones (or at least reliance upon leaflets alone).

Local authorities have sometimes assisted with the distribution of letters, although Hull found that the use of brown envelopes caused problems due to their association with bills. Warm Zones are also producing 'leave behind' leaflets after a successful assessment visit. This plays a useful role in reminding householders of the next stages in the process.

Good practice – publicity targeted at specific groups

Northumberland Warm Zone worked with Northumberland Association for the Blind (NAB) in producing large print leaflets for the visually impaired, together with a 5 page version of the Assessment form. NAB included the leaflets in its March mail-out to 2000 households. The Zone has also prepared an audio version of the form for the totally blind.

Northumberland has also promoted a 'Boys in Blue' campaign that highlights the fact assessors are independent and can be trusted. This has used promotional boards and leaflets as part of the campaign. However, Northumberland later found that Provident Finance collectors wore similar colour uniforms and suspect this may have reduced response rates.

While a lot of marketing effort is focused on wards/areas in which the Warm Zones are about to start work, Warm Zones have found that the overall profile of Zones within the area helps considerably with ensuring good response rates to assessment visits. Newham has recently revised its marketing strategy to increase the Warm Zone profile at borough level, while Stockton now considers its local profile more than adequate (see box below). The Warm Zone brand is now so widely recognised in Stockton that it gets a lot of enquiries about general problems and requests for works in advance of the rolling programme. It is possible that Stockton's high local profile is in part responsible for the Stockton's high assessment response rate.

Good practice – innovative marketing in Stockton

Borough-wide

Stockton Warm Zone produces a weekly column in the local newspaper. It has also produced a high quality brochure featuring a 'stereotypical' real life beneficiary of the Warm Zone programme and has sponsored a 'Warm Zone' roundabout.

Ward level

Marketing activity at the local, ward level (prior to assessment) includes the use of a mobile display unit and delivery of a cardboard glove through doors.

Both Sandwell and Stockton get regular coverage of activities in the local radio and newspapers. They also have regular features in Council newsletters (distributed to every door) or specialised publications, such as regeneration newsletters.

8.2.2 Warm Zone and Warm Front branding

All energy efficiency work is branded 'Warm Zone' in Stockton, apart from Affordable Warmth training sessions npower runs for local health workers. Sandwell considered doing this but decided it would be too difficult to organise. Other than Stockton, Zones see their role as

facilitating access to Warm Front and other programmes. Thus Warm Zones and Warm Front maintain separate identities, although Warm Zone offices often receive complaints or queries from people going through the Warm Front process.

All Zones found that people confused Warm Zones and Warm Front.

Good practice – publicity partnership

Newham Warm Zone worked with Newham BC's Communications Team in designing Newham Warm Zone's general publicity leaflet. The leaflet uses Warm Zone colours to promote the Warm Zone 'brand' while clearly illustrating Council endorsement of the Zone.

8.2.3 Recommendations – marketing

Much of the pilots' marketing shows real innovation and flair. However, following Northumberland's example, Zones should produce materials targeted at specific low income groups, e.g. minority ethnic groups, older people, disabled people.

Zones should recognise that for many people, written literature will only have a limited impact. It is therefore important to complement this with more direct forms of contact, such as face to face meetings, presentations to groups and use of radio broadcasts.

8.3 The community evaluation

The community sector is a key partner within the Warm Zone initiative. The external evaluation posed the hypothesis that active engagement of voluntary and community organisations²⁴ would help Warm Zones meet their targets and improve the delivery of programmes. The external evaluation therefore paid particular attention to assessing the extent of community involvement in Warm Zones and the benefits this may bring. Icarus, a specialist not-for-profit community evaluation consultancy worked on the evaluation of these issues.

The community evaluation consists of two phases. Phase 1, was completed in summer 2002 and consisted of telephone interviews in two neighbourhoods in each of 4 Warm Zones: Stockton, Newham, Sandwell and Northumberland. Hull was not selected because of the late start-up of its programme. One neighbourhood included the most recent area in which works were carried out and the other covered an area in which Warm Zone activity was planned to commence in the near future. Icarus focused on 'grass roots' community and local voluntary sector organisations that represented or worked closely with groups in fuel poverty, e.g. local tenants and residents associations, Age Concern offices and CABx. Interviews with groups in Northumberland also focused on issues relating to the rural nature of the Warm Zone. Due to difficulties in contacting organisations, only 41 interviews were conducted, however the community evaluation makes a number of useful insights.

A full account of the methodology used for the community evaluation is given in Appendix 6. The full results of the first phase of the evaluation are available as a separate report (contact EST for copies). Phase 2 has yet to take place but plans to engage in more intensive focus group activity.

8.3.1 Community outreach

Current practice in Warm Zones

Warm Zones stressed the importance of community outreach activities prior to teams of assessors moving into an area. This typically consists of the Warm Zone giving talks and presentations to local groups and councillors or 'piggy-backing' existing events. Stockton reported that the local

²⁴ Community groups are local groups or organisations, which include a substantial element of activity and control by local residents in a voluntary capacity. These may or may not be formally constituted. Voluntary organisations are groups whose activities are carried out other than for profit, which are not public or local authorities. These will normally be formally constituted e.g. as a charity or a company. (From *Guidance to the Community involvement Aspect of the SRB Challenge Fund/CDF*, CDF 1995)

community infrastructure appeared much smaller than originally anticipated, whereas Sandwell and Newham reported that they faced difficulties identifying the most relevant groups to target.

Good practice – working with minority ethnic groups

Sandwell Warm Zone worked with the Sandwell Ethnic Minority Umbrella Forum on a housing conference in which local residents were informed of the benefits of the Warm Zone approach.

Good practice – innovative promotion of Warm Zone activity

Newham uses a community bus to publicise the fact that assessment teams are about to start work in the area. Staff on the bus provide information about the Warm Zone approach.

Sandwell reported that the most powerful means of marketing Warm Zone activities was through ‘word of mouth’. As the programme progressed, more and more people knew of others who had had work done. This helped increase the Warm Zone’s profile and led to improved response rates. It is well established that ‘word of mouth’ is in general the most effective means of promoting awareness, whatever the issue. Sandwell’s experience suggests a valuable advantage to the zoned approach, i.e. that word of mouth activity and peer group promotion is much more likely when activity is concentrated within a small geographical area.

This effect is likely to be less pronounced in Northumberland, due to its large geographical area and the dispersed nature of much of its population. It might partly account for the lower assessment response rate experienced in Northumberland, although the Zone believes that bad weather and fuel company doorstep sales activity also contributed; see Section 9.1.

Perspective of voluntary and community organisations

The community evaluation made a number of comments about the Warm Zones’ effectiveness in engaging voluntary and community organisations in community outreach activities at the pre-assessment stage. While the sample of organisations interviewed was fairly small (20 organisations working in areas about to be ‘Warm Zoned’), the information provided is useful.

19 of the 20 organisations indicated that the Warm Zone had not directly contacted them. Yet with just one exception all indicated willingness by their group/organisation to support the programme. They welcomed the opportunity to discuss this further with the Warm Zone team as early as possible.

There were three main areas where community and voluntary organisations thought their contribution would be valuable at the pre-assessment stage:

1. Providing access to information – using their knowledge of local groups, local people and local needs to direct the Warm Zone team appropriately.
2. Providing access to hard to reach communities and individuals, e.g. by providing translation support, accompanying assessors to older residents’ houses, and reassuring vulnerable groups through informal networks.
3. Information distribution, e.g. by using community premises to promote the programme, providing opportunities for the Warm Zone team to meet with and talk to their members, promoting Warm Zone within community newsletters or personally distributing leaflets and information.

Several organisations in Sandwell reported difficulties in using material that stated ‘alleviating fuel poverty’, particularly with the Indian community. They reported that it is culturally frowned upon to acknowledge being in financial difficulties in the community. This could equally apply to other communities: several organisations pointed out that people might not know they were in fuel poverty:

“Poverty’ as a label creates barriers – people don’t want to think of themselves as in poverty”

8.3.2 Engaging voluntary and caring agencies in the assessment process

Current practice in Warm Zones

The Warm Zone central team promoted the importance of working with voluntary, community and caring agencies in identifying vulnerable households, prior to the assessment visit. It was felt that agencies could help improve access and provide assistance during the assessment visit. It is important to note that caring agencies include statutory bodies, such as Social Service workers, as well as voluntary and community organisations. Warm Zones have only developed this approach to a limited extent. It is worth noting, however, that this still represents an improvement from the first six months of operation.

Hull Warm Zone has started to approach Age Concern, CAB and disability organisations to identify households requiring priority intervention. Newham Warm Zone did not consider it worthwhile to approach agencies to undertake this role. The Director considered this element of the Warm Zone model 'naïve' in that caring agencies have other, more pressing priorities and are generally over-worked.

Good practice – working with health care workers

Northumberland Warm Zone is piloting an innovative partnership with the Social Services Department. Health and care workers operate an appointment-based scheme to assess 'vulnerable' households, e.g. the house-bound. The response rate was very good in the urban pilot and very poor in the rural pilot. No reason has been identified for this difference, other than possible differences in the level of interest shown by supervisory staff.

Good practice – working with minority ethnic groups

Stockton Warm Zone worked with local community leaders to engage community group facilitators in the assessment process. The facilitators accompanied assessors in an area of Stockton with a large minority ethnic community. They helped increase the response rate because they were known and trusted by local people. They also provided translations, if required, although this was secondary to their main role.

Perspective of voluntary and community organisations

The community evaluation revealed considerable concern about the assessment process from organisations interviewed. Many interviewees felt that a considerable number of vulnerable households would be missed because of reluctance to open their doors to strangers. There were many suggestions about how the response rate could be improved. These included:

- Ensuring people were fully informed about Warm Zone and what to expect before the doorstep assessment began. It was widely felt that leafleting alone was not sufficient to guarantee this.
- Making sure that the Warm Zone identity was sufficiently distinct from that of the sponsoring energy company, otherwise households would be suspicious that assessors were trying to persuade them to change supplier.
- Providing vulnerable households, such as older and disabled people, with a safe and public place to meet with the assessors.
- Ensuring that the assessment team was culturally appropriate, i.e. gender, ethnicity and language skills were taken into account.

The perspective of black and minority ethnic organisations in Sandwell

Organisations in Sandwell stressed the importance of raising awareness by word of mouth in these communities. Mixed male/female assessment teams were suggested – many Asian women would not answer the door to men. Assessment teams need to adopt different approaches that are sensitive to the wide range of cultures in Sandwell. If access to language support is limited, team members with Urdu or Hindi would be more appropriate than Punjabi, as these are 'more neutral, more universal' languages that most people will understand.

8.3.3 Engaging voluntary and caring agencies in the delivery of measures

Current practice in Warm Zones

Warm Zones have carried out relatively little activity to obtain feedback on the delivery of measures, beyond the standard Warm Front and EEC quality control systems. Warm Zones have reported some anecdotal material, such as the importance of 'word of mouth' and some feedback is given collectively via the Zones' Partnership Committees. Nevertheless, Warm Zones should use a more systematic approach for obtaining client feedback. The case has been made to Warm Zones from the very outset of the evaluation but Zones have yet to address the recommendation even though the cost should be relatively modest. Client follow-up would provide the following opportunities:

- test the relative satisfaction and perceived impact of different measures packages
- check on the general increase of energy awareness and knowledge in Zones
- assess incidence of client problems (such as delays, or issues around quality) and their ease of resolution
- collect information on Zone profile, "brand recognition" and so on
- investigate reasons for withdrawal
- check on the stability of fuel poverty status via changes in household circumstances
- gather feedback about the positives and negatives of the process, as experienced by clients
- check the accuracy of or, where necessary, substitute for returns from agencies carrying out work

These are issues also for the comparison zones; for example, one of the Warm Zones' hypotheses is that energy awareness and knowledge will be higher in Warm Zones.

A client follow up questionnaire (CFQ) has been developed for use by Warm Zones. Only Stockton considered using the CFQ, but subsequently decided against, in part because other Zones did not wish to pursue this route. The survey was broadly designed to assess client experience of the Warm Zone process and was intended to be used for clients at different stages of intervention, e.g. assessment, survey, waiting for measures, measures implementation. Many questions are standard and have used in similar evaluations²⁵.

Perspective of voluntary and community organisations

The community evaluation obtained feedback from a number of organisations about the delivery of measures (21 organisations based in 'Warm Zoned' areas were interviewed).

Those able to comment on the Warm Zone operation were generally very positive (see quote below). Organisations commented on the efficiency of the assessment process, the professional conduct of staff and satisfaction amongst residents with the work undertaken. However, organisations felt that information provision could be improved:

- Following the assessment process, information was confusing or partial, leaving residents uncertain about when work would be carried out and what preparations they would need to make.
- Discontent was expressed because 'fuel-rich' residents were not given information about how they could conserve energy use.
- The provision of information at an earlier stage – organisations would have welcomed regular updates throughout implementation of the Warm Zone programme within their area.
- Promotion of other services in the area that combat poverty in general, e.g. promotion of local credit unions.

One organisation (in Stockton) reported that some older clients were unhappy about having to move furniture on their own and that one household reported accidental damage by a central

²⁵ The 'heating satisfaction' question is used by Sheffield Hallam in the Warm Front Health Impact Assessment, and by NEA in the Warm Homes Project. It was found to have a strong correlation with actual indoor temperatures.

heating installer. One organisation (in Northumberland) spoke very positively about the Warm Zone's appointment of a benefit officer.

Quote from community organisation in Sandwell

"Once put in, it's wonderful. They haven't got to worry about switching immersion heaters on. It's instant."

8.3.4 Comment

The community evaluation suggests that Warm Zones are making some efforts to engage voluntary and community organisations in their work. It suggests that Stockton is making most effort, despite having a relatively weak community infrastructure. Sandwell is also doing well, although its task is much harder due to the sheer diversity of communities in Sandwell. There is some evidence that assessment response rates are partly related to the level of community engagement but this is not conclusive. This is supported by evidence from the pilot Armagh/Dungannon project in Northern Ireland. The pilot found that by undertaking extensive community development, take-up reached almost 100%.

Despite Newham's misgivings, the original Warm Zone concept of involving community and caring agencies in identifying specific households prior to assessment is considered to be sound. However, more work is needed to develop best practice. A number of local authorities, working in partnership with voluntary and community agencies, have developed good practice models for working with vulnerable (and often 'hard to reach') households.

Zones are undermining their full potential effectiveness through failing to conduct consumer follow-up surveys along the lines suggested.

The community evaluation suggests that Warm Zones are not mobilising community resources to the fullest extent. As well as having practical benefits, such as improving assessment response rates, greater community involvement can help improve the overall Warm Zones process. It might also have a positive impact on health, in that feelings of control are an important factor in health status. In this sense, the lack of feedback on progress of referrals can undermine aspects of Warm Zones' generally positive impact.

Warm Zones are no doubt constrained, both by resources and time, in their ability to involve community organisations, particularly in areas where community capacity is limited. Nevertheless, Zones should prioritise community engagement activities, including working with and support for other partners' capacity-building²⁶ activities. This type of activity can have a positive impact on assessment success rates and it is vital Zones improve these to ensure they meet their objectives. Zones should allocate resources for this type of work. This might even take the form of setting aside a budget for meeting community-defined priorities. This could be a more cost effective strategy than potentially expensive repeat assessment visits to 'mop up' outstanding households.

8.3.5 Recommendations – engaging voluntary and community organisations

Warm Zones should take note of the detailed comments in the community evaluation and take steps to address the issues raised (all Zones have received copies of the evaluation). Specifically, Zones should organise an event, similar to the 'data standards day' held earlier this year, with the aim of developing good practice on engaging voluntary and community organisations in their work. Particular attention should be paid to the provision of information, for example feedback on referrals and general progress in targeted areas.

Zones should monitor the extent of referrals they receive from voluntary, community and caring agencies at the pre-assessment stage. Zones should work with other regeneration or community initiatives in supporting community capacity-building so that community and voluntary

²⁶ Community capacity building describes a process by which community groups are trained and organisationally developed in order that they can play an active and effective role in local activity, particularly partnership working.

organisations are able to engage effectively with Warm Zones. Zones should allocate resources for this type of work, particularly given the positive impact it is likely to have on assessment response rates. In the longer term, Zones should set aside a budget for meeting community-defined priorities.

Zones should carry out client follow-up surveys that are more extensive than the standard EEC or Warm Front follow-up surveys. Surveys should include a set of standardised questions, outlined above.

8.4 The partnership evaluation

Building partnerships is a stated objective and fundamental principle of the Warm Zone approach. The development of effective local partnerships is key for Zones to meet their objectives. Zones have attempted to formalise the notion of local partnerships by establishing Partnership Committees (PC) to bring together representatives from local authorities, fuel companies, RSLs, voluntary and community sectors, health bodies and others. PCs provide an advisory rather than decision-making role. Members of PCs are asked to sign a Partnership Agreement, which is typically discussed and amended at the inaugural meeting of the PC, setting out the terms of reference and responsibilities of individual members.

A considerable amount of partnership working takes place through informal and ad hoc working relationships outside of the remit of PCs, although the end results of this work are reported to PCs. In certain situations partnership working becomes a more formalised arrangement in which the Zone agrees a contract with certain partners, e.g. local installers, EEACs, data management organisations. Evaluation working outside of PCs will be included in later reports. The rest of this section focuses on the PCs themselves.

A structured interview process with members of the Zones' PCs was used to evaluate the strength of partnership working within four of the Zones²⁷. Hull Warm Zone had yet to establish its PC and Northumberland's PC had only met once. Questions related to the functioning of the PC and members' perspective on the Warm Zone initiative as a whole. The following summarises the findings.

8.4.1 Establishments of Partnership Committees

Most members of PCs had a clear idea of why they were invited to become members of PCs and regarded themselves as the appropriate representative from their organisation. Only a couple of members felt that more senior representatives from their organisation (local authorities in both cases) would have been more appropriate.

Most members clearly understood the aims and objectives of Warm Zones and the PC role within this. While there was almost universal agreement about the desirability of the objectives, there was little discussion about whether the Warm Zone approach represented the best method for combating fuel poverty and many commented that this was taken for granted. There was strong agreement that the approach appeared very sensible. Doubts that were raised include:

- Not convinced about cost effectiveness (managing agent)
- conflicts of interest relating to fuel company leadership (BGT)
- sceptical about feasibility of rolling out programme on large scale (NGO)
- Warm Zones should have been given more flexibility to alter standard Warm Front packages (RSL)

All members of PCs were very satisfied with the preparatory activities undertaken to make sure PCs functioned properly, for example areas of common ground and potential conflict were discussed and openly addressed. Membership of the PC was also discussed and extended where the consensus felt this would add value (e.g. Stockton PC decided to invite police and community representatives onto the PC). A number of representatives felt that the Warm Zones should have

²⁷ 27 PC members were interviewed representing 82% of the total PC membership within all Zones.

spent more preparatory time on setting up partnerships, particularly with key local authority staff. Many stressed the importance of this should future Zones be set up.

Most PC members reported back on Warm Zone activities to their organisation. Some felt they were able to contribute expertise on a particular issue, e.g. health, older people or minority ethnic communities. Others saw their role as one of formally representing a key partner, typically the local authority. PC members felt particularly useful when they were able to inform Warm Zone practice, for example appropriate ways of approaching older or minority ethnic households.

A considerable number of PC representatives saw their role as more passive, namely one of giving endorsement to the pre-determined Warm Zone programme. Many commented that they were very content with the programme and felt there was little to improve or change.

8.4.2 Structures, roles and remits of Partnership Committees

Most PC members felt that they were sufficiently senior within their organisation to make decisions and effectively represent the views of their organisation/constituency. A couple felt that they did not have the authority to make decisions on behalf of their organisation (both local authority) and one had expected her organisation to play a more active role in the Warm Zone programme (which did not happen). One member in Sandwell had suggested at a PC meeting that all energy efficiency programmes should be channelled through the Warm Zone, but was informed this approach was impractical (although this is exactly the approach that Stockton has adopted).

Most PC members felt that the composition of the PC was about right, although several felt that more community representatives could be included. Stockton and Northumberland PCs are the only PCs that involve EAGA and Northumberland PC is the only PC involving an installer. There was almost universal endorsement of the Chairs' conduct of meetings.

Most PC members felt that the level of powers given to PCs was about right, particularly given their pilot status. However, a number of PC delegates commented that PCs perhaps should have greater powers if the initiative is rolled out. In this context, they felt that local autonomy might become more of an issue.

PC members generally felt clear and supportive of the local Warm Zone structure. However, many felt much less clear about the national structure and the role of the central team and Board.

While some PCs gave the impression that their role was mainly one of endorsement, several gave concrete examples of where PCs had made a difference. Examples include:

- Design of a form for private landlords so that approval is given for works
- Help with securing funding for an extra welfare rights worker
- Advice that asylum seekers could be excluded from the assessment process because they do not pay fuel bills and Home Office guidelines stipulate very high energy efficiency standards.
- Advice on how to work with older people and minority ethnic households
- Improvements to the data collected on assessment forms
- Informing members of the local community about the Warm Zone's work
- Media publicity for the Warm Zone's work

Several Warm Zone Directors felt that PCs had played a more useful role than originally anticipated. PCs were considered valuable for raising local issues and problems and in suggesting improvements to programme delivery.

8.4.3 Partnership Committee Process

PC members were content with the running of PC meetings. There was general endorsement for the frequency and administration of meetings, advanced distribution of papers, degree of openness, level of participation, sense of purpose and usefulness. The general approach of PCs was to reach decisions by consensus, rather than through taking votes. One PC member felt that

there was insufficient discussion of issues and factors influencing progress. Several Northumberland PC members felt less able to comment on these issues, since the PC had only met once.

Some PC members with less direct responsibility for delivery issues felt that the level of communication between partners outside meetings was very limited. Others referred to email updates between meetings, which were welcomed (practice varies between PCs).

8.4.4 Internal evaluation of Partnership Committee activities

Several PCs were intending to carry out annual reviews of progress and most PCs have a regular short discussion on progress against Warm Zone targets. A number of members of other PCs referred to the lack of customer satisfaction surveys and felt that Warm Zones ought to commission these. PC members have been able to provide informal feedback in some cases.

8.4.5 Perspectives of Partnership Committee members on the Warm Zone approach

Warm Zone goals and objectives – Most PC members felt the Warm Zones' goals and objectives were either clear from the outset or became clearer as the programme progressed.

A number of improvements to the Warm Zone approach were suggested:

- More flexibility over measures on offer, including pre-Warm Front works
- Provision of security measures as part of packages offered
- Provision of training to increase supply of gas engineers
- Offer greater variety of central heating systems
- Increase funds to Northumberland to reflect the extra costs of working in rural areas
- Greater ability to pilot new initiatives, such as Solar Water Heating
- Extend the initiative to surrounding area (Sandwell)
- Improve communication and information flow between PC meetings`
- Involve beneficiaries/consumer representatives in PCs (many members made this comment, although several referred to the difficulties of doing this)
- Provide a gap fund for fuel poor who are not eligible for Warm Front or EEC
- Greater focus on energy inefficient housing, rather than residents
- Establish regional Boards in an expanded programme, rather than a national central Board

Warm Zone impact on members' work - A number of PC members referred to a number of benefits and changes their organisation had made as a result of involvement in Warm Zones:

- Raised issues relating to eligibility for Warm Front and EEC from Warm Zone results (NEA)
- Targeted EEC funds towards Warm Zone (fuel company)
- Reviewed Primary Care Trust (PCT) referral mechanisms – considers Warm Zones a more effective and systematic method of identifying households than relying on referrals from doctors or district nurses (Sandwell PCT)
- Obtained a clearer picture of some of the wider determinants of health and fed this back to PCT (Newham and Northumberland PCTs)
- PCT now provides welfare rights advice in recognition of wider determinants of health (Northumberland PCT)
- Looking at issues relating to boundaries between health and social care (Northumberland PCT)
- Provided money for welfare rights officers to work with Warm Zone (Stockton MBC)
- Overcame hesitancy over Transco's heat leasing scheme (Stockton MBC)
- Changed reporting systems to be more flexible to support Warm Zone. Now able to handle block referrals (EAGA)

Views on roll out - Most PC members felt that the Warm Zone initiative should be rolled out and represented an effective means of combating fuel poverty. Several expressed doubts about the cost effectiveness of Warm Zones and several stressed the importance of ensuring future Zones could adapt to local circumstances. A number reserved judgement – they wanted to see more

evidence of progress, evaluation of the effectiveness of the doorstep assessments and the results of the independent evaluation.

Several regarded Warm Zones as only appropriate for areas with high concentrations of fuel poverty. Several stressed the importance of the local authority already adopting an affordable warmth strategy.

8.4.6 Comment

Partnership Committees play a valuable role in supporting the Warm Zone work. Most PC representatives valued their participation in PC meetings. There are many examples in which Committee members have suggested improvements to the Warm Zone work within the local area. Committees have followed good practice with respect to building in mechanisms for effective partnership working and members generally feel that they benefit from participation.

Some local authorities have delegated relatively junior officers to Committees. This inhibits the local authority from playing an effective role in Warm Zone's work. PCs have also made insufficient effort to recruit community representatives, although this has improved since the first six months of operation. Stockton, for example, recently recruited a representative from Stockton Residents and Community Groups Association. Zones should recognise that support structures are required to ensure effective participation from community representatives.

PC members generally accepted the lack of decision-making powers; indeed most considered this appropriate, either because more powers would entail more work or because it would skew the pilot nature of the Zones. Considerably more PC members felt that PCs should have greater decision-making powers should the Warm Zone initiative be rolled out.

A common theme emerging from both PC interviews and interviews with other interested parties was the need for Warm Zones to engage in partnership building before work formally started. The local authority and fuel company were considered particularly important partners.

8.4.7 Recommendations – Partnership Committees

In the event of an expanded Warm Zone programme, future Zones should plan a significant element of partnership building at the early set-up stage. This should take place before Partnership Committees are formally established. It may also be appropriate to give PCs greater decision-making powers in an expanded programme, rather than the current PCs' advisory-only powers.

All partners on Partnership Committees should delegate representatives of a suitably senior level to ensure action is taken following PC meetings. Zones should make sure that both the voluntary and community sectors are represented on PCs and provide support structures as appropriate.

Warm Zones should send updates to PC members in between PC meetings as standard practice, although it is recognised that some Zones already do this.

9 PROCESSES AND INFORMATION

This section discusses Warm Zone processes, particularly assessment of fuel poverty, eligibility for energy efficiency schemes, integration of schemes, relations with scheme managing agents and informational processes.

Warm Zones' assessment procedures should be reviewed and validated, since their reliability and validity is currently unknown and error impossible to manage.

An affordable warmth model may be a more appropriate route for fuel poverty elimination in social housing.

Warm Zones are having little success in integrating schemes, apart from negotiating match funding between social housing programmes and EEC. However, the main problem lies with scheme design and rules.

Warm Zones have experienced difficulties with scheme managing agents, mainly because the latter's systems are not geared up to receiving bulk referrals from Zones. However, there are some recent signs of improvement.

A general need to improve reporting and feedback is identified. New Warm Zone guidelines on these issues are welcome. It is recognised that many of these problems are not under Warm Zone control. Adequate management information system provision is a key issue for Zones.

9.1 Assessment

9.1.1 Introduction

Assessment is the heart of the Warm Zones process. The results of assessment are the trigger for action, crucially whether the Fuel Poverty Index²⁸ stands at 10% or above. Other elements trigger referral for energy efficiency schemes and for soft measures. Assessment data is also an invaluable resource for management allowing reports to be generated on patterns of fuel poverty, rates of progress and the extent to which different measures packages are alleviating fuel poverty and unmet need.

The assessment process has proved contentious in a number of ways. This section raises the key issues, some of which require urgent attention. They have implications not only for Warm Zone assessment, but eligibility for the tools (such as Warm Front) which Warm Zones use in their work.

9.1.2 Assessing fuel poverty

Assessment starts with the question "assessment of what", in other words, of eligibility for the scheme. The Warm Zone approach is unique²⁹ in assessing fuel poverty as the trigger for action, (although in most Zones little intervention will occur unless assessment of eligibility for other schemes based on benefits status, household type etc also proves positive). However, there are problems with this approach.

Households do not always give income information. Experience in the Zones shows that response on this item varies between <20% to >80%, although it can be greatly improved through training and the adoption of good practice. In some areas there have been serious problems with the income question. Sandwell also uses ward average incomes as a proxy for household income. This is a poor procedure except in sections of wards of the most concentrated deprivation³⁰.

²⁸ The Fuel Poverty Index (FPI) gives the percentage of income a household needs to spend to provide a sufficient level of warmth and access to energy services.

²⁹ Apart from the original Stockton Warm Homes Scheme that raised most of the essential issues several years ago.

³⁰ Research by Berthoud shows that income variation within wards is almost as great as variation between wards, and that this effect continues even down to much smaller geographical clusters, such as enumeration districts and groups of post codes. However, this will be less the case for wards with very high or low general levels of income.

Income data may not be accurate. The in-the-field fuel poverty assessment model rests on the transfer of a tool used for estimating fuel poverty in populations (where random error can be accommodated) to use at household level. There may also be consciously or unconsciously created systematic error on the part of clients. Furthermore, Warm Zones do not ask about savings, yet this may explain in certain cases non-eligibility for certain Benefits (and hence Warm Front/priority EEC). The procedure therefore requires systematic validation; this is a matter of urgency. This validation should encompass the process as well as the item itself. For example, sensitive questions are, in general, better asked inside the home than on the doorstep.

Energy audit data is subject to problems. Many of these have now been resolved. In general, Warm Zones energy audits are supposed to be at NHER enhanced level 0. However, they have taken little or no account of occupation pattern and tariff, although Northumberland is an exception. In some cases, floor area is not considered essential information. Inferred floor area values are used instead. This leads to major error in fuel cost information, although much less in assessment of SAP-rating. Information about loft insulation installed is sometimes not collected which leads to systematic error if software defaults are not set appropriately since SAP may be considerably underestimated if the basic age-related defaults are used. The new Warm Zones internal guidance should improve matters. Stockton updates property data at survey, but this does not prevent errors of mis-exclusion at the assessment stage, and undoubtedly many fuel poor households are being classified as not being in fuel poverty. Validation of the assessment tools would enable this error to be quantified and managed.

9.1.3 Assessment procedure

There are also issues around procedure. The “total control model”, in which assessors are part of the Zone workforce and imbued with its culture and ethos, leads to better results in terms of contact made, assessments carried out, and assessments completed with income details. Hull is confident that this can also be achieved under its service-managed approach, in which the sub-contractor is directly incentivised to produce fuel poverty assessments.

Experience in all Zones has shown that casual workforces lead to poorer practice. Good procedure regarding monitoring of assessors, applying knowledge of the most fruitful contact time etc is much harder to carry out effectively without direct control. Use of installer representatives is also less satisfactory because of the motivation to maximise referrals rather than necessarily to carry out assessments, although a back-up team for the less referral-rich areas may be a partial solution.

External factors may have a bearing too, for example the problem of fuel company sales staff in an area affecting assessment response rates (Northumberland and Sandwell – other areas do not appear to have had the same problem). Uniforms for staff, and the general profile of the Zone are all helpful here, although considerable spending on publicity generally is needed to reach the critical recognition point.

9.1.4 Affordable Warmth Model

Given these problems, some question whether fuel poverty assessment is the most useful vehicle for identifying and intervening in fuel poverty. Instead, an alternative ‘affordable warmth model’ is suggested. Essentially, this approach targets ‘vulnerable properties’, rather than ‘vulnerable households’. Properties receive sufficient energy efficiency investment to ensure that no household likely to be living in that property need suffer fuel poverty, regardless of their income. The only caveats are that the resident households are not significantly under-occupying the property and that they receive their full entitlement to benefits (for those on very low incomes).

The ‘affordable warmth model’ removes the need to define eligibility criteria as a means of selecting households who should receive grants. The model is described in greater detail in Appendix 2. The Warm Zone social housing partners should consider applying this model to their own stock. This could remove a substantial element of Warm Zones’ assessment task and lead to

a significant reduction in costs. The model is not suitable for private sector housing for the following reasons:

- there are many more older houses and flats where AWM levels of energy efficiency might be achievable only at extreme cost.
- there is greater income variation in the private sector
- homes are not allocated but chosen by householders for whom size of dwelling is only one among a number of criteria – indeed, householders often deliberately choose a home considerably larger than would be allocated to them by a social landlord.
- there is no mechanism (such as the Housing Corporation's minima for RSL property) for ensuring minimum standards in existing build.

9.1.5 Defining eligibility criteria

Most commentators agree on the desirability of bringing the entire housing stock up to the best feasible energy efficiency levels, a major precondition for preventing future fuel poverty. However, many of the households involved are perfectly able to afford such work themselves, through their higher incomes or savings (although many may consider the latter problematic in the case of pensioners). This suggests that grants for energy efficiency work need to be selective, at least within the private sector³¹. Eligibility criteria should therefore be designed to ensure that need is met when those in need do not have the means to meet it themselves.

The key questions for fuel poverty work are:

- Should eligibility be based on the **energy efficiency** of the home (e.g. low SAP rating, high fuel cost), the household's **means** (income, savings or benefits status), the household's degree of **susceptibility** (as in "vulnerable" households) or a **combination** (such as assessment of fuel poverty, involving fuel cost and income in combination, with additional criteria for vulnerability as a prioritisation)?
- Should different eligibilities give entitlement to different measures (e.g. should "hard to treat homes" or "vulnerable households" be eligible for larger spends)?
- Should eligibility be "stepped", for example by being no cost to the lowest incomes, no subsidy to the highest, and a discount for those on intermediate incomes?

In defining eligibility criteria for anti-fuel poverty grants, it is necessary to address the general issues of validity, reliability, practicability, equitability and outcome-efficiency. These principles are described in more detail in Appendix 2. The appendix also discusses the eligibility criteria for the current mainstream programmes coordinated by Zones (Warm Front and EEC) and poses the notion of a 'gold standard' for eligibility criteria, in terms of meeting the five principles. A possible model for devising a new set of eligibility criteria for anti-fuel poverty grants is presented. At least one Zone could be given the flexibility to experiment with these criteria.

9.1.6 Fuel poverty risk

All assessment processes are subject to error. Statisticians refer to "type 1 error" where the misdiagnosis results in cases being **mis-included** as positive (such as "in fuel poverty") when the reality is negative. "Type 2" error involves **mis-exclusion**, where a negative diagnosis ("not in fuel poverty") is given to a positive case³².

Concern was raised above about the reliability of Warm Zone assessments in the context of mis-exclusion error. It is important that Zones have a measure of the likely scale of possible inaccuracy in income information so that the risk of fuel poor households being defined as not fuel poor is minimised. This might mean, for example, that households assessed as needing to spend between 8 and 10% of income on fuel should also be classified as 'fuel poor'.

³¹ As opposed to universal, where all potential recipients are entitled regardless of means.

³² It is worth noting that these problems do not apply to the Affordable Warmth Model, which effectively reduces fuel poverty risk to zero. Income assessment error is also eliminated.

It was also argued that mis-inclusion error was less serious because many non-fuel poor scheme-eligible households were at risk in that relatively small changes in circumstances could easily propel them into fuel poverty. This logic would certainly apply to Warm Front, since reducing fuel poverty risk is an explicit objective of the scheme.

A further concern, related to the issue of reliability, is that a snapshot assessment of fuel poverty is meant to stand as a proxy for the household's fuel poverty status over a long period. In reality, 'churn' is a significant feature of fuel poverty, in that research suggests that a significant proportion of the fuel poor move into and out of fuel poverty over fairly short time periods (13% over a year). It is not intended that households undergo re-assessment every few months.

In this context, Stockton's policy of doing all feasible cost-effective measures for a fuel poor household diagnosed as in fuel poverty potentially offers a longer term solution. The Zone reasons that it is inappropriate to stop intervening simply because the household crosses below the 10% FPI threshold. Not only may there be mis-assessment (as their updates from survey data have sometimes shown), but the household's FPI may change anyway. In addition, long-term efficiency is better served by one major intervention than many minor ones. This policy is a step in the direction of the Affordable Warmth Model. However, the approach is harder to justify when resources are scarce.

Fuel poverty risk is further discussed in Appendix 2.

9.1.7 Recommendations – assessments

Research should be undertaken to validate the Warm Zones' fuel poverty assessment procedure, if necessary by the Government. Other agencies are likely to require a standardised system in the future, e.g. local authorities, managing agents. Validation should also review available energy rating software so that the software is able to produce accurate required fuel costs for individual properties.

Zones should adopt procedures for managing fuel poverty risk, so that the risk of fuel poor households being mis-diagnosed as 'fuel rich' is minimised (validation of assessment would help in this respect).

One or more of the Warm Zones should be given the flexibility to experiment with revised eligibility criteria for energy efficiency schemes. These should aim to optimise the 5 dimensions of eligibility criteria, namely validity, reliability, practicability, equitability and outcome efficiency. A possible model for discussion is presented in Appendix 2

Zones should make greater use of assessment data from fuel rich households, if only to pass on to other agencies that could promote schemes for this particular sector (e.g. discount schemes run under EEC programmes). They should ensure that all Data Protection issues are addressed before doing so.

Zones should consider the use of an affordable warmth model for social housing. If adopted by social housing partners, such an approach should be integrated with Decent Homes Plans and coordinated with any expanded Warm Zone programme.

9.2 Referral

In many ways referral is a straightforward process, particularly when the assessment process and decision procedures are operating smoothly. Problems beyond the referral stage are very difficult for Warm Zones to resolve by themselves.

It is worth making the point that referral-based systems outside the Warm Zone intervention model still have a major role to play, even in Warm Zones. There may be a temptation to try to bundle all intervention work into the area-by-area model, to maximise the scope for cost-efficiency. This should be resisted, since 3 years is a long time to wait for people in priority health need or

otherwise in fuel poverty crisis, for example through major failure of heating system and lack of access to either capital or credit.

Initiatives, such as Health through Warmth and Housing Improvement and Regeneration Grant systems, should be regarded as complementary to the Warm Zone approach. Such initiatives could, in principle, be linked in with Warm Zones' systems.

9.3 Scheme integration

A key objective of Warm Zones is to integrate existing energy efficiency schemes. This primarily means Warm Front, EEC, social housing capital programmes and Council private sector renewal grants (the latter are fairly limited). Theoretically, integration can lead to the following benefits:

- achieve economies of scale through running larger programmes
- save costs through streamlining common elements of similar programmes, e.g. surveys
- achieve greater impact of schemes through maximising the strengths of respective schemes, e.g. using Warm Front for funding heating works and EEC for insulation works
- extend the range of measures that can be offered to the same household
- extend the range of potential beneficiaries of schemes.
- Create a comprehensive and seamless service to clients, possibly further integrating the range of soft measures within the overall process.

The following section examines the extent to which Warm Zones have integrated schemes. The finding is that integration is fairly limited, particularly with respect to extending the range of potential beneficiaries to schemes so that all fuel poor households receive measures (rather than just those in receipt of qualifying benefits). However, the main limitation lies with scheme design and rules, rather than Warm Zones themselves. Contextual issues are discussed in Sections 10.4 and 10.5. This section focuses on Warm Zones' experience of integrating the different schemes.

9.3.1 Integration of surveys

4 of the 5 Zones have integrated the surveying function for Warm Front and EEC works whereby the same surveyors cover both programmes. None of the Zones pay for surveys and cite this as evidence that the Warm Zone process is achieving economies of scale. Managing agents pay for surveys out of their funds on the expectation that they will get a larger throughput of work and benefit from clustered delivery. Stockton reports that surveyors welcome the smaller travelling distances involved. This allows them to walk from job to job, rather than use their cars.

Stockton is the only Zone that employs a survey supervisor and bears this cost. Sandwell benefits from an EAGA-seconded supervisor (paid for by EAGA). Newham relies on Area Managers (one of whom is EAGA) to oversee the surveying function and Hull, on Dearle & Henderson. The Northumberland Warm Zone is only working with 2 of the 6 district authorities in terms of negotiating EEC deals. EEC contractors in Northumberland carry out their own surveys, with EAGA carrying out Warm Front surveys.

December 2002 update: EAGA has now agreed a common approach with all Zones in its area (Hull is in the TXU region). It now seconds a surveyor to each of the 4 Zones.

9.3.2 Integration of hard measures

This section discusses Zones' success in integrating the delivery of hard measures from different programmes. It focuses on organisational issues, rather than using integration to ensure all fuel poor groups are covered, however the following brief observations can be made about the difficulties Warm Zones face in trying to integrate Warm Front and EEC schemes in this way.

- There is considerable overlap between eligibility for Warm Front and groups defined as priority under EEC limiting the potential for Warm Zones to use to provide gap funding where households are not eligible for Warm Front.

- Scheme design means that EEC suppliers are not encouraged to provide 100% funding for measures and are focusing on either social housing tenants or affluent households whereby either the landlord or household part funds measures. There is therefore little incentive to provide schemes for low-income private sector tenants with no children or for pensioners whose only income is the state pension.
- Scheme design also means that EEC suppliers cannot part-fund Warm Front measures.

None of the Warm Zones have fully integrated Warm Front and EEC, apart from the surveying function outlined above.

All Zones have had more success in integrating local authority energy efficiency and EEC programmes. It is difficult to gauge whether this might have happened anyway, without the Warm Zone presence but the assessment is that Warm Zones have made a difference, if only to draw down EEC programmes faster than might have occurred otherwise. Certainly EAGA reports that many local authorities are currently delaying making a decision on bidding for EEC (presentation at NEA 2002 conference). In part, this is because they are waiting for the best deal and in part because they are confused about the different EEC programmes on offer from suppliers.

The secondment of senior fuel company managers to the post of Zone Director (or programme manager in Newham's case) has undoubtedly helped Warm Zones negotiate EEC deals with suppliers and local authorities. In this sense, local authorities in Warm Zones are perhaps further advanced in implementing EEC schemes than those outside Warm Zones. However, Warm Zones have not necessarily brokered the best possible EEC deal for their area, for reasons commented upon earlier.

Stockton Warm Zone has had the most success in integrating different funding streams. It aims to offer measures to all assessed fuel poor households, as well as the non-fuel poor but Warm Front/EEC 'priority' eligible (see below).

Good practice – integrating funding streams in Stockton		
Funding source	Amount	Scheme
British Gas SOP/EEC	£4.2	100% funding for social housing insulation schemes ³³ 50% funding for private sector insulation schemes (for fuel poor non-priority households).
Stockton Borough Council: Capital budget PSA SRB	£3.8m £0.5m £0.2m	50% funding for private sector insulation schemes (for fuel poor, non-priority households, i.e. to match fund EEC) £3.2m for heating programme in social housing
Transco Affordable Warmth programme		Not direct funding but used to underwrite SBC heat leasing scheme to triple SBC's original £1.1m budget)
Warm Front	£3.8m	100% funding for insulation and heating work in the private sector (benefit recipients; fuel poor and non-fuel poor)
Total budget	£12.5m	

Stockton benefits from a very generous SOP/EEC contribution from BGT. BGT only requires match funding for the fuel poor, non 'priority' eligible households. The Warm Zone also makes sure that the delivery of works from different programmes is coordinated, e.g. insulation installers and BGT central heating installers carry out work at the same time (mostly in void properties).

Sandwell and Hull Warm Zones have each negotiated a £½m p.a. contribution from npower's EEC fund for insulation works in social housing. This represents a contribution of £1.5m from npower in Sandwell (over 3 years) and £1m in Hull (over 2 years). The EEC funds are matched by £½m p.a. funding from the respective Councils, which pays for heating measures. Sandwell Warm

³³ Stockton argues that the proportion is in reality 70%. This is because the Warm Zone does not get paid the 21% management fee that is allowed for in EEC criteria; also Stockton BC provides 9% funding for the non-priority fuel poor private sector households.

Zone also hopes to use Transco's Affordable Warmth programme to expand the number of heating systems installed in Sandwell BC's programme through a leasing system.

Northumberland Warm Zone was not able to negotiate a common approach to EEC from the 6 housing authorities in Northumberland. However, it has obtained a commitment from npower to contribute £300,000 pa towards social housing insulation projects. The Zone has negotiated schemes in Alnwick and Tynedale whereby the two Councils are match funding npower's contribution. However, Berwick and Castle Morpeth Councils are finding it very difficult to identify similar match funding. Wansbeck considers it has largely completed CWI and loft insulation for priority households and therefore does not need further funding. Blyth Valley has negotiated a separate deal with Scottish Power, under the company's EEC scheme, which is used to run a boiler programme.

Sandwell, Hull and Northumberland Warm Zones have all reported serious concerns about the sheer number of fuel poor households they are identifying that they cannot provide measures for³⁴. In effect, they do not have sufficient 'gap funding' to provide measures for these households. The one potential exception to this is Blyth Valley in Northumberland (see below).

Good practice – integrating private sector renewal funds with HECA Action

Northumberland Warm Zone is currently attempting to negotiate a scheme for non-eligible fuel poor households in Blyth Valley. The Council is contributing £30,000, which Northumberland hopes to integrate with a county-wide HECA Action project, the 'Better Living Scheme'. This provides part grants (typically around 40%) for insulation works to any household in Northumberland. By combining the 2 schemes, the Warm Zone hopes to provide 100% grants for fuel poor private sector households who are not eligible for Warm Front.

9.3.3 Levering funds from outside Warm Front and EEC

The original model for Warm Zones envisaged that the creation of locally focussed structures would help lever in additional funds for fuel poverty abatement work beyond Warm Front and EEC. Regeneration funds³⁵ were viewed as particularly likely sources, since they are often designed to meet locally determined priorities such as combating deprivation. Zones would have a number of potential advantages for levering in regeneration funds:

- They can identify a clear quantifiable need through the assessment process
- They can highlight housing problems that are particularly problematic in their area, e.g. solid wall housing, properties of unusual construction, lack of access to gas
- They can highlight 'gaps' in existing provision, e.g. fuel poor households not eligible for Warm Front or priority EEC
- They can help broker match funding from different funding streams
- They can often make an economic case, particularly if local contractors are used for carrying out works or extra training is required because of skills shortages, e.g. gas engineers.
- They can present a case for how an anti-fuel poverty initiative might meet wider locally determined objectives, e.g. social, health or economic regeneration

Regeneration programmes have traditionally focused on economic objectives, e.g. job creation and provision of training. This meant that housing, social regeneration or community development projects often only received funding from regeneration programmes by presenting bids in such a way that they also fulfilled economic criteria (which sometimes led to bids straying from a project's original purpose).

³⁴ Newham reported that it did not have enough data yet to establish the extent of fuel poor households ineligible for Warm Front or priority EEC. However, the Zone suspects that it will not identify sufficient funding to address the needs of this group.

³⁵ Examples of regeneration funds include the Single Regeneration Budget (SRB), Neighbourhood Renewal Fund (NRF) and New Deal for Communities. Local authorities, or in some cases, Local Strategic Partnerships play a central role in administering such schemes, following guidance from the Office for the Deputy Prime Minister.

More recently, there has been a trend for programmes to have more holistic objectives, such that different objectives can be integrated and bids structured to show how they met a range of criteria. The Single Regeneration Budget and Neighbourhood Renewal Fund are examples of this type of approach, albeit with a bias towards economic objectives. Local authorities generally play a pivotal role in allocating regeneration funds, although this increasingly takes place through the medium of Local Strategic Partnerships (bodies made up of key partners in a local area, although local authorities still play the lead role).

Zones have had limited success to date in attracting regeneration funds. **Stockton** attempted to obtain funds from the Neighbourhood Renewal Fund but was knocked back, despite its bid being classed as 'priority' by the Local Strategic Partnership's Housing and Environment sub-groups. Stockton is disillusioned by the LSP process and is unlikely to try following this route again (Stockton considers there are serious structural flaws with the process). **Sandwell** found the process of applying for regeneration funds time-consuming and not cost effective, given the small amounts of money involved. It considers regeneration funds in Sandwell are too thinly spread and incapable of having a significant impact.

Sandwell have now successfully negotiated a £1½m Neighbourhood Renewal Fund grant, to be committed by March 2003. The Zone intends to use this on providing central heating for fuel poor households not eligible under existing schemes. The Zone is also likely to receive £200,000 from several of the 'town teams' within Sandwell for insulation works. The Zone considers it is now having more success in attracting regeneration funds because it has proved to funders that it has a reliable 'track record' on implementing capital programmes.)

Northumberland has not made a significant attempt to access regeneration funds, to date. However, it did comment that current and past regeneration schemes in the area had not prioritised housing investment. **Newham** has had most success in accessing regeneration funds and has used funds as a source of match funds for EEC (see below). Because of this, the Warm Zone does not consider it necessary for LE to reduce the 50% match funding requirement, as BGT has in Stockton. Newham has recently negotiated a further £250,000 from the Council's 2002/3 capital budget and set up a 'Warm Zone grant'. This will be linked to severe fuel poverty, particularly cases referred through health networks, and to non-eligible fuel poor households.

Hull has had little success in accessing regeneration funds. The Warm Zone was informed that most existing budgets were already committed, although it hopes to intervene in a SRB6/NRF project that is currently under discussion and that covers 2000 households. The Zone believes it may be able to draw down some further EEC money to match this programme. The Zone is also re-scheduling its programme to take into account a major regeneration programme, part funded by the RDA, that will focus on a particularly deprived area of Hull. The Zone will not address this area until last, in that regeneration is likely to involve substantial demolition.

Good practice – using regeneration programmes to fund anti-fuel poverty work

Newham has secured £300k from the Council's Capital programme and £100k from SRB3 to match against £400k funding from LE's EEC fund. Some of these funds will be used to target households that are not 100% Warm Front grant eligible. The Warm Zone hopes to draw down further EEC resources to provide match funding for other regeneration initiatives, e.g. SRB5 in Forest Gate, New Deal for Communities in West Ham and the Neighbourhood Renewal Fund (which covers the whole of Newham). The Warm Zone is following the Council's corporate strategy for regeneration, which has already established priority areas.

9.3.4 Comment

Warm Zones have played an important role in identifying gaps in the current mainstream funding programmes through the assessment process. However, they have had less success in addressing these gaps through the integration of programmes, with the exception of Stockton. They have also had less success in attracting funds from wider programmes outside EEC or Warm

Front, with the exception of Newham. There is some evidence that Sandwell is also now starting to have success.

Warm Zones have limited potential with respect to integrating Warm Front and EEC. The main problem lies with scheme design, rather than with the Zones themselves. Warm Zones are having some success in drawing down EEC funds and matching these with Council programmes. While this may have occurred without the presence of Warm Zones, Zones have probably facilitated the process. However, they have only negotiated deals with the sponsoring fuel company's EEC programme (with the exception of Stockton).

Stockton Warm Zone benefits from British Gas's flexibility over the match funding contribution it expects for its EEC programme. The remaining Zones would benefit if other companies displayed similar flexibility. However, in the longer term, the Government should consider how to encourage fuel suppliers to deliver more innovative EEC programmes in future rounds.

Warm Zones have had a mixed experience with respect to levering in regeneration monies to fund energy efficiency measures. Newham has had most success and hopes to build upon this. Other Zones have been less successful. Possible explanations for lack of success include:

- Zones have not developed the technical skills required for accessing regeneration funds
- Zones might not have made sufficient case for demonstrating why anti-fuel poverty work meets other regeneration priorities
- Zone timescales did not fit in with regeneration programme timescales
- Regeneration fund holders may consider there are more pressing priorities than fuel poverty in their area
- Zones are not sufficiently integrated within local authority structures
- Local authorities are awarding regeneration funds for political reasons, rather than 'objective', needs-based reasons.
- It is also possible that funders are reluctant to provide resources to new organisations with an unproven 'track record'. However, this attitude may change over time, once Zones become more established. This appears to be the case in Sandwell. This raises issues over the relative short timescale Zones have for meeting their objectives.

It is not possible to comment at this stage on Zones' ability to access regeneration funds, for example, the relative importance of national or local contextual factors. A fuller assessment will be made at a later stage of the evaluation.

9.3.5 Recommendations - integration

Suppliers should attempt to be flexible in providing EEC funds for priority households. They should consider reducing the 50% match-funding requirement in Warm Zones, and also in other areas.

Suppliers and Warm Zones should work together to design EEC schemes which maximise the scope for gap funding, using Warm Zones' assessment information.

The Government should consider the design and rules for the next EEC programme (post 2005) to encourage suppliers to deliver more innovative programmes.

Warm Zones could potentially lever in more regeneration funds. Further comment will be made at a later stage of the evaluation.

9.4 Relations with managing agents

9.4.1 EAGA

Warm Zones have close and regular contact with EAGA. EAGA is closely involved in Sandwell's programme and has seconded a surveyor supervisor to oversee the implementation of the programme. EAGA oversees the contractors and manages the assessment process. The Warm Zone gets regular feedback from EAGA on the progress on work. EAGA is one of two Area

Managers in Newham. However, work has only recently started so it is too early to report on progress.

Problems were encountered when EAGA 's computer system broke down in early 2002. This was a wider issue than for Warm Zones alone. In Sandwell's case, contractors did not get any work for 7 weeks. Stockton was able to use EEC funds to provide some work for contractors during this period. Newham's programme was not affected by the break-down.

Warm Zones receive a lot of queries about Warm Front from beneficiaries - 12 queries/day in Stockton. The most common query relates to waiting time for jobs and requests for information on progress. Delays are particularly problematic in Stockton where there has been a 9-month wait even for insulation works. Stockton and other Zones report difficulties and long delays in getting feedback on the progress of jobs. These problems relate to systems that were set up to deal with individual referrals, not bulk/block jobs.

As part of national arrangements, EAGA's systems automatically allocate jobs to contractors rather than specifying the most appropriate local contractor to facilitate coordinated delivery of measures. A number of Zones who use contractors to carry out free assessments were able to negotiate an arrangement by promising the resulting jobs would be forwarded onto the same contractor. However, EAGA's automatic allocation system has often led to other contractors receiving the work. Some contractors have already pulled out of this arrangement with Warm Zones, with others threatening to follow suit. This could seriously undermine Warm Zone finances where a fee system has been arranged with the Warm Zone or where assessments and surveys are being integrated and provided as in kind benefits to the Warm Zone.

It is understood that EAGA has recently revised its systems to deal more effectively with Warm Zone work and allocate jobs to contractors specified by Zones. Warm Zones report some improvements but it is too early to report whether the range of problems encountered have been solved.

Warm Zones also report problems in getting feedback from EAGA when referrals are rejected, for example, assessor error, inability to get landlords' permission or the '2 year rule'. Lack of feedback prevents Warm Zones investigating possible alternatives such as use of EEC funds and tackling other errors.

EAGA has recently instituted an improved procedure with Sandwell in which it provides detailed feedback on cases referred through the Zone. It intends to institute similar systems in the other Zones very shortly. EAGA has also recently instituted a 'compensation system' for installers who were not allocated the work they expected through the assessment work they carried out for Zones.

9.4.2 TXU Warm Front team

It has not yet been possible to interview Hull's Warm Zone Director or a representative from TXU Warm Front on relations between the organisations. This will be undertaken during the next stage of the evaluation.

9.4.3 Comment

It is too early to comment on whether EAGA's modifications of its systems have improved its ability to deal with block referrals. The lack of information on progress of works or rejected cases remains a concern. Recent improvements in procedure will be monitored closely. There is some anecdotal evidence that TXU Warm Front is better at giving feedback to agencies (e.g. EEACs) and householders but this needs to be verified. There would be value in conducting an experiment in which a Warm Zone takes over managing agency status for Warm Front within the Warm Zone area.

9.4.4 Recommendations – managing agents

Managing agents should provide feedback on the reasons for rejection of referrals and provide more rapid feedback to Warm Zones on the progress of works and measures installed than is currently the case. This could take the form of monthly progress reports on all outstanding referrals.

Managing agents and Warm Zones should continue to work on internal procedures to respond more effectively to bulk referrals from Warm Zones and ensure that Warm Zone nominated contractors receive promised work.

9.5 Reporting and feedback

Warm Zone central team has produced clear, concise and rigorous guidelines for the capture, processing, summarising and reporting of fuel poverty assessment and management information. These draw on experience from the pilots and investigation into good practice.

There have been problems with software that, owing to staff sickness, MVM (who produce the MAXIM and Starpoint systems) have been slow to resolve. Earlier practices such as ignoring floor area of dwellings in calculating required fuel costs, failure to take into account heating regime or tariff type added needless inaccuracy to an assessment process, which was already questionable in its application to individual dwellings.

Lack of consistency in the definition of fuel poverty, procedures for updating assessment information, dealing with feedback on intervention all reduce the confidence that could be placed in the data.

Lessons should be taken on board and guidance applied with more rigour and firmness. A summary of the key issues is given below.

9.6 Comment

The need to employ adequate verification procedures in using secondary data for desktop assessment. Some checking of desktop assessment against field assessment has been done in Newham, and really large errors are unlikely. But given the current rigidity of the 10% criterion, there is a need to closely examine the quality of such data since relatively small errors at the margins of fuel poverty have a considerable potential impact.

There are several issues around fieldwork assessment data that highlight the need for adequate training and close management of assessment. The use of inferred values must be minimised. The need for validation of the main assessment vehicle has also been highlighted.

There have been cases of exclusion of individual properties or blocks of properties in the past. When this is done on the grounds of personal safety, this is justifiable. However, it is important that systematic biases do not creep in. With this in mind, equal opportunities monitoring should be carried out to identify any instances of under-representation of geographical areas or social groups in the assessment, and consider what remedial action, if any, needs to be taken.

Recommendations regarding the reporting of data need to be consistently applied. In particular, where SAP estimates are based on less than the minimum data set, or income inferred from secondary cues, they should be regarded as “unknown” for reporting purposes.

Updating procedures need to be in place, so that new data from survey and even installation survey activity can be incorporated. At the same time, such instances need to be compared with other households initially assessed as “non-fuel poor” to check against assessment biases that might understate fuel poverty. The adoption of a lower trigger threshold of 8 or 9% would reduce this type of error, but create further problems in the absence of further funding.

Warm Zones’ monthly reports provide useful information but are time-consuming to create. Development of Management Information System routines that generate reports automatically would be helpful.

Guidelines require implementation. There is still surprisingly little information about the impact of activity. Now that problems of external feedback have been eased, fuller information should be forthcoming.

Several Zones have been using their database to gather information about issues such as the characteristics of fuel poor households ineligible for benefits. Newham has been using their facilities to prioritise low-SAP homes and thus make progress on the severe/extreme headline indicator. These developments are welcome, since the data contains a great deal of information about local variations in fuel poverty.

9.6.1 Recommendations – reporting and feedback

The Warm Zone central team should tighten and further standardise reporting procedures to facilitate objective comparison and assessment of Zone impact. The current pilots and potential future Zones should adhere rigorously to these procedures. The Board should insist that Zones follow these procedures.

10 CONTEXTUAL ANALYSIS

This section discusses the influence of local and national contextual factors on Warm Zones' success.

Levels of deprivation were considered key local factors in Warm Zones, plus factors such as commitment of the local authority, nature of housing stock, proportion of minority ethnic households and rurality.

The evaluation pays particular attention to EEC, Warm Front and social landlord schemes, since these are the main programmes Warm Zones are working with. EEC rules were found to limit EEC's ability to complement Warm Front as a fuel poverty reduction tool, particularly in the private housing sector, although it is recognised this is not the primary goal of EEC.

Warm Zones are providing increasing evidence of the mismatch between fuel poverty status and Warm Front eligibility, including initial details of people and housing characteristics that fall into this category. Only Warm Zones are capable of providing this information on a large scale.

The new Decent Homes standard in social housing may have some impact on fuel poverty levels, although its implementation will not lead to full fuel poverty elimination. It is noted that many local authorities question whether there are sufficient resources to fulfil Decent Homes Plans, suggesting disagreement with central government on this issue.

Finally, it is suggested that Warm Zones could be used as a mechanism for undertaking area delimited trials in which reforms of the mainstream programmes are trialled. These would test options for reforming programmes to more effectively address fuel poverty.

10.1 Introduction

Regardless of how well organised a fuel poverty reduction programme may be, there are obviously factors and developments at both local and national levels which may make it either more or less difficult to achieve its targets. Previous sections have already referred to many of these factors.

A simple framework for examining both local and national contexts has been developed for the evaluation, using evidence and views gathered from a variety of sources. These included:

- Zone reports
- Business plans
- Interviews with Partners and Zone Directors
- Views from knowledgeable third parties
- An extensive range of publications and reports relevant to fuel poverty

10.2 Local Context

10.2.1 Comparing deprivation in the pilots

The level of general deprivation obviously has a key bearing on the size of the task facing the Warm Zones. To analyse the influence of this factor, a brief comparative analysis of deprivation within the Warm Zones has been conducted. This considered the position of the Zones on ODPM's Index of Multiple Deprivation (IMD) and the individual 'domains' within the Index. The following is a summary of the analysis³⁶ and includes a descriptive analysis of particular features of deprivation within each of the Zones.

The IMD represents only one measure of general deprivation. It has limitations, for example it relies heavily on Benefit records. Given the apparent scale of the mismatch between fuel poverty status and Benefit eligibility the IMD does not necessarily reflect levels of fuel poverty. Despite the limitations of the IMD, Zones have made considerable use of it, e.g. for timetabling works within

³⁶ The full analysis of IMD is available on request

Zones by defining priority according to level of deprivation and as a key criterion in the original selection of Zones.

The following box plots³⁷ represent a pictorial comparison of the Zones' position on the IMD. Individual districts within Northumberland are shown separately, due to the large variation between individual authorities. 'Boxes' represent the inter-quartile range of wards within Zones, covering 50% of ward values. The t-bars extend to the wards with the highest and lowest values (although some plots show 'outliers'). The line across the box indicates the median value for each Zone.

Figure 10-1: Box plot of IMD score by Zone

Figure 10-2: Northumberland districts

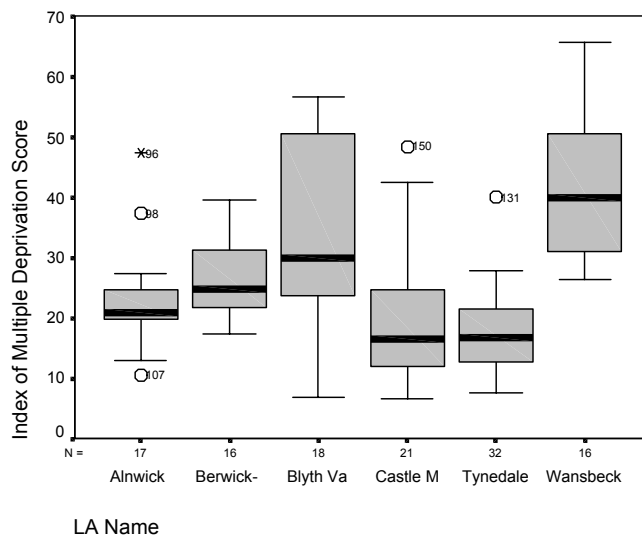
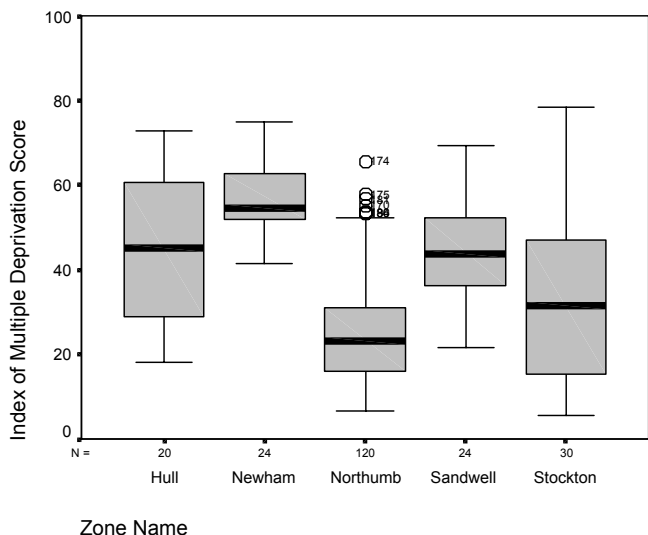


Figure 10.1 shows that the average level of deprivation is highest in Newham, followed by Hull and Sandwell. Figure 10.2 shows that whilst Northumberland as a whole has the lowest level of deprivation among the Zones, mean deprivation within Wansbeck is of a similar order to Sandwell or Hull. Deprivation is fairly evenly spread in Newham and Sandwell (and is uniformly high). By contrast it varies considerably across wards in Hull, Stockton and Blyth Valley.

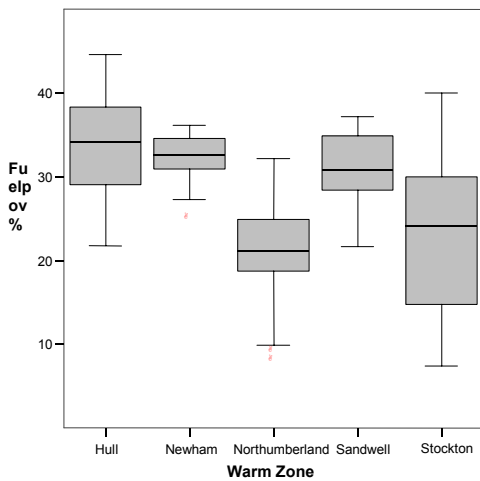
10.2.2 Comparison according to CSE's Fuel Poverty Indicator

Because general deprivation indicators are poor at describing fuel poverty, CSE, in partnership with Bristol University, has developed a small area Fuel Poverty Indicator. The Indicator takes greater account of key factors related to fuel poverty and was produced by modelling Census variables against EHCS data. Limitations are that it relies on 1991 Census and 1996 EHCS data and is therefore a little dated. At this point it has not been fully validated however, it was recently welcomed by a range of 'experts' working in the field and was considered a more accurate reflection of fuel poverty than general deprivation indicators (CSE will publish a full account of the methodology in the near future).

Figure 10-3 and Figure 10-4 present summary ward statistics for the Zones (and individual districts within Northumberland) based on the median, quartiles and extreme values of wards on the Fuel Poverty Indicator.

³⁷ Plots have been produced using SPSS.

Figure 10-3: Box Plot of Fuel Poverty Indicator by WZ



Warm Zone means

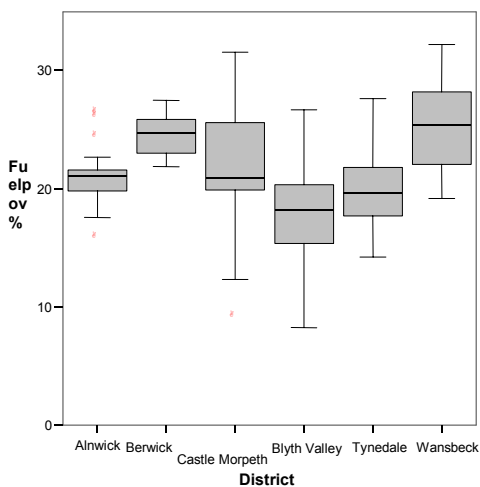
Hull:	33.8%
Newham:	32.3%
Northumberland:	21.3%
Sandwell	30.9%
Stockton	22.9%

England 21.8%

Figure 10-3 suggests that the distribution of (predicted) fuel poverty is slightly different to that of deprivation in general. The average level of fuel poverty is highest in Hull, with Newham and Sandwell close behind. Fuel poverty is significantly higher in the 3 Zones than the English average, whereas the averages in Stockton and Northumberland are of a similar order to the national figure. Fuel poverty variance is small in Newham (as with general deprivation), uniformly high across wards. By contrast, fuel poverty incidence varies considerably across Stockton's wards.

The differences between the distribution of fuel poverty and general deprivation relate to differences in construction of the two measures. The Fuel Poverty Indicator makes an *a priori* assumption that a significant proportion of the fuel poor are people living above relative poverty thresholds, although their incomes are still relatively modest. They are pushed into fuel poverty because of the energy inefficiency of their properties but are not likely to be eligible for means tested benefits. Warm Zone evidence suggests that this is a reasonable assumption.

Figure 10-4: Fuel Poverty Indicator - Northumberland



Northumberland means

Alnwick:	21.1%
Berwick	24.6%
Blyth Valley	21.6%
Castle Morpeth	26.7%
Tynedale	19.9%
Wansbeck	25.3%

Northumberland 21.3%

Figure 10-4 suggests that fuel poverty, like general deprivation, is highest in Wansbeck. However, Berwick, not Blyth Valley, registers the next highest score. The Fuel Poverty Indicator also

suggests that Wansbeck's score is significantly lower than that for Hull or Sandwell's (unlike general deprivation).

Warm Zones rely extensively on IMD statistics for planning and timetabling of works. It may be more appropriate to use the FPI for these purposes once validated. Of course the main funding programmes target benefit recipients, rather than the fuel poor. Wards displaying a large variation in terms of a high position on the Fuel Poverty Indicator and low position on the IMD are likely to contain a large number of non-eligible fuel poor households. Such a comparison, or better still a comparison against the income domain of the IMD³⁸ might help Warm Zones take steps to develop solutions in advance and make funding bids.

10.2.3 Perspectives of Warm Zones on impact of local factors

Members of Partnership Committees were asked whether they considered local factors made the Warm Zone task easier or more difficult. Zone Directors also made reference to local factors during our interviews with Directors on Warm Zone progress. The following briefly summarises the findings:

Newham - many referred to the high level of deprivation within the district and the fact that it is evenly spread leading to difficulties for prioritisation of individual wards. However, the Zone is working closely with regeneration initiatives and had established priority areas in line with the Council's corporate strategy for regeneration.

Other local factors mentioned include:

- Newham's large minority ethnic community;
- the high level of poor health - Newham has the 9th highest notification of TB in the world;
- the large number of asylum seekers;
- the high proportion of older people; and
- the large number of conservation areas that would prevent the installation of wall cladding if more widely available.

Northumberland – many referred to the rural nature of the area that makes the Warm Zone task more difficult and expensive. Assessors, surveyors and installers had larger distances to travel. People on low incomes are more likely to live next door to people on high incomes. Cultural factors relating to rural poverty may partly explain poor response rates to assessment, for example people living in more remote rural areas are considered more independent, self reliant and suspicious of external help.

Many also referred to problems relating to two-tier local government and the involvement of 7 different local authorities. The degree of commitment to both the Warm Zone and fuel poverty in general varied considerably across the different authorities. There is also a degree of competition between authorities, for example in accessing EEC funds. Finally, local government boundaries do not necessarily coincide with health structure boundaries, causing confusion and difficulty in establishing partnerships. One respondent referred to Wansbeck's former mining activity and the impact this had on many older men's health status.

Stockton – a number referred to the long history of work around energy efficiency and fuel poverty by Stockton Council. This allowed the Council to integrate their housing spend with the work of the Warm Zone relatively easily. A number of non-local authority representatives also complemented the authority for its degree of forward thinking, organisational competence and willingness to engage with other partners. Stockton also benefited from having an EEAC in the borough and the Council's early commitment towards meeting its HECA responsibilities. One respondent referred to the extensive contrasts between wards, reflected in political composition, tenure mix, property type and socio-economic status.

³⁸ Wards' position on the 'income domain' within the IMD is based on benefit recipients alone. The IMD, while heavily influenced by benefit recipients, also takes other forms of deprivation into account.

Sandwell – many referred to Sandwell’s large minority ethnic population and the issues this presents the Warm Zone. One member of Zone staff commented that many people of Asian origin were reluctant to answer the income question. One representative felt that the “poorest are often the most suspicious”. Others, by contrast, noted that the assessment job was more difficult in higher income areas as higher income householders were less likely to be at home and often more hostile to assessors’ questions.

The Warm Zone has taken a long time to establish relationships with the Council, particularly at a senior level. This was first interpreted as a lack of commitment to the Zone, although matters appear to have improved more recently.

Hull – the Warm Zone has not yet established a Partnership Committee, therefore local perspectives have not been collected in this Zone. However, the Zone Director highlighted the low value of properties in the area. With an average house price of £38,000, many question the value of carrying out major improvement programmes. The Director also expressed concerns over difficulties in establishing high level relationships with Council officers, the Council’s lack of revenue and the extensive number of solid walled and non-standard construction properties in Hull.

10.2.4 Recommendations – using deprivation indicators

Warm Zones should consider using the income domain with the ODPM’s Index of Deprivation in combination with CSE’s Fuel Poverty Indicator as a means of predicting wards likely to contain high proportions of fuel poor households not eligible for schemes. This will help Zones plan ahead and identify possible solutions.

10.3 National context

10.3.1 National context framework

There is a wide range of national contextual factors that will have a bearing on Warm Zones’ likely success. As with local factors, a framework for analysing national factors has been developed (Appendix 7). This section focuses on the three central energy efficiency schemes that have an important bearing on the ability of Warm Zones to meet their goals. There are major structural features in two of these schemes that work against Warm Zones.

10.4 The Energy Efficiency Commitment

10.4.1 Background

The Energy Efficiency Commitment (EEC), and the preceding Energy Efficiency Standards of Performance (SoP), was designed as a climate change instrument, rather than a mechanism for combating fuel poverty. Nevertheless, the Government assigns an important role to EEC in its Fuel Poverty Strategy and expects it to make a considerable contribution towards meeting the fuel poverty targets³⁹. EEC is estimated to provide £150m per annum, including match funding, towards energy efficiency measures.

The Government clearly expects companies to consider fuel poverty objectives when designing EEC schemes, as well as energy saving objectives. Energy suppliers must achieve 50% of their energy saving target through the provision of measures to ‘priority’ households. The EEC is currently not evaluated in terms of its fuel poverty impact. However, groups defined as ‘priority’ under EEC are very similar to groups eligible for Warm Front. It is therefore very likely that there is a mismatch between priority groups and fuel poverty status, as with the Warm Front eligible and fuel poverty.

³⁹ See, for example Table 4.7, DEFRA/DTI (2001), *The UK fuel poverty strategy*

10.4.2 Relationship between Warm Front and EEC

Unlike Warm Front, EEC schemes have the potential to fund work for households without children or claiming a disability benefit, plus those in local authority housing. However, households on Working Families Tax Credit, Disability Living Allowance do not count among the priority group. There is also a huge potential overlap between EEC 'priority' status and Warm Front eligibility. This will be quantified through the Comparison Zone data, when available. The extent of overlap is potentially so large that the Warm Front/EEC relationship is by no means "complementary". These schemes are therefore competing for the same low-hanging fruit. This is because benefits criteria are far easier to verify than, say, fuel poverty status, household medical status or low energy efficiency.

It is for these reasons that Warm Zones are experiencing considerable difficulties in using EEC as a source of gap funding, i.e. to provide measures for fuel poor households that are not Warm Front eligible or are social housing tenants. Although some of these issues were known, Warm Zones report that when first established, nobody envisaged that the extent of mismatch between Warm Front or EEC priority group and fuel poverty status would be as high as it has proved.

It is feasible that EEC schemes could be designed, *within existing criteria*, such that 50% of the work went to 'priority' households, and the rest went to the 50%⁴⁰ or so of the fuel poor who are not in receipt of 'priority' passport benefits. This would enable the scheme to more effectively play the role expected of it by the Government in its Fuel Poverty Strategy. However, it would mean ignoring near fuel-poor and fuel rich households from whom matched funding could reasonably be expected. It would also mean expense in terms of identifying non-benefit fuel poor households.

In this sense, Warm Zones should play a role in using EEC to target the non-eligible fuel poor since they are unique in being able to identify precisely this group as part of their standard procedure. The implications are that fuel companies would have to devise criteria for EEC schemes that only apply in Warm Zone areas and Zones would have to identify sources of match funding for EEC contributions. The notion of companies establishing Zone-specific EEC schemes might become more realistic if the Warm Zone programme is expanded. Cost effectiveness of the Warm Zones as a means for suppliers to meet their EEC targets is the main issue for making this work. Of the suppliers already involved, some have stated that they do not yet know if this is a cost effective option for them.

10.4.3 EEC and fuel poverty alleviation

Tenants of social housing are eligible for EEC schemes. They are likely to be in receipt of housing and council tax benefits therefore the eligibility gap is likely to be smaller in this sector. Gap funding is potentially available through Housing Investment Programme and Housing Corporation allocations to social landlords. Neither of these two funding sources is hypothecated to energy efficiency work, although Government guidelines suggest that one third of HIP funds should be allocated to energy efficiency.

It is also evident that there is scope for imaginative EEC/social landlord schemes that offer the same opportunity for efficiently clustered work as under the Warm Zone concept. This was common practice under HEES and early Warm Front.

However, in the private sector, where the Warm Front eligibility gap is likely to be substantial, energy-efficiency standards are lower and under-occupancy higher. Access to energy efficiency measures is particularly important but it is here that the overlap between 'priority' status and Warm Front eligibility limits the potential for EEC schemes to complement Warm Front. Of course, the problem could equally be presented as one relating to Warm Front, in that current Warm Front budgets are insufficient to tackle the fuel poverty problem alone.

⁴⁰ Overlap of fuel poverty and scheme eligibility is discussed further below

The Comparison Zone fieldwork will provide further data on this issue, but in the meantime, it appears that the scope for gap funding through EEC is limited, particularly in the private sector without adequate match funding identified from other sources. This undermines one of the key Warm Zone objectives, namely to integrate different funding programmes such that together they can effectively take all households out of fuel poverty.

The above analysis also suggests that if the Government wants EEC to play a more effective role in alleviating fuel poverty, rather than tackling fuel poverty solely through a well-funded central grant scheme such as Warm Front, the rules and scheme design should be reviewed for the future rounds to encourage more investment in these areas.

10.4.4 Other factors that undermine EEC potential for fuel poverty alleviation

The problem of overlap between Warm Front and EEC is compounded in Warm Zones. This is because Warm Zones are only accessing EEC funds from the sponsoring company. This potentially reduces their ability to access the full range of EEC funds and optimise the range of funds to address the eligibility gap⁴¹.

While evidence is scant and anecdotal, energy companies appear to prioritise EEC marketing and partnership development in areas outside their home base, which limits their ability to input to “their” Warm Zones. Tie-up arrangements with local authorities, whether or not including “preferred supplier deals”⁴², are very obvious and economical ways of generating EEC referrals. Given the benefits profile of local authority tenants (on average, 65% of social housing tenants claim benefits), it is easy to demonstrate the required proportion of ‘priority’ households. With the home base protected by their profile in Warm Zone publicity, a strong case can be made for such a strategy in commercial terms.

A further problem is that, given the ambitious nature of Warm Zone targets, a comprehensive gap-funding Warm Zone-EEC tie-in would consume an enormous proportion, perhaps all, of the expected EEC spend of all but the largest energy companies. This is particularly a problem for npower which sponsorship 3 Zones, two of which have among the highest fuel poverty levels in the country. This situation was the result of fuel company takeovers and was never originally intended.

In conclusion, EEC funding can potentially play significant role in fuel poverty alleviation, although this role is constrained by current EEC design and rules set until 2005. The alternative is to address fuel poverty through an expanded Warm Front scheme. Warm Zones are not able to avail themselves of the full range of EEC possibilities and at the same time are equally unable to call down sufficient resources from their own sponsoring company. Their partner local authorities are likely to feel a degree of disaffection, to the extent that they share the same constraint.

10.4.5 Recommendations – Warm Zones and EEC

The Government should consider the Warm Zone experience with EEC during discussions of the next phase.

The Government should use the proposed Warm Zone area-delimited experiments (see Section 11.5) to inform forthcoming discussions on the social dimension of future EEC programmes.

These should address:

- The interaction between EEC, Warm Front and other energy efficiency programmes.
- The potential for integrating EEC and Warm Front such that properties can have the full range of measures provided.
- The potential for introducing sub-targets relating to, for example, hard to treat housing (local authorities may be best placed to identify such properties) or appliances.

⁴¹ However, there is some evidence that Warm Zones are negotiating EEC deals with their partner social housing providers more rapidly than those outside Warm Zones.

⁴² In which voids (generated at around 10% p.a. in many authorities) are improved, with a pre-tenancy fuel company registration (which a new tenant is, naturally, free to alter)

- The potential for awarding extra EEC credits for intervening in low SAP/hard to treat properties
- The definition of eligibility criteria for priority EEC
- The setting of targets, e.g. the expectation of 50% match funding.

Should such piloting take place, it is essential that revised schemes are open to all fuel companies, not just Warm Zone sponsors.

In the longer term, the Government should consider how to encourage integration of EEC with Warm Front at national level.

10.5 Warm Front

Evidence for the mismatch between household fuel poverty status and Warm Front eligibility is growing. Research by CSE (for the new HEES pilot) and by NEA (using empirical data from Camden and North Tyneside) found typical patterns of about 45% of fuel poor households ineligible for Warm Front, and about the same proportion of Warm Front eligible households not in fuel poverty. Further investigation is required to confirm the figure in the Warm Zones and the reasons for which these households are not eligible, eg the proportion of social housing. Data from 10,000 assessments in Stockton illustrates the level of the problem:

Case study: Overlap between Fuel Poverty & WF eligibility in Stockton

Warm Front eligible households in Stockton = 42% (42,000)

Of these, 35% were fuel poor (14,700).

Fuel poor households in Stockton = 24% (24,000)

Of these, 38% were not eligible for Warm Front (9,120)

Similarly, Sandwell currently estimates that 48% of households assessed in Sandwell (14,900 households) are fuel poor (May 02). Of these, about 36% were found to be ineligible for Warm Front⁴³. Northumberland estimates that 62% of fuel poor households are ineligible for Warm Front and Hull, 79% of households. The figures for Northumberland and Hull's figures need further verification. It is not clear if these include social housing tenants for example. Overall further work is required to determine the number of fuel poor not eligible for Warm Front in Warm Zones

Warm Front aims to not only alleviate fuel poverty, but also fuel poverty risk. The error regarding a household as "fuel poor" when it is not is therefore less of a concern, unless it were also shown that many of these had a required fuel spend of less than 8% of disposable income and therefore were less likely to be at risk of moving into fuel poverty in the future. Such data has not been forthcoming so far. Of more concern is a household regarded as "not fuel poor" when it is. This indicates major unmet need.

10.5.1 Recommendations – Warm Zones and Warm Front

The Government should use the proposed Warm Zone area-delimited trials (see end of section) to help inform its forthcoming review of Warm Front.

The forthcoming Warm Front review should address the problems the pilot Zones have experienced in trying to integrate Warm Front and EEC, particularly the lack of complementarity between the two schemes (in terms of fuel poverty reduction). The Government should consider if an expanded Warm Front scheme may be a more appropriate way of tackling fuel poverty.

In addition to nationwide research on Warm Front, the forthcoming Warm Front review should examine Warm Zone evidence on the extent of mismatch between benefit status and fuel poverty status. The pilots should continue to provide detailed monitoring information on the precise nature of the ineligible group within its area. It should be remembered when considering the data that the results are for defined areas only and are not representative.

⁴³ These figures include households that did not quote income – imputed incomes were used instead. Warm Zone central is generally only undertaking detailed analysis for households that do quote income.

The forthcoming Warm Front review should consider the adequacy of the resourcing of Warm Front and its implications for meeting the Government's Fuel Poverty Strategy targets. The Government should consider the extent to which an expanded Warm Front programme could meet these targets including filling the current gaps in provision.

10.6 Social Landlords

10.6.1 Decent Homes Standard (DHS)

The recent requirement that social landlords should prepare plans to bring all stock up to the new Decent Homes Standard (DHS) by 2010, with 30% of the task to be completed by end 2004, is a positive development for fuel poverty alleviation. The DHS has four principles, all of which, directly or indirectly, have energy efficiency implications (see Appendix 7 for details).

The former DTLR (now ODPM) recently published a revised definition and guidance on the DHS. In theory, the impact of the standard on Warm Zones should be considerable, particularly given the prioritisation of the 95 most deprived authorities. These are thought to account for no less than 1.1m of the 1.7m homes currently estimated to be below the DHS. This is an enormous task, since age and general deterioration continue to produce an unwanted supply of newly non-decent homes.

10.6.2 The Decent Homes Standard role in fuel poverty alleviation

There are limitations to the DHS from the fuel poverty alleviation point of view:

- the lack of minimum SAP requirements
- the lack of other affordable warmth criteria
- the acceptance of only 50mm loft insulation as a minimum under most conditions

Nevertheless, it is clear that the application of the DHS will have at least some impact on fuel poverty. However, it is estimated that over a third of fuel poor households in failing homes would remain in fuel poverty even if their homes were improved to the Standard. An analysis of 1996 EHCS data showed, with figures grossed up, that of the 4.2 million social landlord homes, 1.7m (36%) would fail, with 21% of the total stock failing on thermal comfort alone. This rises to 30% when thermal comfort is combined with disrepair, state of facilities, or actual unfitness. Thus of those failing, 83% fail on thermal comfort, 15% on unfitness, 19% on state of facilities and 18% on disrepair. Thus, to achieve DH standards, energy efficiency issues will have to be addressed in 1.41 million socially rented homes.

The DHS guidance suggests that funds of around £2bn per year are being made available through the HIP, which sounds like an appropriate amount although it is not clear whether an estimate of external inputs, such as EEC funds, was included in this total. However, most of the Warm Zones report that their local authority partners have nowhere near sufficient housing funds to meet DH targets⁴⁴. Several Zones reported this as a specific barrier in meeting their objectives in the social housing sector. For example, Sandwell reported that npower was prepared to invest a larger amount than the current £1/2m pa commitment but was limited by the fact that Sandwell Council could not contribute any more with respect to match funding.

Finally, it is feasible that the DHS principles could be extended to all other sectors in the long term, although there would be major difficulties in enforcement in the owner-occupied sector.

10.6.3 Recommendations – Warm Zones and the Decent Homes Standard

Warm Zones should experiment with raising minimum energy efficiency requirements within the DHS (see below)

⁴⁴ Some of this may be explained by the fact that 21% of local authorities had not completed DH returns by early 2002 (according to the former DTLR) and only 45% of authorities had specified DH targets by that time. The status of the Warm Zone local authorities' DH plans will be reviewed at a later stage of the evaluation.

The Government should use the proposed Warm Zone experiment to inform the guidance it issues to local authorities on the required action to meet the minimum trigger point.

The Government should use the proposed Warm Zone experiment to inform decisions on the scale of resources it needs to allocate to local authorities, such that all homes meet the DHS.

10.6.4 Recommendations – area delimited trials

The current Warm Zones and possible future Zones should be used as a means for undertaking a range of area-delimited experiments. These would test how current schemes might be improved to maximise their impact on fuel poverty. The legal implications of any proposed trials will need to be explored given the legislative basis of Warm Front and EEC. The trials would be subject to consultation between the Government, Warm Zones Ltd and scheme managers, energy companies or key stakeholders and proven competence on the part of the Warm Zones concerned.

The trials could take the following forms:

- Give delegated Warm Front management status to individual Warm Zones to facilitate local integration. This will require the development of competence criteria for Zones participating in experimentation and careful consideration of the elements of Warm Front that are devolved, e.g. funds, installer management, installer infrastructure development.
- A more flexible eligibility model for both Warm Front and EEC, for example drawing upon the model developed by this evaluation. Eligibility criteria should aim to meet the five principles of validity, reliability, practicability, equitability and outcome-efficiency.
- A mean spend ceiling for Warm Front.
- Widen the menu of permitted energy efficiency measures so that solid wall and under-floor insulation, central heating controls etc are available under appropriate circumstances. This should input to the Energy Efficiency Partnership's matrix of technologies for difficult to treat properties.
- Fund pre-intervention remedial work.
- Embody minimum SAP standards for *all* social housing as part of the Decent Homes Standards in at least some Zones, with funding to match. This should be tailored according to the nature of the housing stock within that Warm Zone.
- Give leadership status to a local authority (with similar funding to existing Zones), to test the potential for Zones to broker EEC deals and proactively offer tariff advice.
- Consider ways in which fuel suppliers can be encouraged to participate more fully in fuel poverty initiatives such as Warm Front and EEC, e.g. extra EEC points for improving low SAP/difficult to treat properties.

The Government should take note of current Warm Zone experience. It is of note that the Warm Zones themselves have put forward two of these suggestions. Any results could usefully inform the review of Warm Front, forthcoming discussions on the future of EEC and any planned review of the Decent Homes Standard.

11 CONCLUSIONS AND RECOMMENDATIONS

11.1 Introduction

This section groups some of the major themes together as a springboard for the summary and recommendations at the beginning of this report.

The Warm Zone approach can most briefly be described as the systematic ward-by-ward assessment of households with multi-modal intervention, coupled with expanded and integrated funding streams operating within a partnership framework. Overall, this model is basically sound. There have been considerable achievements, much learning and some useful experimentation within the pilots. Some achievements have been conspicuous, but attained only under unusually auspicious conditions, unlikely to be replicated in full elsewhere.

There is still a lack of evidence from the Zones as a whole to fully assess performance on fuel poverty reduction (although Stockton's progress to date is commendable). Early indications are that much of Zones' under-performance is due to structural and contextual factors. These in principle could be remedied but a thorough evaluation of the effectiveness, given the current limitations, is important given that there is no guarantee that such changes will be forthcoming.

It is not possible at this stage to make a recommendation regarding roll-out of the pilot. More data is required to make a thorough assessment of the impact of Warm Zones and importantly the associated costs. More progress is required in many of the Zones to be able to test the different approaches being piloted. However, from the evidence collected thus far it is possible to identify lessons for the future operation and organisation of Warm Zones. These can be considered under the following headings, some of which are inter-related.

11.2 Intervention Model

The intervention model is basically sound. However, it is far from fully implemented, with provision of soft measures uneven, and the position on tariff advice deeply disappointing, however understandable. The lack of attention to the fuel-rich households, although understandable, limits the export of the model to areas of lower general deprivation, since most assessments would be carried out at some expense for little practical outcome. There has been development on the benefits advice front, although models of good practice need developing and more use could be made of telephone services. A higher and more even level of activity on soft measures would release more of the potential of the multi-model approach.

The Warm Zones have taught us that, if national fuel poverty reduction targets are to be met, every opportunity needs to be taken. There may be more scope for promoting energy-efficient appliances than has been seen so far, and Warm Zones ought to investigate, however limited, the potential for intervening in under-occupancy. The task of tackling 'difficult to heat' housing should not be left until the second 50% of fuel poverty is addressed. Every kitchen refurbished this year in a solid-walled property without considering internal insulation is an opportunity missed for its economical installation. Such an opportunity may not come round again for another 15 to 20 years.

Assessment is key to the Warm Zones process and should be validated to allow error to be managed and improve effectiveness. The possibility of poorly deployed resources at a time of limited funds, or households continuing in need through mis-assessment needs to be avoided.

In the meantime, consideration should be given to reducing the potential number of missed fuel poor households by reducing the trigger threshold from 10% to 8%. This would massively reduce (by perhaps 90%) the number of neglected households, even if the assessment were as high as 10%. Resource limitations may make this unfavourable, however; resources allocated to near-fuel-poor households reduce fuel poverty risk both to current and future households. They also contribute to energy savings objectives.

For the same reasons, consideration should be given to abandoning a fuel poverty trigger and moving to an affordable warmth criterion for social housing only where it can provide a useful alternative to assessment.

11.3 Operational Model

Evidence has been presented about the differential success rates of the different operational models. It is surprising that assessment completions are running as low as the mid thirties in percentage terms in some areas. In other areas, steady improvement has taken place, through training, personnel changes, and optimising deployment of assessors. However, some Zones have been forced by financial circumstances into maintaining sub-optimal ways of operating.

Different management arrangements have been tried too, some of which offer considerable potential savings on resources or even streams of income. These need further exploration. Data management still needs improvement, although part of the problem has stemmed from limited feedback from agencies carrying out work within the Zones (particularly Warm Front managing agents).

11.4 Organisational Model

While the current organisational model has delivered a great deal, it has a number of disadvantages. The constitution of partnership requires particular consideration. When sponsorship takes on an exclusive character, it prevents Zones from securing the best EEC deals, despite the bargaining power Zone assessment data would give in a freer market. It could be argued that restrictive sponsorship is inevitable under current circumstances. If that is the case, then sufficient ring-fenced EEC and other monies must be secured pre-launch or, alternatively, new Zones should search for their ideal partner during the pre-launch phase.

There is no clear reason at present to insist on any specific partnership model, although the presence of the local authority is obviously essential. Local authorities, voluntary associations or private companies, not necessarily fuel companies, might lead in different Zones, if they demonstrate they can do the job.

It is also expected that a concept of partnership that extends further down into the grass roots could be helpful in creating readiness in local communities for Warm Zone activity. This could assist marketing efforts and improve take-up. Both the Community Evaluation and the Armagh-Dungannon HAZ pilot emphasise the value of this type of activity. A community-led approach in two rural townships in rural Armagh brought about 100% take-up. The cost of these activities has to be recognised and budgeted for.

If roll-out of new Zones takes place, with more routine procedure than was appropriate for the pilots, it would be appropriate to review the Board's composition. A number of interviewees have continued to identify the position on the Board of Warm Zones Ltd personnel as anomalous on grounds of conflict of interest, and there have been suggestions for new membership, for example a local authority and an OFGEM representative. All agree that a review of the role would be required in the event of a roll out of the scheme.

11.5 Area-delimited variations

It is clear that there is a considerable mismatch between the eligibility criteria of the current portfolio of fuel poverty schemes and fuel poverty, much more than expected when the Warm Zones initiative was developed. Current circumstances will limit the ability of Warm Zones to achieve their full potential.

The current schemes have many virtues, such as their relative ease of eligibility assessment, and their amenability to central organisation. These also bring weaknesses. Suggestions for reform have come from a variety of sources, including from the Warm Zones themselves. It may, therefore, be appropriate to pilot changes to schemes under controlled conditions through a series

of area-delimited experiments in a future phase of Warm Zones. The Government should use the experience of these experiments to inform its review of Warm Front, forthcoming discussions on the future of EEC and any planned review of the Decent Homes Standard.

There are precedents for this approach, for example in the tax and benefit variations concessions associated with Enterprise Zones and Employment Zones and indeed with the extension, for a period, of council-house tenant eligibility for Warm Front in Sandwell Warm Zone.

11.6 Selection and set-up

Any future roll out of Warm Zones should take into consideration the following factors:

Expansion of the Warm Zone programme should only occur in areas that are able to meet the following criteria:

- Demonstrate the extent of fuel poverty;
- Have access to good data systems;
- Secure sufficient funds to cover core operational costs, provision of welfare rights advice, and third party funds capable of filling the measures and eligibility gaps between existing schemes;
- Establish strong partnerships with the key players, particularly local authorities;
- A common framework and strategy for areas covering a number of local authorities prior to establishment of the Warm Zone.

In the event of an expanded programme, any **local authority, consortium or partnership** that has carried out the necessary pre-application work should have the opportunity to become a Warm Zone. **Guidance** should be issued on such work. However, there is a case for prioritising new Zones in areas where there is demonstrably greater than average fuel poverty need, and/or lower than average energy-efficiency of the total housing stock.

To take advantage of management economies, and to secure developed expertise, there is a case for prioritising districts contiguous to existing Warm Zones. At the same time, some new Zones should be set up in regions not currently represented, such as the South and the North West. Consideration should be given to establishing one of a second wave of Zones in an area of average and or even lower-than-average deprivation; this would require fuller implementation of the intervention model, with activity directed towards fuel-rich households.

Many of the above factors involve costs. Moreover, the supply of fuel company funding is finite, and the experience of most of the Warm Zones has been a struggle for funds to do their job less thoroughly than they would like. There is therefore a strong case for establishing a central development fund that would help with set-up costs, and other necessary work (such as pre-installation remedial work) that are extremely difficult to fund adequately otherwise. A central Warm Zone message is that, if the job is to be done well, it needs adequate funding. It is striking that the best-funded Zone, Stockton, also has the lowest on-cost per job undertaken.

APPENDICES

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A1 RESULTS ANALYSIS

The procedure used for generating the results on fuel poverty reduction and other headline indicators is explained below. The tables contain the summary data used, calculations and headline results. A separate analysis is shown for each Warm Zone to enable comparison, and the right hand column gives the appropriate figure for the Warm Zones in aggregate.

The reporting period covers April 2001 to the end of July 2002. Note that Hull's late start means that rather less than 6 month's work is shown. Newham, while not starting up late, was slow to start field assessments. However, the Zone is likely to make up time later by eliminating many homes from the doorstep assessment task through its desktop assessment model.

A1.1 Warm Zones' report

Row	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
1	Assessed as : moderate FP	564	696	897	1,494	4,379	8,030
2	severe FP	90	86	75	457	675	1,383
3	total FP	654	782	972	1,951	5,054	9,413
4	Warm Front referred	923	333	2,059	11,600	3,538	18,453
5	EEC ref		1,092	696	25,494		27,282
6	Soc Landlords ref			55			55
7	Other scheme ref						
8	Total referrals	923	1,425	2,810	37,094	0	42,252
9	Estimated no households in fuel poverty (lower)	25,457	26,650	20,429	26,129	14,114	112,779

This is taken from a September 2002 referrals analysis provided by the Warm Zones central team. It shows those assessed as in moderate, severe, and all fuel poverty (lines 1-3), and referral destinations (lines 4-8). Baseline Fuel Poverty, given in row 9, was estimated using a simple NEA log-linear regression model based on IMD score, described in Section A2.1. [The CSE- Bristol University Fuel Poverty Indicator has since become available and gives broadly comparable results].

Note that referral destinations were not given in full for Stockton. However, all non-Warm Front eligible households are referred to Stockton's own gap-funding provision. In all Zones, referrals usually exceed the numbers identified as in fuel poverty, because many non-FP households have been referred to Warm Front or elsewhere where thought eligible. A second reason is that many assessments are incomplete, usually because of missing income data and are thus not included in the figures shown in rows 1-3. This is particularly the case with Sandwell, where only 11% of assessments include income details.

A1.2 Analysis based on July 2002 Warm Zones Standard Report

	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
10	Households	108,000	91,000	130,000	118,000	76,000	523,000
11	Assessments	4,489	5,770	8,015	37,094	18,860	74,228
11a	18 month assessment target	54,000	45,500	65,000	59,000	38,000	261500
12	% Assessment task completed	4.2%	6.3%	6.2%	31.4%	24.8%	14.2%
13	Acceleration needed to meet target	12	8	8	1.6	2	3.5
14	Fully assessed	3,951	4,616	5,030	4,201	16,886	34,684
15	Assessed as fuel poor	654	782	972	1951	5054	9413
16	Adjusted no of FP	743	782	1,549	17,227	5,645	25,946
17	Reported referrals		1,425	743	37,094		39,262
18	Estimate referred FP	646	998	1,441	8,870	5,349	17,304
19	Estimate referred non-FP	277	428	618	3,930	2,258	7,510
20	FP estimated WIP or done (0.7)	452	698	1,009	6,209	3,745	12,113
21	Non-FP estimated WIP or done (0.7)	194	299	432	2,751	1,581	5,257
22	Total estimated WIP/done	646	998	1,441	8,960	5,325	17,370

Each Zone makes a two-monthly report giving the complete numbers of assessments (row 11) and other information including the fuel poverty breakdown. From this data, the % of assessment task achieved so far is given in row 12. An estimate of acceleration needed to complete the assessment task within the 3-year pilot period is given in row 13.

Where referral data was not given, referrals are estimated from the referrals analysis in Section A1.1. Sandwell's referrals have been reduced to the estimated number of insulation and heating works' referrals in line with the point made above.

To allow for the danger of over-estimation of impact, a conversion factor of 0.7 is applied to "Work in progress or done" (rows 20,21). This is based on expected conversion rates from referral to a scheme through survey of the home through approval for work then through work completed, plus an allowance for late completion that would figure in the next year's outcomes. (There is insufficient data on conversion rates to allow for the fact that it doubtless would show some variation between geographical areas.)

Work in progress or done is shown by FP and non-FP household (rows 20, 21), so that work towards fuel poverty and energy efficiency targets can be separately identified.

A1.3 Warm Zones August 2002 report: limited samples where work approved/done

	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
23	mean SAP before	44.8	49.3	55.7	47.4	42.0	48.6
24	mean SAP after	52.0	53.6	60.2	55.3	54.8	56.0
25	mean SAP difference	-7.2	-4.3	-4.4	-7.9	-12.8	-7.4
26	number in analysis:	923	399	116	1,983	731	4,152
27	mean fuel cost reduction	11.6%	7.1%	7.4%	12.7%	18.9%	12.9%
	FPI categories:						
28	10-15	120	89	21	125	310	665
29	15-20	49	36	5	73	133	296
30	>20	25	10	0	46	39	120
31	n in FP before	194	135	26	244	482	1,081
32	mean FPI before	15.4	14.8	13.5	16.4	14.9	15.3
33	<10	26	19	3	35	192	275
34	10-15	112	79	18	123	229	561
35	15-20	39	30	5	56	47	177
36	>20	17	7	0	30	14	68
37	number in FP after	168	116	23	209	290	806
38	mean FPI after	14.0	13.7	13.0	14.6	11.8	13.1
39	taken out of fuel poverty	26	19	3	35	192	275
40	taken out of fuel poverty%	13.4%	14.1%	11.5%	14.3%	39.8%	25.4%
41	taken out of severe FP	8	3	0	16	25	52
42	taken out of severe FP%	33.9%	30.0%		34.8%	64.1%	43.7%

Given the continuing difficulties in obtaining feedback from scheme providers about work completed, and further limitations in internal reporting, it was agreed that Warm Zones should provide an analysis of a limited cohort of households. The cohort included households that had been assessed, referred and measures actually approved. Clearly, some households might still drop out, and some measures might not be completed for a few months, but this was the best available data on outcomes at the time of writing.

The analysis shows SAP and FPI data before and after intervention for the sample from each Zone. From this, percentages of households taken out of fuel poverty and out of severe fuel poverty are calculated in rows 40 and 42 respectively. Note: FPI is the Fuel Poverty Index: the % of disposable income needed to be spent on fuel to meet Standard Heating Regime.

In addition, mean % reduction in required fuel cost is calculated in row 27. This is based on the mean starting and completion SAP ratings using NHER calculations on a 60sq m two-storey property as a “typical case”. This may be a conservative estimate. Mean floor area in the comparison zone sample is 72 sq metres. Equivalent data has not yet been secured for Zones and, in any case, is inferred data in the case of Sandwell. However, the relatively high proportion of social housing in the work done so far in Sandwell and Newham suggests that the 60sq m figure is reasonable until full data becomes available.

A1.4 Grossing Up to estimated WIP/work done to July 2002

	Zone:	Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
43	Households taken out of FP through Warm Zones	61	98	116	891	1,492	2,658
44	Taken out of severe FP	20	16	0	407	194	588
45	"Natural" no. households removed from FP after 18 months	1,795	1,879	1,440	1,842	995	7,951
45a	Total no. households removed from FP (Warm Zones work plus 'natural' reduction)	1,855	1,977	1,557	2,733	2,487	10,609
46	Ratio total to households taken out through Warm Zones	1.03	1.1	1.1	1.5	2.5	1.33
47a	% Reduction in FP	0.2%	0.4%	0.6%	3.4%	10.6%	2.4%
48	Acceleration needed to reach FP target	105	68	44	7	2	11
49	Notional fuel saved pa (FP & non FP)	£48,716	£46,035	£69,327	£739,648	£654,193	£1,557,918
51	Total SAP pts improvement (all)	4,651	4,259	6,385	71,232	68,055	154,583
52	Total FPI pts improved (FP only)	605	742	466	10,815	11,735	24,363
53	FPI points needed to reach FP target	68,400	63,417	35,357	82,990	34,517	284,681
54	% of FPI points needed attained so far	0.9%	1.2%	1.3%	13.0%	34.0%	8.6%

These calculations (described below) gross up the results of the *limited-sample* impact analysis in Section A1.3, to the estimate of *total work* as described in Section A1.2. This has been done in proportion to referrals actually made. In doing this, it is assumed that 70% of the work is completed or is in progress at the end of July. For Warm Front referrals, this figure is apportioned between predicted numbers of fuel poor and non-fuel poor homes.

The analysis takes into account only energy efficiency work. The impact of soft measures as a proportion of the total is likely to be very small, to date, although obviously significant in individual cases. By the time of the next annual report, it is expected that hard data will be available on the fuel poverty impact, both separately (impact of soft measures alone on fuel poverty) and as part of the total impact of Warm Zones' intervention.

The impact results given are as follows:

Numbers taken out of fuel poverty, and out of severe fuel poverty, are given in rows 43 and 44. The % reduction in FP is given in row 47a. On a simple model, the target after a year and a half would be 25%. From this, the acceleration in fuel poverty reduction needed to hit target is given in row 48.

Rows 52-54 deal with distance travelled measures of fuel poverty reduction. For households in fuel poverty alone, row 52 shows the total improvement in FPI points (e.g. a reduction in FPI from 17 to 11 counts as 6). Row 53 gives an estimate of the total reduction in FPI points needed to meet the 50% numbers in fuel poverty reduction target, hence row 54 expresses the actual reduction as a % of target. (Note that it is likely that the “easier” work is likely to have been done first. However, no accepted method of weighting this type of issue exists at the moment.)

As a measure of improvement in energy efficiency, SAP points of improvement are shown in row 51. This is simply the sum of all the SAP improvements, and no weighting has been applied to reflect the way in which ease of making such improvements varies by starting SAP.

Equivalent notional fuel savings is given in row 49. This uses the same method of calculation as row 27 (described in Section A1.3), but translated into annual savings. No allowance was made for “comfort-taking”, since this is not done for HECA reporting.

Estimated additionality of Warm Zones activity is shown in row 46. This shows the ratio of Warm Zones-initiated fuel poverty reduction over the “natural” rate of fuel poverty reduction, given in row 45. Indications from the comparison zone data are that the natural rate shown may be an underestimate for areas comparable to Warm Zones. This is because local agencies are already fairly active in the field in both Warm Zones and comparison zones, since this is a key selection criterion.

A1.5 Warm Zones Cost Ratios

		Hull	Newham	Northumberland	Sandwell	Stockton	All Zones
55	% of WIP/jobs done	4%	6%	8%	52%	31%	100%
57	Warm Zones spend per household in FP in Zone	£1.09	£3.29	£1.85	£6.25	£6.10	£3.55
58	Warm Zones on-cost per intervention (row 22)	£182	£300	£167	£82	£87	£107
59	Warm Zones on-cost per household taken out of FP	£1,941	£3,046	£2,066	£828	£311	£699
60	Warm Zones on-cost per (59) + household from severe FP	£1,464	£2,630	£2,059	£568	£275	£573
61	Warm Zones on-cost per FPI point travelled (FP homes)	£195	£403	£516	£68	£40	£76
62	Warm Zones on-cost per SAP point improvement	£25.32	£70.27	£37.67	£10.35	£6.81	£12.02
63	Warm Zones on-cost per £1 required fuel saved p.a.	£2.42	£6.50	£3.47	£1.00	£0.71	£1.19
64	Warm Zones gross cost per Warm Front referral	£127.57	£898.83	£116.81	£63.58	£131.02	£100.73
65	Warm Zones gross cost per assessment	£26.23	£51.87	£30.01	£19.88	£24.58	£25.04
66	Warm Zones gross cost per completed assessment	£29.80	£64.84	£47.81	£175.57	£27.45	£53.59
67	Assumed approximate mean gross cost/EE job	£658	£379	£399	£729	£1,166	£813
68	Estimated total cost per household taken out of FP including measures installed	£2,599	£3,425	£2,465	£1,557	£1,477	£1,512
69	Warm Zones cost/household removed from FP as % of total	74.7%	88.9%	83.8%	53.2%	21.0%	46.2%
70	Estimated total cost /intervention	£840	£679	£566	£811	£1,253	£920
71	Estimated total cost/FPI point travelled	£686	£760	£1,381	£487	£412	£450
72	Estimated total cost/SAP point improved	£117	£159	£128	£102	£98	£122
73	Estimated total costs/£ fuel saved p.a.	£11.1	£14.7	£11.8	£9.8	£10.2	£10.3

In this section, headline Warm Zones costs are applied to the impact results provided in section A1.4. Most of the ratios show simply the *additional costs* of Warm Zones, but an attempt has been made to assess the total cost of intervention (i.e. including energy efficiency work) by adding in an estimate of the mean intervention cost, which is related to the mean distance travelled by each Warm Zone intervention. This estimate, derived from the Warm Front resources analysis carried out for the evaluation should be regarded as provisional, since it is based on limited empirical fuel poverty data, applying modelled costs given in the 1996 Energy report of the EHCS. It also does not include the administration costs of external scheme managers.

It is important to note that most of the cost ratios given do not represent the cost of the specific activity disaggregated from all other costs. At this stage of the evaluation, it is only possible to give reliable cost data in the form "Indicator of activity divided by total Zone costs". For example, assessment costs (row 65) is simply the total zone cost divided by the number of assessments. While such data is useful for comparison, it means that the individual costs in the table are not additive. However, a picture of the total outputs per unit of expenditure is given below in Section A1.6.

Most of the ratios are self-explanatory but a few require clarification.

Row 55 simply gives the proportion of Warm Zone jobs attributable to each Zone.

Row 57: this is the ratio of Warm Zone costs (row 56) over estimate of number of households in fuel poverty row 9, to give a measure of resources available or consumed in relation to the size of the fuel poverty problem.

Row 58: refers to the additional Warm Zone cost per intervention for *all* households receiving work, whether in fuel poverty or not.

Row 60: taking a household from severe fuel poverty to moderate fuel poverty is assumed to be an equivalent task to taking a household from moderate fuel poverty to non-fuel poverty. Data is not yet available on the separate proportions taken out of severe fuel poverty into the moderate FP and non-fuel poor statuses.

Row 67: applies the modelled cost per household removed from fuel poverty on the basis of the FPI distance travelled, because greater mean reductions in fuel poverty cost more on average. In row 68 this is added to the Warm Zones cost/household taken out of fuel poverty to give some indication of the total mean cost of taking a household from fuel poverty in each Zone. Row 69 shows the proportion of Warm Zones' costs of this row 68 total, to give a measure of the costs of Warm Zones' added value. (No allowance was made for actual or potential savings due to clustering of installation work since these savings are virtual rather than real at the present time, in that they do not accrue to either Warm Zones or scheme managing agents).

Rows 70:74 are all based on the total cost (row 68) not simply the Warm Zones on-cost.

A1.6 Package Analysis

As explained in Section A1.5, the cost results shown were not additive. To give a picture of the *combined* outputs, this section draws on the impact results and cost data already presented to show the package of activity delivered per £1000 spent.

		Hull	Newham	Northumberland	Sandwell	Stockton	All Warm Zones
74	Zone delivered package below for spend of:	£1,000	£1,000	£1,000	£1,000	£1,000	£1,000
75	generated Assessments=	38	19	33	50	41	40
76	giving Warm Front Referrals=	8	1	9	16	8	10
77	with Energy Efficiency Interventions=	5	3	6	12	11	9
78	to a value of:	£3,610	£1,263	£2,391	£8,856	£13,395	£7,596
79	plus: households removed from severe FP=	0.17	0.05	0.00	0.55	0.42	0.32
80	plus: households removed from FP=	0.52	0.33	0.48	1.21	3.22	1.43
81	increasing EE by SAP pts:	39	14	27	97	147	83
82	giving notional fuel cost savings pa of=	£414	£154	£288	£1,003	£1,411	£838

Note that energy efficiency interventions in row 77 refer to all referred cases whether in fuel poverty or not, and that the SAP improvement in row 81 is the sum total for those cases.

A2 TECHNICAL ANNEX

A2.1 IMD-based approach for assessing levels of fuel poverty

This report uses NEA'S Index of Multiple Deprivation (IMD) based model to estimate the baseline level of fuel poverty in Warm Zones. CSE has recently developed, with Bristol University, an alternative approach, referred to as the Fuel Poverty Indicator (FPI). This essentially matches 1991 Census and 1996 EHCS data to predict the number and proportion of households in fuel poverty for every ward in England. CSE's approach has yet to be published or fully validated (CSE is currently discussing with Warm Zones the potential to compare Warm Zones actual results with CSE's predicted results). Therefore the NEA model is used for the purposes of this evaluation.

NEA's approach models empirically derived ward based scores of the proportion of households in fuel poverty (of varying quality) from 3 districts⁴⁵ against ward-based IMD scores. These districts were used only because access to the raw data was available. The best-fitting models⁴⁶ were a simple linear model and a logistic regression. The latter fitted a curve that looked intuitively reasonable, but there was no other ground for preferring one model to the other. Therefore, the mean of the two predictions is used in applying the model to new cases.

It is essential to note that this is a purely statistical model, un-theorised except in so far as fuel poverty is regarded as a dimension of general deprivation. It takes no account of local factors such as incidence of communal heating schemes, larger/smaller than average incidence of older property, lack of mains gas etc all of which are bound to have an influence in the case of individual districts and wards.

Applying this model gives the results shown in the tables in Sections 2 and 5 of the main report. The figure of £1200 (for the average cost of removing a household from fuel poverty) is based on housing stock improvement data given in the 1996 EHCS Energy Report. It is not a mean figure for all stock, since the cost of dealing with the most "hard-to-heat" homes and those in very poor conditions is very much greater. It also ignores the role and cost of soft measures, since there is not yet data with which to assess the relative cost-effectiveness of their application. Finally, differences in the nature of each Zones task (for example, the mean depth of fuel poverty) cannot be taken into account until more data becomes available.

A2.2 Additional notes on assessment of Warm Zone impact

The baseline change in national fuel poverty levels published for 1999 and 2000 (described in Section 3 of the main report) does not take into account energy efficiency work, although the other data graphed (1991-1998) does. It seems reasonable to assign any changes from income and fuel cost changes both to Warm Zone and non-Warm Zone scenarios. However, it might be the case that income improvements to recipients of state benefits may be above average in Warm Zones through development in welfare rights advice. Fuel cost improvements might be slightly worse owing to the lack of tariff advice, although fuel company marketing levels are probably no different.

More problematic is the fact that Warm Zones implicitly assume that fuel poverty status is relatively constant, and that "households taken out of fuel poverty" can be totalled up over the three years. This may not be the case for all households, although it may be that the social and economic forces propelling households in and out of fuel poverty may be roughly equal over a short period. However, in the long run, household income tends to decline meaning that new fuel poverty tends to be generated among households who earlier appeared not to be in fuel poverty. The exception is younger households (other than female-headed lone parent households and very large families), who are less likely to be fuel poor. By the same token, renewed fuel poverty may re-appear among those apparently taken out of fuel poverty earlier. Only long-term follow up of household fuel poverty history could quantify this. Newham's targeting of low-SAP homes, at least in the local authority sector, should make its interventions less subject to these fluctuations.

⁴⁵ Camden, North East Lincs and Stockton, 65 wards in all

⁴⁶ in terms of minimising error sum of squares

The dynamics of fuel poverty status in individual Warm Zones remains unknown in the absence of client follow-up work.

A2.3 The Affordable Warmth Model (AWM)

A number of authorities, such as Newark & Sherwood and Woking, regard Affordable Warmth as an attribute of the building rather than the household. Here, all the problems of assessing household fuel poverty are removed by positing a minimum expected income for the household type and size suited to the property. Action is then taken to ensure that energy efficiency standards are high enough for even this household to achieve affordable warmth. Prioritisation can be based on the size of the disparity between current and target required fuel cost.

This method has the advantage of eliminating the *risk* of future poverty (subject only to the vagaries of fuel costs) and thus can be regarded as a preventative approach. The "minimum income" basically means benefits levels (and thus assumes 100% take up); but Newham has found considerable agreement between their desktop prediction based on council property data plus benefits records and a sample of these households followed up by field assessment.

Changes in household composition might be thought to undermine the rationale, but these can in principle be managed through soft measures, and/or through building in a safety factor in the calculations. The latter is preferable.

Since the AWM avoids the cost of assessment, yet permits clustered work, it is arguable that it is potentially more cost-effective for social housing than a fuel poverty based assessment model. An automated report from the housing database can easily show the proportion of housing where AW is not reached, although this will be a higher number than those actually in fuel poverty.

In the Warm Zones pilot, the Newham desktop assessment approach implicitly follows the AWM. It was originally hoped that comprehensive data would enable a full assessment to be made of all the local authority households, with the longer-term potential to widen this as housing data from the private sector improved, but this ambition has been scaled down. What has been done, however, is to perform minimum expected income calculations to determine which homes could not possibly generate fuel poverty under the full range of normal circumstances. This reduces the number of expensive household assessments required. However, referrals can still be made if households are eligible in terms of benefits, although they might be considered a lower priority.

For the AWM to be viable, energy efficiency data on the home must be up to standard. This is far from the case in most local authority or social landlord property databases. It is also important not to specify a minimalist standard, particularly in the case of pensioner households. For example, minimum insulation standards under the Decent Homes Standard are not adequate although "higher standards are recommended". A minimum SAP level needs to be given, as will be the case in Wales. [This might be set to cover 95% of homes, since there is a minority of homes which could only be brought up to standard at enormous cost, but which may still have value as short-term emergency accommodation.]

A2.4 Eligibility criteria for anti-fuel poverty work

Principles for defining eligibility

As for any other selective social benefit, eligibility criteria need to be:

- **Valid** – that when assessment is done, the criteria measure what they are supposed to measure either directly, or as a proxy. The criteria, direct or indirect, should enable a high probability that recipients are in fact in fuel poverty.
- **Reliable** – that they give the same result on different occasions or, when applied by different assessors, are not subject to excessive random error.
- **Practicable** – that they are easy and inexpensive to apply. This is an important consideration – means tests can often account for a significant element of scheme budgets.

- **Equitable** –that they are fair, for example, that those most in need are most likely to meet the criteria. "Need" might refer to the depth of fuel poverty, the probability of current or future fuel poverty, or of negative outcomes thought to be associated with fuel poverty such as poor health.
- **Outcome-efficient** – lead to a significant difference for the investment made, although this is partly a function of the package offered, as well as of eligibility criteria.

A2.5 Current Practice – Warm Zones, EEC and Warm Front

Eligibility for priority EEC and Warm Front is based on receipt of one of the following benefits:

Benefit
Income Support**#
Housing Benefit**#
Council Tax Benefit**#
Income-Based Job Seeker’s Allowance#
Disabled Person’s Tax Credit
Working Families’ Tax Credit
Attendance Allowance
Disability Living Allowance
Industrial Injuries* Disablement Benefit*
War Disablement Pension*

Note 1: # Warm Front ((child <16) or Warm Front Plus (>60 yrs) OR must have ** Disability premium or *Constant Attendance Allowance
Note 2: Warm Front, aimed at "vulnerable" households, also requires that the householder is an owner-occupier or private tenant.

EEC schemes apply to all types of households and all tenures. However, the supplier has to demonstrate that 50% of its energy saving target is delivered through measures in households in receipt of one of the benefits prescribed. This allows for WF-ineligible, the non-“vulnerable” and the near-fuel poor to be included, so long as the appropriate administration is done.

These schemes or frameworks are not directed at fuel poverty alone, but also fuel poverty risk (in the case of Warm Front) and energy conservation (in the case of EEC). However, in the discussion following, their eligibility criteria are *primarily observed from a fuel poverty point of view*.

Table A2.1 assesses the eligibility criteria for different schemes against the 5 dimensions discussed above. The "Gold Standard" refers to the full assessment of actual fuel poverty obtained from an extensive household means test coupled with rigorous energy audit. The Warm Zone assessment measures the same things, income and energy efficiency, but in a way which, while less reliable and valid, is much less expensive and intrusive.

Table 2.1: Assessment of eligibility criteria

Scheme:	EEC (schemes vary)	WF	WF Plus	Warm Zones	“Gold Standard”
Validity	Poor	Poor	Poor	Good??	v. good
Reliability	n/a	V. good	V. good	Poor	Fair
Practicability	V. good	V. good	V. good	Fair	Poor
Equitability	Poor#	Fair	Fair	Fair-good#	Fair-good#
Outcome efficiency**	Fair	Fair	Fair	Varies	Varies
#stepped eligibility is (EEC) or could be (others) embedded in these schemes **fuel-cost or SAP criteria could in principle be embodied in all of these. Newham is prioritising low-SAP homes from its desktop work. (returns are higher from a given expenditure in a low-SAP home)					

EEC and Warm Front eligibility criteria are practicable and cheap to apply and, because benefits status tends to be more constant than household income, reliable. However, many eligible households do not claim the benefits to which they are entitled. Older people in particular have low take-up rates⁴⁷. This group of course makes up over 50% of the fuel poor. There is a long running debate over the relative merits of universal and means-tested benefits. Because of the problem of non-claiming, some commentators argue for a three prong approach: targeting vulnerable households, targeting vulnerable houses and targeting vulnerable areas. The three approaches in combination should ensure that programmes reach the maximum number of fuel poor households.

EEC and Warm Front eligibility criteria also have relatively inequitable outcomes, because many fuel poor households are ineligible. Conceptually this is expected in some cases. Low income but not benefit eligible households may be pushed into fuel poverty because of energy inefficiency of their homes.

Warm Zones' assessments are potentially more valid and more equitable, but bound to be fairly unreliable, partly through probable random error but also because household circumstances change.

The Gold standard has the advantages of the Warm Zones approach and to a higher degree but is impossibly expensive, at a minimum of £60 per assessment plus processing costs. It also retains the problem that fuel poverty status changes over time and is therefore still somewhat unreliable.

Not all of these problems matter. On the question of validity, much is made of the mismatch between WF eligibility and fuel poverty. According to NEA estimates from Camden and North Tyneside data, broadly confirmed by data flowing from Zones, 30-45% of Warm Front clients in a given district are not fuel poor. However, most of these non-fuel poor WF clients could be said to be at risk of fuel poverty, as may any future household in the same home. This partially mitigates the unreliability of Warm Zones' assessment.

Future analysis of operational data from Zones should throw light on this. The initial estimate that 30-45% who are fuel poor are WF-ineligible is more important, and a Warm Zones -type assessment successfully picks up many of these and is thus more valid.

However, none of the eligibility criteria is particularly outcome-efficient, although the Warm Zone intervention model has the potential to be so. EEC schemes usually have a low ceiling on intervention costs, leading to problems in very low SAP homes, and usually require matched funding, although this does not have to come from the household. Conversely, WF and EEC may both lead to work being carried out in homes that are already energy efficient. In these cases, work on tariff advice, benefits advice or working with under-occupancy might be more outcome-efficient solutions from the fuel poverty point of view.

A2.6 Re-defining eligibility criteria

It is possible to construct eligibility criteria that are:

- valid in identifying those at risk of fuel poverty
- reliable and practicable in application
- efficient and equitable in their outcome

The criteria for such a scheme might look like Table A2.2 below, which is certainly not a recommendation to work towards, but a model designed to raise the issues involved:

Table A2.2: Possible scheme eligibility model

SAP rating	% Income to meet required Fuel Cost [if no Passport Benefit]
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⁴⁷ For example, the DWP estimates that the non-take-up rate of Income Support for pensioners is between 22% and 36%.

	≥20	10<n<20%	7.5-10%	5-7.4%	<5
<30	Enhanced+	Enhanced	Standard	Standard	75% discount
31-45	Enhanced	Enhanced	Standard	75% discount	50% discount
46-60	Standard	Standard	75% discount	50% discount	25% discount
>60	Standard	Standard	50% discount	25% discount	25% discount
EE measures Enhanced = As “Standard” but higher cost-ceiling package [always offered to “vulnerable” households] Standard =offer no cost flexible energy efficiency package (plus other measures) Discount =offer package at a substantial discount, possibly stepped info only =give information about schemes, and what householder could do at what cost with what benefit					
Financial and tariff advice: always offer if prima facie need identified (e.g. pp meter, eligibility for social tariff etc) with priority to FP households					
Under-occupancy: offer package if still in FP after all measures done & h/h in under-occupancy					
Energy Advice: always offer targeted energy advice to household, FP or not.					

Under such a model, all households referred to or contacted by the scheme would need the existing Warm Zones type of fuel poverty assessment.

- If household refuses the full assessment, or to disclose benefit status, a discount package can be offered (enhanced if demonstrably “vulnerable”)
- If household refuses full assessment, but will disclose benefit status, then if eligible, household is treated (although not recorded) as being “in fuel poverty” and standard package can be offered, enhanced if household is demonstrably “vulnerable”
- If household accepts full assessment, offer is based on combination of “vulnerability”, SAP and Fuel Poverty status, OR on benefit status if this leads to a more advantageous result.

Thus, the *practicality* and *reliability* of the benefits test is retained for a large proportion of clients, as are the simple categories of “vulnerability” used in Warm Front where there is an enhanced package for eligible pensioners.

Outcome efficiency is enhanced through the premium for lower SAP properties, and *equitability* is increased through more fuel poor households being included. However, the latter entails some loss of practicality for these clients owing to the additional expense involved in doing a fuel poverty assessment. Moreover, such an assessment, if directly associated with a publicly funded scheme, might have to be undertaken at a higher level of accuracy (the Gold Standard) than that used currently in the Warm Zones.

Some *validity* is lost if the criterion is “current household fuel poverty”, but not if the criterion is “fuel poverty risk”.

In theory this type of model would be much easier to operate in Warm Zones than elsewhere, through the maximum integration of funding streams for EEC, Warm Front (and possibly Social Housing) into a single local pot. The set of decision rules is obviously more complex than individual existing schemes, but can easily be represented as a flow diagram (as Stockton does with its referral decision rules) and computerised.

A2.7 Fuel poverty risk

There are two key questions relating to fuel poverty risk.

i) How does fuel poverty status (and FPI) change? Does this have any implications for eligibility criteria and the 10% trigger threshold?

What is the probability that a given type of household, once taken out of fuel poverty, will return to fuel poverty status within a given number of months/years (while continuing to live in the same home)?

How confident can we be of the stability of recorded Warm Zones' outcomes? How many of those taken out of fuel poverty during the pilot will still be so at the end? Conversely, how many new households will have entered fuel poverty after assessment has taken place?

While the effect of "churn" may average out in the short run, in the long term households tend to get less well off. This is not true of households in the earlier stages of the family cycle, other than the majority of mother-and-children households. However, in the post-45 age groups, adult children leaving home, retirement, and widowhood are life events that tend to be associated with loss of household income. Again, in the long term, energy-efficiency standards of the home degrade as heating systems become less efficient and finally expire.

These are key questions that Warm Zones have not yet fully addressed and for which client follow-up surveys could be useful. Comparison zone data will provide useful data.

Figure A2.1 shows relatively stable fuel poverty status for the majority of the sub-sample over a one-year period, but between 8.9% and 11.2% changed fuel poverty status, depending on the definition used. Rather more left, than entered, fuel poverty. More detailed analysis is needed. However, Table A2.3 shows the incidence of some major changes that will have a bearing on fuel poverty status.

Figure A2.1: % FP churn in comparison zones 01-02 (n=348)

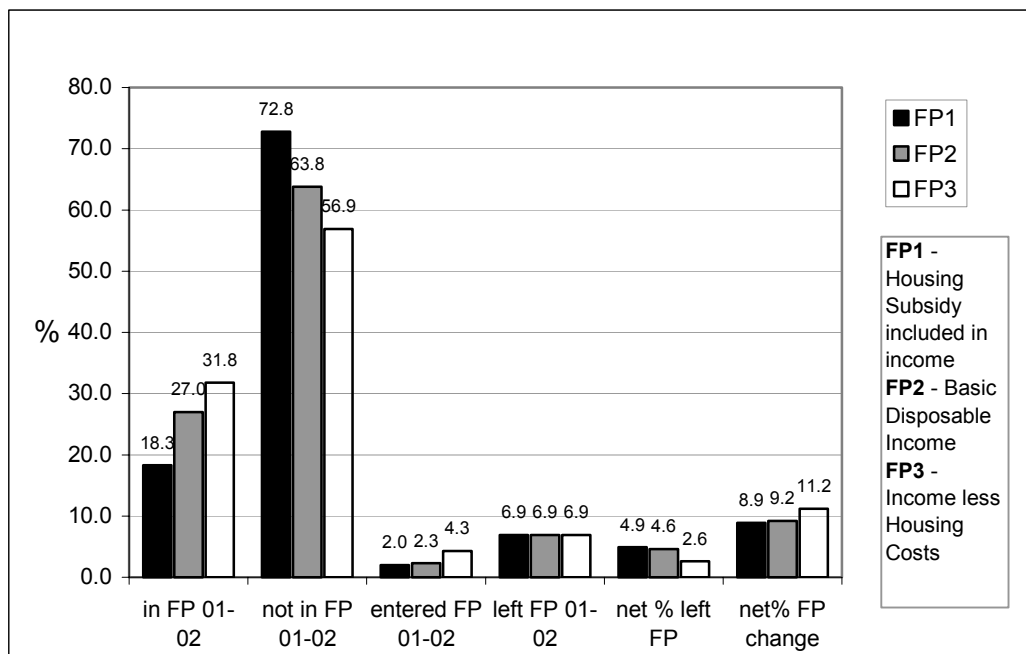
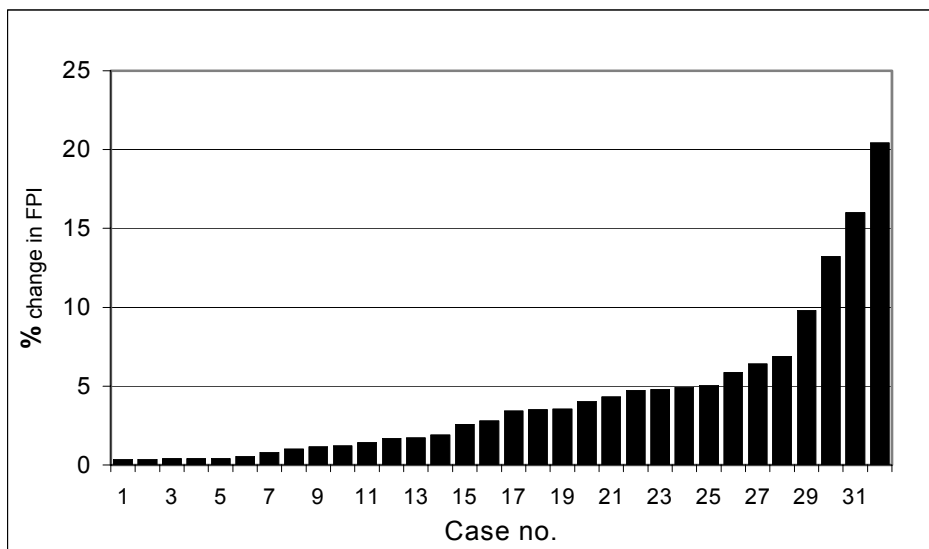


Table A2.3: Other comparison zone sample changes 01 – 02

Change in:	% unchanged	% changed	N
Total household	92.0	8.0	834
Household membership	94.8	5.2	853
Household income	78.4	21.6	399

8% were new households, 5% had experienced a change in household membership and 22% reported a change of income band. Most churn was relatively short range as the histogram indicates. Each case number is an individual household that has been subject to a change in fuel poverty. The height of the bar represents the change in FPI observed for the household over the period 2001-2.

Figure A2.2: comparison zone households' absolute FPI changes (FP2)



Less than a third of households experienced a change of FPI in either direction of more than 5. For about two-thirds, churn is a matter of short-range movement from near-fuel poverty to marginal fuel poverty. Because there are more households in the FPI 8-12% band than higher up the index, relatively small changes in fuel prices or benefits may propel quite large numbers of households from one status to the other.

The implications of this phenomenon are similar to those associated with error, discussed below.

ii) What is the risk of remaining in fuel poverty through mis-assessment?

A useful internal Warm Zone paper raised this question some time ago, but has not been followed up. At that time, the problem of diverting scarce resources away from fuel poor homes to the non fuel-poor (type 1 error) seemed a major problem. Given that there is concern over the reliability of the assessment process, studies of its reliability and validity are urgently required. However it is feasible to determine what the consequences of different levels of error might be. A simulation approach was used in which randomly generated error factors were applied to a file of empirical FPI scores.

Preliminary results suggest that changing the FPI trigger threshold to 8% would include the great majority of households who would otherwise be mis-excluded. This would be at the expense of including more households who would be at risk of fuel poverty. When resources are scarce, this is hardly feasible.

Without validation of Warm Zones' assessment procedure, we do not know what the error factor actually is or what steps to take in response. However, if the results from the churn analysis were followed, then setting an FPI cut-off of around 8% would probably lead to the inclusion of the majority of cases who were either wrongly assessed as non-fuel poor or who would later become fuel poor through one of the churn factors. The cost would be inclusion of more non-fuel poor clients.

A3 COMPARISON ZONE SELECTION PROCESS

After considering numerous combinations of three Local Authority areas which met specified selection criteria, letters of invitation were sent out to the HECA Officer or officer with HECA responsibilities at the short-listed Local Authorities. The partnership and co-operation of the Local Authority was paramount as it is from Local Authority Council Tax database that the comparison zones sample is drawn, and local contextual information sought. Fifteen were contacted in total.

Each district fuel poverty score was weighted by number of households and then a combined weighted average score was produced for a series of combinations of three. In selecting the three comparison zones the average fuel poverty score, population density, number of households and geographical location were all influencing factors.

The three areas finally selected as comparison zones are:

- **Nottingham**, an urban area in the East Midlands;
- **Tameside**, an urban/suburban area of Greater Manchester in the North West (dropped due to a low response); and
- **Carlisle**, the largest city in England in terms of area – the city contains a small urban core and a very large rural area stretching to the Border. Part of Carlisle District touches on Northumbria; this is mainly forest and moorland with negligible population. Communications are such that influence of Northumberland Warm Zone is thought to be minimal or zero.

Fuel poverty estimates are given below for the areas finally secured for comparison zone work. Co-operation has been agreed with a senior officer, usually the assistant housing manager, in each case.

<i>Local Authority</i>	Fuel Poor Estimate %	Number of Households (1000s)	Weighted average
Carlisle	14.5	44	638
Nottingham	26.5	118	3127
Tameside	20.4	91	1857
		253	22%

A4 COMPARISON ZONE RESEARCH METHODOLOGY

The research instrument used for the comparison zones consists of a household questionnaire and energy audit, given to a stratified (by ward) sample of households drawn from the Council Tax database or similar in each comparison zone. A target of 1050 lower income households receive the complete survey in 2002, while an estimated 3000 (higher income) households, highly unlikely to be in fuel poverty⁴⁸ receive a sub-set which does not include an energy audit. The respondent is the “head of household” or spouse/partner. The exercise is repeated in 2003 and 2004, although samples might vary on the basis of experience with the first one.

Most items have previously been used in fuel poverty work by NEA, Sheffield Hallam University, or the English House Condition Survey. Many items also feature in the Client follow-up survey designed for Warm Zones use, to facilitate future comparison. Consultancy was sought for the Energy Audit items from the Energy Audit Company, who also undertook training and support of fieldworkers⁴⁹ and analysis of energy data. The latter incorporated procedures that estimate change effects over 12 months and the impact of different fuel tariffs. The procedures also concentrated on analysing a key set of variables that have maximum impact on SAP and required fuel cost, and which must be captured with high reliability.

The research instrument itself contains about 25 pages and is not included in this report. The questionnaire is essentially a structured interview schedule with scope for more open-ended questions at a number of points. It is in four sections:

A. Screening Questionnaire

The purpose of this section is to collect basic household data and filter out those with a gross income of more than £15,000 per annum as it is unlikely that this group of people will be in fuel poverty. This group will be asked the Higher Income section of the survey and will collect household information, and recent experience of energy efficiency schemes. Households in accommodation that is not self-contained are screened out.

B. Higher Income Section

It is intended that this information will allow for useful comparisons between those who are fuel poor and those who are not. It is intended that by measuring differences in benefit take up, fuel expenditure, energy efficiency measures, how respondents feel about being warm and their current heating system, conclusions can be drawn regarding scheme targeting and any significant differences between the fuel poor and fuel richer.

C. Main Survey including an Energy Audit

The main aim of this section is to collect information from those who have an income of less than £15,000 per year and to measure fuel poverty. The section will collect financial data regarding income, benefits, housing costs, debts, savings and fuel expenditure to assess whether a household is in fuel poverty and also those in near fuel poverty.

It is at this stage of the survey that an energy audit will be carried out and data collected about any energy efficiency measures existing in the property, heating systems and fabric of the property. This information will provide a SAP rating (Standard Assessment Procedure – at level 0 enhanced) for each surveyed property. Respondents are asked to report their satisfaction with any energy efficiency measures they have had installed in their home in the last 12 months allowing a measurement of satisfaction of service in Warm Zone areas and non Warm Zone areas.

⁴⁸ On previous experience, a small number will be higher income family who have chosen to live in exceptionally large older property, which in turn is likely to be of relatively low energy efficiency. Arguably, these could be regarded in fuel poverty as an artefact of the measurement procedure, rather than in a state of real deprivation.

⁴⁹ Two days training by NHER registered trainer, provision of reference manual, supervised practical work, supervised field visit, provision of helpline.

Much of the data collected throughout this survey is intended to be directly comparable with the data being collected in the Warm Zones. The data collected will then be used in creating useful comparisons between Local Authority areas that have been exposed to the Warm Zone influence and those who have not and so indicating a measure of Warm Zone's success.

D. Permission for contact for follow-up purposes.

Request made.

A5 ROLL-OUT OF ACTIVITY IN STOCKTON

Work Programme for 30 Wards over 3 Years

Ward	Activity	2001 July	2001 Aug	2001 Sept	2001 Oct	2001 Nov	2001 Dec	2002 Jan	2002 Feb
Stainsby	Assessment Survey		Primary Assessment						
	Physical Measures				Work Planning	Delivery	Delivery		
	Data recording & Monitoring			Record data	Record Work	Monitor	Monitor		
	Soft Measures Marketing	Marketing	Marketing	Refer Marketing	Delivery Marketing	Delivery Marketing	Delivery Marketing		
Fairfield	Assessment Survey			Primary Assessment					
	Physical Measures					Work Planning	Delivery	Delivery	
	Data recording & Monitoring				Record data	Record Work	Monitor	Monitor	
	Soft Measures Marketing	Marketing	Marketing	Refer Marketing	Delivery Marketing	Delivery Marketing	Delivery Marketing	Delivery Marketing	
Whitton	Assessment Survey				Primary Assessment				
	Physical Measures						Work Planning	Delivery	Delivery
	Data recording & Monitoring					Record data	Record Work	Monitor	Monitor
	Soft Measures Marketing			Marketing	Marketing	Refer Marketing	Delivery Marketing	Delivery Marketing	Delivery Marketing

The work programme is continued through Stockton's remaining wards

A6 COMMUNITY EVALUATION METHODOLOGY

A6.1 Introduction

The community evaluation was conducted in 4 of the Warm Zones. Hull was not included because of its late start-up. In each of the four Zones, two neighbourhoods were identified with the assistance of the local Warm Zone team. One neighbourhood had recently been 'warm zoned' and the other was due to be in the near future, though not within six weeks of contact from the Community Evaluators, Icarus. A telephone survey was then conducted with community groups and relevant local voluntary organisations in the area to elicit information on the following:

Areas that had been 'warm zoned'

- Their overall awareness of the programme and its objectives.
- Their expectations of the programme, compared to what actually happened.
- Their views on the programme's priorities, compared to actual Warm Zone priorities.
- The extent to which they felt they had been consulted or involved in how the programme was delivered.
- Their views on the value/benefits from being involved; or, if they had wanted more involvement, the outcomes they predicted greater involvement would have achieved and the form it should have taken.
- If they had any direct feedback from residents about how the programme was delivered and what their experience had been.
- What, if anything, they thought Warm Zones should do differently.

Areas that had not yet been 'warm zoned'

- Their awareness and perception of fuel poverty as a significant issue for their neighbourhood and their views on priorities and appropriate methods of delivery.
- Their knowledge of the Warm Zone initiative.
- The extent to which they wanted to be involved in decisions on how the programme would be delivered in their area.

Groups in Northumberland Warm Zone were also asked whether there were any particular factors relating to rural poverty that they felt might have had a bearing on the programme. (Copies of the interview schedules/questionnaires are available on request).

A6.2 Application

In practice, the amount of assistance the Warm Zone teams were able to offer in identifying community groups and local voluntary organisations was limited. In many cases the information provided on the community databases they supplied was inaccurate or out of date. This was particularly the case in Newham, Sandwell and Northumberland.

There were also particular difficulties in Newham Warm Zone related to the delays in delivering the programme. This meant it had problems in defining any neighbourhood that it had completely Warm Zoned, with only 2000 houses having been surveyed at the point of contact from Icarus.

In the case of Northumberland, the Warm Zone had not been in touch with any community groups or voluntary organisations with the exception of two countywide organisations. Sandwell was not able provide phone numbers for the contacts it identified.

Where the resultant list of contacts was less than ten, contact was made with the local CVS to obtain details of community and voluntary groups in each area. This process again proved to be problematic due to the incompleteness and/or inaccuracy of the information held on CVS databases. In one case there was a reluctance to provide details due to concern about data

protection legislation. In addition, it was difficult to make contact with groups even when the apparently correct information was available, this frequently being a home phone number.

The difficulties Icarus experienced in contacting community groups and voluntary organisations is likely to be indicative of the problems faced by Warm Zones in doing the same. However, being on the ground and working with local partners should help to some extent.

The eventual number of interviews undertaken was relatively low and below that anticipated:

Stockton	13
Northumberland	6
Sandwell	13
Newham	9

This clearly means that the findings should be interpreted with caution, though many of the comments made by interviewees would appear to hold a good degree of validity.

A7 NATIONAL CONTEXTUAL FRAMEWORK

A7.1 Energy

- Wholesale prices
- Tariffs
- Distribution network
- Renewables

Liberalisation of the energy market and the associated drop in fuel prices has been responsible for substantial reduction in the numbers of households in fuel poverty. The general downward trend has slowed and wholesale gas prices have risen in the last 12 months, although customers are not experiencing rises greater than the general level of inflation. Not a great deal of further help can be expected from this source.

Under Ofgem's Social Action Plan, some social tariffs, such as TXU's Stay Warm tariff have proved popular. Anecdotal evidence suggests fuel bills for the eligible have dropped by 20 or 30%; even taking into account recent tariff increases. However, Warm Zones are not promoting Stay Warm (or any other non-sponsoring fuel company's tariff).

London Electricity is trialling a Powerkey plus tariff in Newham. Prepayment meter (ppm) customers on this tariff do not pay the ppm surcharge, providing they do not call-out engineers 'unnecessarily'. However, take-up of the tariff is very low. Furthermore since most Warm Zones base their fuel poverty calculations on standard tariffs (rather than ppm where appropriate), this means that fuel poverty is under-estimated for ppm customers. Northumberland is the only Warm Zone that factors in different tariff rates.

Stockton has promoted British Gas's Jigsaw account, which enables low-income consumers without bank accounts to benefit from direct debit tariffs. However, this could be construed as undermining competition, since other companies offer similar basic bank account facilities.

The recent extension to the required pay back period in evaluating gas network extension is welcome. Combined with DTI plans to pilot extension in certain areas it is likely that a larger number of rural households will benefit from gas central heating (currently the cheapest mainstream form of heating). However, for deeply rural areas oil fired heating, solar water heating or ground source heat pumps may be the only measures available.

A7.2 National Schemes

- Warm Front
- EEC

A7.3 Rules governing EEC targeting of low income groups

i) Under the EEC programme introduced April 2002, energy efficiency targets in the form of reduced consumption are set according to a notional spend related to the company's size of customer base. This notional spend averages out at about £3.60 per customer and is simply another item which bears upon the fuel supplier's bottom line. The "qualifying action" by which the target may be met is not constrained by any expenditure target.

ii) The notional figure relates to supplier costs only. However, it is derived from the company's energy saving target and the cost of measures, based on an element of matched funding for non-priority households and social housing priority households. For priority owner-occupier and private rented housing, the notional figure assumes 100% supplier costs. Of course, suppliers do not have to seek 50% match funding for social housing/non priority households. However, there is at least one example of a scheme that requires a 70% contribution; in effect the EEC scheme operator becomes the minority funder.

iii) "Qualifying action", as defined in the Electricity and Gas (Energy Efficiency Obligations) Order 2001, requires that 50% of the energy savings must be achieved in relation to domestic consumers in receipt of one of a list of benefits detailed in schedule 2 to the Order⁵⁰.

A7.4 Household Income Issues

- Benefit levels
- Employment trends
- Pension levels
- Availability of "Basic" banking facilities

Unemployment remains low in comparison with the immediate post-1975 period, although the proportion of low paying jobs grew substantially over most of the period (partly offset more recently by the introduction of the minimum wage). The recent introduction of the Minimum Income Guarantee for pensioners and the systematic attempt to eradicate child poverty has had some impact on the incomes of more vulnerable groups. BRE's modelling work for 1999 and 2000 suggests these factors reduced fuel poverty by several hundred thousand households, although the marginal fuel poor were affected most. The impact on 'distance travelled' was relatively minor.

There are still at least a million households who, through lack of direct debit facilities, cannot access the cheapest tariffs. While Warm Zones have discussed this issue in some depth, there is no evidence yet of a major improvement in this soft measure.

A7.5 Legislative & Regulatory Framework

- Decent Homes Standard (DHS)
- Home Health & Safety Rating System (HHSR)
- Social Action Plan
- Guidelines on Under-occupancy management for Social Landlords
- Building Regulations

A7.6 Principles underpinning the DHS

i) The home should be **above the statutory minimum for the fitness standard**. The Fitness Standard includes the central heating and distribution system and therefore has direct impact on energy efficiency. This will also be the case with the new Home Health and Safety Rating System (HHSRS), which will replace the Fitness Standard in 2004. The HHSRS is based on a thoroughly researched risk-assessment model, which includes an assessment of the risk of ill being due to the home being unable to meet satisfactory internal winter temperatures.

ii) The home should be in a satisfactory state of repair. This covers major building components such as roof and walls, but also electrics, boiler and fires. It will therefore have a potential impact on energy efficiency.

iii) The home should have a satisfactory range of facilities and services, which should be in reasonable condition. This is defined not only by the actual condition, as judged by a surveyor, but by age, and many facilities, such as bathrooms and kitchens can be assumed to require replacement by 30 years. Refurbishment of bathrooms and kitchens offers an ideal opportunity for minimum-cost installation of dry lining (or possibly installation of wallreform) for solid walls.

iv) The most direct energy efficiency requirement is that the home should be able to attain a satisfactory degree of thermal comfort. This is defined as a minimum (with higher standards recommended) as follows:

EITHER: there is an effective and efficient gas or oil central heating system with programmable controls, with cavity wall insulation where applicable and ≥ 50 mm of loft insulation

⁵⁰ CTB, HB, IS, IBJSA, or attendance allowance (subject to various stipulations)

OR: there is an electrical heating system, or programmable LPG/solid fuel system with cavity wall insulation (where applicable) and $\geq 200\text{mm}$ of loft insulation.

On repair/refurbishment, boilers must be replaced by equipment of SEDBUK A – C standard, but there is no specific SAP recommendation within the DHS standard in England. It is notable that the Welsh Quality Standard, currently under consultation, will set minimum SAP refurbishment and a minimum of 200mm loft insulation for all houses. The Housing Corporation has set similar minimum standards for RSL property.

A7.7 Guidelines on under-occupancy

It is not clear how far guidelines on under-occupancy management have been proactively implemented. Comparison zone data should throw light on this. Some Zones have experienced difficulty in engaging with RSLs.

A7.8 Building regulations

Part L1 of the building regulations creates new and demanding standards for energy efficiency both for new build and on refurbishment, to the extent that some social landlords are exercised by the difference between the demands of L1 and the permissiveness of the Decent Homes Standards. In particular, the insistence on SEDBUK A-D rating equipment (along with encouragement of best practice through the CHeSS specifications) means that energy efficiency standards will rise substantially through this alone, albeit raising the price of intervention.

However, there is concern that compliance management is very low key, relying on self-certification. Moreover, there are no regulations regarding minimum performance for given exterior conditions, reliance being placed on “industry practice” of meeting SHR at -1degC outside. Neither are there standards for the ergonomic design and siting of controls to meet the needs of vulnerable people who through age or disability may find it difficult to understand and manage the controls.

Thus, while changes in regulation suggest improvement, there is no guarantee that the standards will be met, giving a further reason for follow-up visits to the homes of Warm Zone clients.

A7.9 Technical Developments

- Improvements in Heating Technology
- Improvements in Insulation technology

It is unreasonable to expect Warm Zones to be at the forefront of technical innovation, although several are planning to introduce CHP and Stockton is trialling Wallreform (a new insulation product for solid walls). Experience is accumulating outside Warm Zones. Some commentators believe that CHP will make a breakthrough within the next 12 months.

Condensing boilers have presented difficulty in that landlords in particular have resisted them in spite of their major energy efficiency gain, on the grounds of increased maintenance and repair costs. Hull Warm Zone reported initial resistance from Hull CC to the installation of condensing boilers (subsequently dropped).

A7.10 Industry Capacity

- Central heating manufacture
- Central Heating Installation
- Insulation manufacture
- Insulation installation

Some Zones have not experienced the bottlenecks in supply that have bedevilled others. It is obvious that capacity problems appear to be much more of a problem in some parts of the country than others. We understand that the problem is not limited to gas engineers but also applies to CWI contractors. The Government has put measures in place to increase the supply of gas engineers. However, we understand that the problem is likely to get worse in the more immediate term. This obviously will have implications for the work of Warm Zones.