



Notice of meeting of

Reducing Carbon Emissions Scrutiny Sub-Committee

To: Councillors Fairclough (Vice-Chair), Blanchard, Hill,

Horton, Kirk and Livesley

Non –statutory, non-voting co-opted members:

Pat Holmes, Mildred Grundy and Honorary Alderman

Jack Archer

Date: Wednesday, 5 July 2006

Time: 5.00 pm

Venue: Guildhall

AGENDA

1. Chair

To elect a Member to act as Chair of the meeting.

2. Declarations of Interest

At this point Members are asked to declare any personal or prejudicial interests they may have in the business on this agenda.

3. Minutes (Pages 1 - 4)

To approve and sign the minutes of the meeting of the Housing Scrutiny Board held on 6 March 2006.

4. Public Participation

At this point in the meeting members of the public who have registered their wish to speak regarding an item on the agenda or an issue within the Panel's remit can do so. The deadline for registering is Tuesday 4 July 2006 at 10.00am.



5. Draft Final Report: Reducing Carbon (Pages 5 - 102) Emissions from York's Public and Private Sector Housing

To consider the draft final report of the former Housing Scrutiny Board, delivering their research and findings regarding approaches Local Authorities might take to reducing carbon emissions in York's public and private sector housing.

6. Urgent Business

Any other business which the Chair considers urgent under the Local Government Act 1972

Democracy Officer:

Name: Jill Pickering

- Telephone (01904) 552030
- E-mail <u>jill.pickering@york.gov.uk</u>

For more information about any of the following please contact the Democracy Officer responsible for servicing this meeting

- Registering to speak
- Business of the meeting
- Any special arrangements
- Copies of reports

Contact details are set out above.

City of York Council Minutes

MEETING HOUSING SCRUTINY BOARD

DATE 6 MARCH 2006

PRESENT COUNCILLOR JAMIESON-BALL (Chair)

COUNCILLOR HORTON (Opposition Spokesperson and Advisory Panel Member), COUNCILLORS BLANCHARD, FAIRCLOUGH,

HILL, KIRK and LIVESLEY

IN ATTENDANCE Honorary Alderman Jack Archer.

APOLOGIES Pat Holmes, Mildred Grundy

(Non-voting co-opted Members)

32. DECLARATIONS OF INTEREST

Members were invited to declare at this point in the meeting any personal or prejudicial interests they might have in the business on the agenda. No interests were declared.

33. MINUTES

RESOLVED: That the minutes of the last meeting of the

Housing Scrutiny Board held on 6 February 2006 be agreed and signed as a correct record subject to the removal of Councillor Blanchard's name

from the list of those members present.

34. PUBLIC PARTICIPATION

The Chair advised the Housing Scrutiny Board that there had been no registrations to speak under the Council's Public Participation Scheme.

35. HOUSING SCRUTINY BOARD REDUCING CARBON EMISSIONS FROM YORK'S PUBLIC AND PRIVATE SECTOR HOUSING

Members considered a report, which provided an update on the decision, made at the last meeting of the Board to defer further work on the drafting of the final report pending exploration of the following issues

- Any Innovative Schemes which could be applied to York
- Warm Front Road Show ideas arising
- Possible attendance of an installer of insulation/solar thermal

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How private landlords/the student sector approach thermal efficiencies

Consideration was also given to Annex A, which detailed a scheme introduced by Braintree District Council in conjunction with British Gas, involving the payment of rebates on council tax bills to households that installed cavity wall insulation. Annex B the Student Letting Code of Practice, circulated by email to Members, and Annex C which gave details of grants take up from the Energy Efficiency Advice Centre and the Energy Partnership.

Graham Stephenson, from the Energy Advice Grants Agency Partnership, indicated that the body had been set up in 1990. Since 2000 the Government had asked the body to implement the Warm Front policy. The Partnership had now taken over the North Yorkshire Scheme from Powergen. He indicated that they relied on partners to make the Warm Front scheme work, the better organised the group the better the uptake. He indicated to Members that

- If a specialist target for a mailshot was identified then the Partnership would be prepared to meet the costs involved.
- All the Warm Front printing work was with PMS Printers in York who already had data protection licenses in place and who would ensure that all residents information was destroyed following the mailshot distribution
- Reference to a new scheme in Middlesborough led by a PCT steering group involving health visitors, occupational therapists etc who considered residents thermal comfort and were able to make referrals to the appropriate bodies.

Ruth Abbot, Principal Environmental Health Officer, referred to resource issue problems if Members wished to use the door-to-door approach to increase take up. Data protection problems had been encountered in obtaining details of persons eligible for assistance when preparing mailshots. Notes on energy efficiency measures were circulated to Members.

Ruth Abbott also referred to the Code of Best Practice for York Landlords and Students over which there had previously been no control. It was reported that changes to the Housing Act came into effect on 6 April 2006, which also related to the licensing of Houses in Multiple Occupation (HMO's). It was proposed to introduce an award scheme during 2007/08 for the code of practice. She also referred to talks held each year with York University Students Union, radio, television and press advertising on benefits available to students. She reported that the York Landlords Group were keen to be involved with any energy efficiency measures and wished to improve the private rental sector for which grant aid money had been allocated next year. It was pointed out that York was the only authority in the area, which still provided landlord grants.

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Jo Leffler, the EAAC representative from the Energy Advice Centre, confirmed that the Centre was building a working relationship with EAGA. The Advice Centre would support the preparation of a mailshot, including marketing and press campaigns but a start needed to be made on development work. This would involve the designation of a person to act as a HEECA officer to support the setting up a Forum/Steering Group to work in partnership with the CVS, community groups etc. She confirmed that the Advice Centre were now working with Ruth Abbott in relation to the provision of Home Insulation Grants and they hoped to see an increase in take up during the next financial year.

Detailed feedback from Cllr Hills attendance at the Warm Front Road Show was circulated to Members.

Members questioned and commented as follows

- Concern regarding the low take up of Warm Front grants, over the last 4 years York with a 2.4% take up compared with other authorities in North Yorkshire of over 4% and the need to work jointly with bodies to increase this figure
- What support could EAGA give to authorities to improve take up of grants
- Use of the English House Condition survey undertaken every 5 years to assist with the identification of property
- Queried how students not living in rented properties would qualify for energy saving schemes
- Low take up on solar panel systems
- Need to ask each of the agencies what they can provide to improve take up
- Focus marketing appeared to be the key to improving the low takeup.

Members were updated that at the last meeting of the Scrutiny Management Committee approval was given to the Housing Scrutiny Boards budget request, in respect of printing and distribution of the 'pilot' leaflet to selected households regarding energy efficiency grants.

RESOLVED: (i)

- (i) That the further information/evidence provided in the report and received from the expert witnesses be taken into account in the draft final report and brought back for further consideration to the next meeting.
- (ii) That the expert witnesses be thanked for their input and attendance at the Scrutiny Board meeting

COUNCILLOR JAMIESON-BALL (in the Chair)

The meeting started at 6.25pm and finished at 7.40pm.

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Reducing Carbon Emissions Scrutiny Sub-Committee

5 July 2006

Report of the Head of Civic, Democratic and Legal Services

DRAFT FINAL REPORT: Reducing Carbon Emissions from York's Public and Private Sector Housing Summary

- Members of the Reducing Carbon Emissions Scrutiny Sub-Committee are presented with the draft final report of the Housing Scrutiny Board delivering their research and findings regarding approaches Local Authorities might take to reducing carbon emissions in York's public and private sector housing.
- 2. Members of the Sub-Committee are recommended to:
 - consider the content, format and recommendations held in this report
 - agree, subject to any amendments, its submission to Scrutiny Management Committee (SMC) in line with their decision to complete outstanding scrutiny topics as a matter of urgency.

Background

Potwoon 2005

3. Between 2005-2006 Scrutiny¹ at the City of York Council advanced the development more robust and holistic strategic approaches to delivering carbon reduction and energy sourcing across all sectors of the Council's work bar transportation fuel.

- 4. In July 2005 Members of the Housing Scrutiny Board chose to progress a registered topic regarding the 'Reduction of CO₂ Emissions from York's Public and Private Sector Housing'. The topic was chosen by the Housing Scrutiny Board as complimentary to the aims of the other Scrutiny reviews and recommendations supporting the authority to monitor, manage and achieve carbon savings.
- 5. The report at Annex A presents their findings and recommendations at completion of their review.

¹ Through work of the Boards: Environment and Sustainability, Housing and, Planning and Transport

Consultation

- 6. During the course of this scrutiny, the following consultees were engaged:
 - Regional Energy Policy Manager: through attendance at a Board meeting for lines of questioning and advice regarding regional best practice approaches and through correspondence regarding region wide and national exemplars for presentation to the Board.
 - Energy Efficiency Advice Centre Officers (EEAC Officers): Through attendance at Board meetings regarding funding streams and grants available to different sectors of the public for improvements to efficiencies and the creation of the model home. Also the Board appointed the Project Manager of York EEAC as a Non-Statutory Coopted Member of the Board for the life of the topic as a result of the ongoing value of his contributions.
 - Officers from National Energy Action and the EAGA partnership to advise on sources of support to Local authorities for the creation of Fuel poverty strategies and action plans and improvements to LA working on increased thermal efficiencies across all sectors.
 - City of York Council (CYC) Officers Sustainability, Performance Improvements and Equalities submitted early information regarding the sustainability, performance monitoring and equalities aspects of the topic to the Board for their feasibility report.
 - City of York Council (CYC) Officers Asset Manager (Housing Services) and Housing Strategy & Enabling Group Housing Standards & Adaptations presented the Board and sub-groups of the Board with data at meetings regarding the Authorities HECA response, the Annual Housing Business Plan and work with private landlords etc.

Options

- 7. **Either:** To approve the findings and recommendations of the Board in the report at Annex A
- 8. **Or:** To recommend no change to the authority's operations and approach to CO₂ Reduction from Public and Private Sector Housing at this time

Analysis

- 9. The report at Annex A was drafted in line with;
 - a. the objectives of the topic registration as lodged (see Annex B of the attached draft final report)
 - b. findings of the board regarding the advice of the feasibility consultees (see above under 'Consultation')

Corporate Objectives

10. The Scrutiny fits with the aims of the following Corporate Objectives

'Corporate Aim 1: Take Pride in the City, by improving quality and sustainability, creating a clean and safe environment.' With particular reference to:

- 1.2. Protect and enhance the built and green environment that makes York unique.
- 1.4. Protect residents and our environment from pollution and other public health and safety hazards and act as role model in the sustainable use of resources.
- 11. In respect of the Corporate Strategy 2006 2009 this Scrutiny furthers the following Priorities:
 - Improve the actual and perceived condition and appearance of city's streets, housing estates and publicly accessible spaces
 - Improve the health and lifestyles of the people who live in York, in particular among groups whose levels of health are the poorest
 - Improve the life chances of the most disadvantaged and disaffected children, young people and families in the city
 - Improve the quality and availability of decent affordable homes in the city
 - Improve our focus on the needs of customers and residents in designing and providing services
 - Improve leadership at all levels to provide clear, consistent direction to the organisation
 - Improve the way the Council and its partners work together to deliver better services for the people who live in York
 - Improve efficiency and reduce waste to free-up more resources
- 12. Analysis is also given in the Glossary of the report at Annex A regarding the Scrutiny's relationship with the Comprehensive Performance Assessment (CPA) framework.

Implications

- 13. There are no known implications in relation to the following at this stage of the draft final report:
 - Finance
 - Human Resources (HR)
 - Equalities
 - Legal
 - Crime and Disorder

- Information Technology (IT)
- Property
- Other

Risk Management

14. There are no risk management implications associated with the draft final report at this stage.

Recommendations

- 15. Members of the Sub-Committee are recommended to;
 - i. Consider the content, format and recommendations held in this report
 - ii. Agree, subject to any amendments, its submission to SMC in line with their decision to complete outstanding scrutiny topics as a matter of urgency.

Reason

16. To facilitate completion of the former Housing Scrutiny Board's outstanding work.

Contact Details

Tel No. 01904 552066

Author:	Chief Officer Responsible for the report:	
Author's name: Ruth Sherratt	Chief Officer's name: Suzan Hemingway	
Title: Scrutiny Officer	Title: Head of Civic, Legal and Democration	
Dept Name: Scrutiny Services	Services	

Specialist Implications Officer(s)
None

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Wards Affected: List wards or tick box to indicate all

AII √

For further information please contact the author of the report

Background Papers:

Draft Final Report: Reducing Carbon Emissions from York's Public and Private Sector Property
And as listed in the draft final report at Annex A.

Annexes

Annex A Draft Final Report: Reducing Carbon Emissions from York's Public and Private Sector Property .

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ANNEX A

Reducing Carbon Emissions Scrutiny Sub-Committee

Reducing Carbon Emissions from York's Public and Private Sector Housing.



Agreed at The Reducing Carbon Emissions Scrutiny Sub-Committee 5th July 2006

Considered by Scrutiny Management Committee 24th July 2006

Agreed at Executive Date XXXXX

Chair's Foreword

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Summary of Recommendations

- 1. That the Scrutiny Management Committee progress an Ad-Hoc Scrutiny Review of Climate Change Strategies and Action Plans with a view to recommending best practice approaches for the creation and adoption of such a strategy and action plan at the City of York Council.
- 2. That the Sub Committee considering the final report of the former Planning and Transport Scrutiny Board regarding sustainable development be requested to include a recommendation that: The Local Development Framework of City of York Council includes a Calderdale/Merton Style Target requiring developers to ensure that at least 10% of all energy required is provided from renewable sources in all new and significantly refurbished developments up to 2010. Including domestic and with a rising target for onsite embedded renewables (≤ 15% by ≤ 2015, 20% by 2021 etc) thereafter.
- 3. That an appraisal of the authorities capacity to respond to and enforce Parts L and F of the Building Regulations be conducted as a matter of urgency, highlighting any training and resourcing issues that need addressing.
- 4. That the Yorkshire and Humber Assembly be requested by the authority's Elected Member Energy Champion to facilitate region wide BREEAM assessor training for the region's Development Control (and other appropriate) Officers with the aim of reducing costs to individual Local Authorities.
- 5. That the City of York Council commit to adopt standards greater than or equal to Ecohomes Very Good Standards for all its funded housing from the present until April 2008 with a rising target thereafter.
- 6. That as a matter of urgency the Elected Member Energy Champion present a first version of the Regional Assemblies questionnaire to the Executive and thereafter the Regional Assembly, as a record of the authorities position across all sectors to date.
- 7. That the Elected Member Energy Champion present six monthly updates of the Regional Assemblies questionnaire to the Executive and thereafter the Regional Assembly, as a record of the authorities progress on energy across all sectors.
- 8. That the authority adopt a more integrated approach, to recording improvements to LA housing stock utilizing the developing Environmental Management System (EMAS) or similar. That Officers in Housing work with the Authority's Sustainability Officer who should be engaged to advise about targeted improvements in this area and the reporting of targeted outcomes under EMAS.

- 9. That the Housing Strategy & Enabling Group Housing Standards & Adaptations Officer and other officers in housing as appurtenant work with York EEAC officers consult upon, devise and adopt a fuel poverty strategy and action plan for the authority this year. And that the action plan use the Regional Action Plan (Annex C) NEA guidance (Annex F) and above quick step pointers as a steer.
- 10. That the Local Authority ensures that CYC Officer and Member Positions on the Energy Partnership Board are always filled.
- 11. That Annual and inter-year joint working be conducted between EEAC's Local Authority Support Programme Co-ordinator and CYC Housing Officers to ensure renewables are incorporated as part of the HRA Business plan. Consultation should cover improvements scheduled to buildings fabric and/or heating, water systems replacements etc

Summary of Implications of Recommendations for City of York Council

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Human Resources Equalities Legal Crime and Disorder	Implications Recommendation 11.
Human Resources Equalities Legal Crime and Disorder Information	Implications Recommendation 11.
Human Resources Equalities Legal Crime and Disorder	Implications Recommendation 11.

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FINAL REPORT

Other		

Final Report: Reducing Carbon Emissions from York's Public and Private Sector Housing.

Summary

1. Members of the Executive are presented with the final report of the Reducing Carbon Emissions Scrutiny Sub-Committee (formerly Housing Scrutiny Board) delivering their research and findings regarding approaches Local Authorities might take to reducing carbon dioxide (CO₂) emissions from York's public and private sector housing.

Background

- 2. Between 2005 and 2006 Scrutiny¹ at the City of York Council advanced the development more robust and holistic strategic approaches to delivering carbon reduction and energy sourcing. These approaches have covered all sectors of the Council's work bar transportation fuel, including;
 - a. Sustainable Planning Guidance
 - b. Reducing managing and monitoring energy consumption in council property
 - c. Ensuring increasingly sustainable supply and embedded micro-generation in council property
 - d. Street Lighting strategic management & procurement to reduce co2 emissions and waste
- 3. The housing topic², 'Reducing Carbon Emissions from York's Public and Private Sector Property', was chosen by the Housing Scrutiny Board as complimentary to the aims of the other Scrutiny reviews and recommendations supporting the authority to monitor, manage and achieve carbon savings in line with:
 - 1. The Energy Hierarchy (see box below)
 - 2. Future development of a Climate Change Strategy
 - 3. Recent changes to the National Planning Policy framework promoting greater sustainability
 - 4. The Audit Commission's aims for increased sustainable assessment in the Comprehensive Performance Assessment (CPA); for more information regarding Comprehensive Performance Assessment see glossary
 - 5. Gershon efficiencies reporting; for more information regarding Gershon efficiencies see glossary
 - 6. Local Housing Authority obligations under the Home Energy Conservation Act 1995

² See Annex A for the topic registration form

1

Through work of the Boards: Environment and Sustainability and, Planning and Transport

Energy Hierarchy

Sustainable

- Energy conservation (reducing total energy demand)
- Energy efficiency
- Exploitation of renewable, sustainable resources
- Exploitation of non-sustainable resources using low/no-carbon technologies (eg CHP)
- Exploitation of conventional resources as we do now

Unsustainable

WHY WORRY? OR THE VIEW FROM OUT THERE

- 4. Planet Earth, seems a vast, safe and robust mass from the ground, an endless expanse of ocean beneath limitless air, manned space exploration returned cosmonauts and astronauts whose story differed. They described Earth as a tiny blue gem or 'marble' beneath a thin, fragile atmosphere suspended in a silent and endless void.
- 5. Whilst our observatories, signalling and scoping technologies reach ever deeper into space, Earth remains the only planet we know of to harbour life and life is dependant on our fragile atmosphere. Our atmosphere is composed of distinct layers, we can be described as living in the troposphere where the weather i.e. rain, snow etc mostly occurs. Impacts such as the Hole in the Ozone layer³ first recorded by a research group from the British Antarctic Survey (BAS) and Global Warming occur in the stratosphere above this.
- 6. Over the past century, Earth's surface temperature rose by about 1-2 degrees Fahrenheit with accelerated 'global warming' in the past two decades. Evidence indicates that warming over the last 50 years is attributable to human activities altering the chemical composition of the atmosphere and creating a build up of greenhouse gases⁴; including Carbon dioxide (CO₂). CO₂ and other air pollution. In the atmosphere this acts like a thickening blanket, trapping the sun's heat and causing the planet to warm up.
- 7. Astronauts were trained in recent decades to detect major areas of environmental degradation visible from space. Astronaut Eileen Collins expressed concern about environmental damage on earth seen from on board the spaceship *Discovery*,

Stratospheric ozone depletion initially recorded over Antarctica is now seen over the Arctic with associated thinning globally see glossary for more information.

⁴ See Glossary for a definition of Green House Gasses

- ".. you can see how there is erosion, and .. deforestation. It's very widespread in some parts of the world. . . . We would like to see, .. people take good care of the Earth and replace the resources that have been used."
- 8. Nearly half century of evidence shows increasing Amazonian and Congo deforestation each decade, extending silt plumes from major rivers into our oceans and the expansion of the great Sahelian Desert further south into sub-Saharan Africa. Moved by our destruction, astronauts remind us how fragile we are in the vastness of time and space and that this our only home must be cared for now.

Global Warning Signs The Last Decade

- Droughts create severe dust storms and famine across areas of Africa and Asia
- America and Australasia endure their worst wildfire seasons ever.
- Severe floods, including those across our region.
- Heat waves in 2003 cause over 20,000 European in and 1,500 India deaths.
- Tropical forests are dying back. Without them less atmospheric CO₂ is locked up.
- The area of the Arctic's perennial polar ice cap is decreasing by 9% per decade.
- Warmer winters are raising sea levels by melting glaciers and causing early snowmelt.
- The temperature distribution of our Oceans is altering. Tropical storms are picking up more energy category 3 storms are being turned into the more dangerous category 4+ storms. The destructive potential of hurricanes has greatly increased along with ocean temperature changes over the past 35 years.
- Shifts in UK weather patterns are increasing with greater propensity to flooding.
 As the gulf stream conveyor decreases and may potentially even stop⁵ our winter temperatures will plummet.

The overall effects of Global Warming and Ozone Depletion are described as Climate Change.

OUR PLANET

- 9. The first global agreement to restrict CFCs was the signing of the Montreal Protocol⁶. The European Community is stricter agreeing to halt production of the main CFCs from 1995. Tighter deadlines for use of the other ozone-depleting compounds are also being adopted.
- 10. The Kyoto Protocol ammends the United Nations Framework Convention on Climate Change (UNFCCC). Countries ratifying – agreeing and signing up to – the protocol have committed to reduce their emissions of carbon dioxide and five other green houses gasses, and/or engage in emissions trading (see glossary) if they maintain or increase emissions of these gases.

Recent observations show a decrease of 20% since 1950 in the flow of water in the channel between Greenland and Scotland a source of cold dense water that drives the Gulf Stream. Climate models predict continued greenhouse gas emissions will further weaken the stream, potentially making it unstable and likely to shut down completely in the future.

see also glossary

- 11. In working on the progression of this topic the Sub-Committee acknowledged the commitment made by the City of York Council to actions mitigating climate change in signing the Nottingham Declaration⁷; See glossary for more about the declaration. The Sub-Committee believe that the research, findings and recommendations in this report should support the City of York Council to fulfil its declaration commitments.
- 12. In the course of their investigations the Scrutiny Sub-Committee recognised that other authorities around the region have progressed the aims of the Nottingham declaration through the creation and approval of a Climate Change Strategy and Action Plan.
- 13. In view of several Scrutiny Boards work on energy management and CO₂ reduction across most areas of the authorities operations, the Sub-Committee believe it is now an appropriate time to review best practice Local Authority (LA) Climate Change Strategies and actions plans, with a view to the adoption of such a strategy and plan for the City of York Council (CYC). This would provide the authority with a framework for target setting and recording progress against the objective aims of the declaration.

Possible Recommendations

 That the Scrutiny Management Committee progress an Ad-Hoc Scrutiny Review of Climate Change Strategies and Action Plans with a view to recommending best practice approaches for the creation and adoption of such a strategy and action plan at the City of York Council.

OUR NATION

- 14. The largest controllable source of CO₂ emissions is energy generation, 28% of total UK energy consumption and carbon dioxide emissions today are domestic⁸. 80% of energy consumed in households is for space heating and hot water; see Department for Environment, Food and Rural Affairs' (DEFRA) report⁹.
- 15. Between 1990 and 2002, UK household energy consumption rose by 18% contra to a domestic carbon savings target of 4.2 million tonnes by 2010 per annum. DEFRA's report concludes necessary domestic decrease requires approaches to energy efficiency combining insulation and buildings envelope improvement with more innovation in, and take up of, energy-saving products for homes¹⁰.
- 16. The Energy Efficiency Commitment (EEC) requires energy suppliers to achieve domestic energy efficiency promotion targets which can be met by carrying out

For more about the Nottingham declaration please see glossary

See Department of Trade and Industry Sustainable Consumption and Production Indicators - Revised Basket of Decoupling Indicators June 2005

⁹ 'New Sustainable Consumption and Production Indicators' DEFRA 11th April 2005 report outlining progress the UK must make towards economic growth with reduced damage to the environment

See also House of Commons - Environment, Food and Rural Affairs Committee Ninth Report of Session 2004–2005 Volume I 'Climate Change: looking forward' Pg. 32-36 regarding household emissions.

- a combination of approved measures, from installing insulation to providing low energy light bulbs.
- 17. The Home Energy Conservation Act 1995 (HECA) obliges local housing authorities to act and report annually as "energy conservation authorities". Reports must identify measures improving energy efficiency in all residential accommodation – public and private 11. After extension of HECA's scope in 1996¹², the aim was to deliver improved energy efficiency of 30%. DEFRA are clear that HECA contributes to meeting the UK's Climate Change commitments.
- 18. DEFRA and Commons report findings regarding the need to reduce CO₂ from Domestic property are echoed in the Audit Commissions revised CPA and voluntary indicator frameworks¹³; The latter formalizing and covering the delivery of public/private partnership objectives originally agreed at a local level through LA21. The Audit Commissions 'CPA 2005 Key Lines of Enquiry for Corporate Assessment'14 and 'Technical Guide to the Service Assessment Framework (CPA 2005)' is more rigorous in its expectations regarding sustainability and energy, in accordance with Audit's stated aim:
 - .."to cover a more substantial area of the council's environmental service function andtake a broader view of the council's environmental performance"
- Revisions to both frameworks can be seen as promoting devolved delivery of the National Government Sustainable Development Strategy 'Securing the Future 15. Each monitoring framework emphasises the role of Local Authorities as a catalyst and exemplar for better citizens awareness regarding reduced energy use and sustainable energy sourcing. An outline to the key messages of the CPA and Voluntary Indicator frameworks can be found in the glossary.

Fuel Poverty, Thermal Comfort and CO₂ Reduction.

- 20. Households needing to spend above 10% of their income on fuel for all uses, to achieve 'thermal comfort' are 'Fuel Poor', those exceeding 20% of their income are classed as severely fuel poor. The Governments Fuel Poverty Strategy of November 2001 aimed to end fuel poverty in vulnerable homes by 2010 and all homes by 2016; policy aims reaffirmed in the Energy White Paper of Feb. 2003, which set targets to improve energy efficiency by 20% by 2010.
- 21. Climate change will lower UK winter temperatures as the gulf stream conveyor decreases and may stop completely¹⁷. We are no longer self sufficient in gas,

Local Authorities were asked to submit their Ninth Progress Reports to the Secretary of State by 30 September 2005.

to include the identification of measures to improve the energy efficiency of houses in multiple occupation and certain house-boats.

Local guality of Life Indicators supporting Local Communities to Become Sustainable Audit commision August

September 2005 and October 2005

HM Government 2005

Thermal comfort: a satisfactory level of warmth i.e. no less than 21°C in the living room and 18°C in other rooms the level may be higher for the vulnerable or elderly. People with income brackets allowing < 10% spend on fuel for all uses are described as living in 'thermal comfort'.

Observations show a decrease of 20% since 1950 in water flow between Greenland and Scotland a source of cold dense water that drives the Gulf Stream. Climate models predict continued greenhouse gas increases

- oil or coal and international oil reserves are anticipated to run dry in 30-40 years. Insecure fuel supply, rising fuel prices and altered climatic factors are leaving increasing numbers of citizens in health threatening fuel poverty.
- 22. The health impacts of fuel poverty, including excess winter deaths, rising NHS costs (through treating conditions worsened by living in cold and damp), mental health effects (due to not being able to pay fuel bills, debt, isolation and living with poor health conditions) will increase. For more detail regarding the Health impacts of fuel poverty see the recent HACKW report at Annex).
- 23. Progress delivering fuel poverty programmes was eclipsed between 2003 and 2006 by 35% rises in domestic fuel prices doubling vulnerable households in fuel poverty to 2 million. According to the Government's Fuel Poverty Advisory Group (FPAG)¹⁸ increased resources of more than 25%-30% over four years (amounting to about £1bn extra in total) to Warm Front¹⁹ are required to eliminate fuel poverty amongst vulnerable households by 2010. FPAG calls for the Government's to re-affirm its fuel poverty targets in the Energy Review and support policies and funding resources to meet them.
- 24. The Energy Efficiency Partnership 'Homes Fuel Poverty Strategy Group'²⁰ have highlighted the strategic need to support embedded renewable microgeneration as integral to tackling fuel poverty. National Energy Action (NEA) and the National Right to Fuel Campaign (NRFC) believe the impact of fuel prices on fuel poverty will result in more than 1 million households still being fuel poor in 2009, with almost 90% of these being classed as vulnerable. These bodies regard microgeneration as a key remedy in such higher fuel price scenarios.
- 25. Tackling fuel poverty and CO₂ reduction are clearly wedded issues. The responses of Fuel poverty reduction bodies to the relationship between Fuel Poverty and micro generation (previously seen as primarily a CO₂ reduction measure) are summarised in the table below.
 - A. Typical energy efficiency schemes insulation, mains gas central heating installation etc do not benefit many UK properties as construction methods (e.g. solid walls, flat roofs) create 'Hard to Treat Properties' (HTT's). Efficiency measures alone will not alleviate fuel poverty in such homes and alternatives must be sought.
 - B. Proximity to gas networks impacts on fuel poverty; homes that cannot be connected usually rely on more expensive heating methods, such as electricity.
 - C. Microgeneration can alleviate fuel poverty in this context. 'Whole-house' approaches to effective long-term improvements in energy performance and fuel poverty reduction should include strategies promoting microgeneration technologies.

will further weaken the stream, making it unstable and likely to shut down completely. This would mean that less heat is brought to north-west Europe and therefore harsher winters. See also article of the Ocean and Climate Change Institute. http://www.whoi.edu/institutes/occi/currenttopics/climatechange-wef.html

See FPAG 4th Annual Report (March 2006) expressing concern about the effects of high energy prices on fuel poverty

⁽the Government's main fuel poverty programme) announced by the Chancellor in the pre-Budget Report Fuel Poverty Strategy Group response to the responses to a Department of Trade and Industry consultation exercise re the Microgeneration Strategy and Low Carbon Buildings Programme September 2005.

- D. National government should develop 'approved' training courses for each of the microgeneration technologies. Building partnerships, training and advice will drive mass-market transformation and fuel poverty elimination development facilitated by relevant sector skills councils and trade bodies. The Energy Efficiency Best Practice for Homes programme has developed a qualification regarding energy efficient central heating boilers and control systems (now offered as standard training for gas installers). Such approaches must be used to develop skills and regulate training for the microgeneration sector. With a view to inclusion of renewables in the future Warm Front and similar schemes.
- E. Devolved (Regional/Local Government) Administrations should target refurbishment of hard to treat homes with renewables and other innovative low carbon technologies, reducing fuel bills as an objective.
- 26. In brief the Energy Efficiency Partnership 'Homes Fuel Poverty Strategy Group' the NEA and NRFC recommend that national, regional and local microgeneration strategies must address fuel poverty issues, targeting the refurbishment of hard to treat (HTT) homes with renewables and other innovative low carbon technologies. Refurbishment HTT programmes should demonstrate reduced fuel bills promoting the wider application of renewables in future Warm Front activities in recognition of the contribution that microgeneration can now make to delivering 'thermal comfort' or affordable heating for all.
- 27. The National Planning Policy frameworks and buildings regulations were recently amended, again reflecting increased awareness of the need to address climate change, insecurity of fuel supply and fuel poverty. Regional Spatial Strategies (RSS) and Local Development frameworks will be required to incorporate 'Planning Policy Statement 22: Renewable Energy' (PPS22) emphasising the importance of Regional and Local Planning Authorities developing positively expressed policies on integrated renewables.
- 28. National Government recently announced its expectation²¹ that all planning authorities" put in place policies on a par with Merton and Croydon. National clarification of PPS22 wording regarding the wider take-up of Merton-type pro-renewables planning policies emphasised that "It is essential that all planning authorities follow this example and all Chief Planning Officers will be written to urging them to do so".
- 29. Adoption of a Calderdale/Merton Style Target will require developers to ensure that at least 10% of all energy required is provided from renewable sources in developments including domestic up to 2010 with a rising target for onsite embedded renewables (15% by 2015, 20% by 2021 etc) thereafter. This requirement and the associated targets should be explicit in the developing City of York Council Local Development Framework.

²¹ The Minister for Housing and Planning (Yvette Cooper) Written Ministerial Statements *Thursday 8 June 2006* Communities And Local Government PPS22

Possible Recommendations

- 2. That Sub Committee considering the final report of the former Planning and Transport Scrutiny Board regarding sustainable development be requested to include a recommendation that: The Local Development Framework of City of York Council includes a Calderdale/Merton Style Target requiring developers to ensure that at least 10% of all energy required is provided from renewable sources in all new and significantly refurbished developments up to 2010. Including domestic and with a rising target for onsite embedded renewables (≤ 15% by ≤ 2015, 20% by 2021 etc) thereafter.
- 30. In addition to which, recently expedited changes to Parts L and F of the Building Regulations in line with the findings of the Sustainable buildings task group and EU directive developments highlight the importance of establishing practice maximising energy efficiency opportunities prior to integrating or embedding renewable energy within proposals for significant refurbishment and new development. Local authorities will be expected to take a stronger line to enforce standards.
- 31. The Office of the Deputy Prime Minister (ODPM) published their proposals for Code for Sustainable Homes in December 2005 (formerly Code for Sustainable Buildings). From April 2006 the Code applies to all new homes receiving Government funding. It establishes a five star rating system, based on six essential elements, including energy efficiency and use of materials. Minimum standards will need to be achieved for each element, with additional, optional, elements for those developments wishing to achieve higher ratings. The Code builds on the existing EcoHomes standard.
- 32. Housing funded by the Housing Corporation and English Partnerships will be required to achieve a three-star rating equating to EcoHomes Very Good. The Housing Corporation have already committed to the requirement of Ecohomes Very Good on all its funded housing from April 2006 until 2008.

Possible Recommendations

- 3. That an appraisal of the authorities capacity to respond to and enforce Parts L and F of the Building Regulations be conducted as a matter of urgency, highlighting any training and resourcing issues that need addressing.
- 4. That the Yorkshire and Humber Assembly be requested by the authority's Elected Member Energy Champion to facilitate region wide BREEAM and EcoHomes assessor and standards training for the regions Development Control (and other appropriate) Officers with the aim of reducing costs to individual Local Authorities.
- 5. That the City of York Council commit to adopt greater than or equal to Ecohomes Very Good Standards for all its funded housing from the present until April 2008 with a rising target thereafter.

OUR REGION

- 33. With 14.9% of households 'fuel poor', the Yorkshire and Humber Region is the second worst nationally according to the 2001 English House Condition Survey (EHCS). The relationship between regional fuel poverty and HTT homes is highlighted in the Regional Housing Strategy (RHS) of 2005-2021 as housing structures which are difficult to insulate due to solid (single shell) walls and/or location off the gas mains are cited as contributory factors.
- 34. The 2001 EHCS found the average SAP (standard assessment procedure) rating across all stock in the region to be 49.9. The regional aim is to increase the rating across all homes to a SAP 65 by 2016. The Regional Housing Strategy proposes the development of policies, practices, and coordinated investment activity targeted initially at properties with a SAP of less than 30, which are otherwise sustainable. With the aim of reducing the percentage of housing with a SAP of 30 or under in 10 years to less than 1% or 2% in social and private housing respectively.
- 35. Responding to drivers from Government Office, the Region has developed a Regional Fuel Poverty Action Plan (see Annex) as a way to try and solve fuel poverty. Its development marries well with the fact that most authorities in the region (unlike York which will be addressed later in the report) have already developed and adopted a Fuel Poverty Strategy.
- 36. The Draft Regional Spatial Strategy (RSS) or 'Yorkshire and Humber Plan' devolves for incorporation within LA Local Development Frameworks responsibilities for energy²². This states that;

The Region will improve energy efficiency and increase installed renewable energy capacity to at least 708 MW by 2010 and to 1862 MW by 2021. All development strategies, plans and decisions will:

- **<u>A</u>** Improve energy efficiency and maximise the efficient use of power sources by:
 - Requiring orientation and layout of development to maximise passive solar heating
 - Maximising use of combined heat and power systems, especially by development with considerable energy demands
 - Locating development to utilise community heating scheme opportunities near major sources of power generation, especially those at Immingham and near Selby
 - Providing for new efficient energy generation and transmission infrastructure in keeping with local amenity and areas of demand
 - Supporting the use of clean coal technologies and abatement measures
- **B** Maximise renewable energy capacity by:
 - Delivering at least the sub-regional targets for installed renewable energy capacity to 2010 (Humber 124 MW; North Yorkshire 209 MW; South Yorkshire

See The Yorkshire and Humber Plan, Draft for Consultation December 2005: Section15 Environment Pages 214-217

- 47 MW; West Yorkshire 88 MW; other 240 MW) and to 2021 (Humber 350 MW; North Yorkshire 350 MW; South Yorkshire 160MW; West Yorkshire 270 MW; other 690 MW)
- Helping to develop and deliver local authority targets for installed renewable energy capacity to 2010 in line with those provided in table 15.12
- Requiring at least 10% of the energy to be used in sizeable new development to come from on-site RE sources.
- 37. Scrutiny at the City of York Council was instrumental in supporting the Yorkshire and Humber Assembly's production an Elected Member Energy Champions Questionnaire. The Regional Energy Champions initiative aims to engender a better understanding and application of best energy practice and sources of practical and financial help for continuous improvement in this area region wide.
- 38. The City of York Council appointed Cllr. Christian Vassie as its Elected Member Energy Champion at Full Council on 25th May 2006. As a result of this the Scrutiny Sub Committee hope that the initial responses to the Housing Section of the questionnaire (see Annex D) will be completed shortly and presented to the City of York Council Executive and Regional Assembly Energy. In addition to which updated versions of the full questionnaire will be presented to the City of York Council Executive and Regional Assembly Energy on a six monthly basis to support monitoring of improvements.

Possible Recommendations

- 6. That as a matter of urgency the Elected Member Energy Champion present a first version of the Regional Assemblies questionnaire to the Executive and thereafter the Regional Assembly, as a record of the authorities position across all sectors to date.
- 7. That the Elected Member Energy Champion present six monthly updates of the Regional Assemblies questionnaire to the Executive and thereafter the Regional Assembly, as a record of the authorities progress on energy across all sectors.

OUR CITY

- 39. The Performance Improvement Team highlighted the timeliness and particular importance of the City of York Council addressing issues raised in this topic in feasibility return to the former Housing Scrutiny Board. Their response reminding the Board of the corporate CPA assessment / inspection expected in 2007/2008 which will seek to form a view on the following service and policy areas:
 - Condition of LA housing stock (cross tenure fuel poverty, energy and resource efficiency are relevant)
 - Evidence that the council with partners are delivering on a 'clean and green liveability' agenda.

- The topic was also noted as fitting with Corporate Aim 1: '<u>Take Pride in</u> the City', by improving quality and sustainability, creating a clean and safe environment.
- 40. In respect of our city wide performance against monitoring (such as the CPA), legislative (HECA etc) and planning (i.e. PPS 22 etc) frameworks with a bearing on this mater, many weaknesses in the authority's strategic approaches and partnership working became clear during the course of this scrutiny.
- 41. In respect of the Local Authorities own housing stock York's performance can be seen as good with a SAP rating of 66pts; above the national average but not as good as all other councils in the region. In considering the information returned through feasibility analysis the Board recognised the value of work undertaken by the authority to ensure its own housing stock meets required standards of thermal comfort.
- 42. Our private sector performance is however falling below this with a SAP of 44pts and mars our record on HECA reports. Improvements to Thermal Comfort within the Local Authorities own housing stock have been subsequent to achieving decent homes standard rather than strategic interventions with the joint aims of achieving thermal comfort and CO₂ reduction.
- 43. It would be beneficial to the authority to adopt a more integrated approach, to recording improvements which utilized the developing Environmental Management System (EMAS) or similar. The Sustainability Officer for the Authority should be engaged to advise about targeted improvements in this area and the reporting of targeted outcomes under EMAS.

Possible Recommendations

- 8. That the authority to adopt a more integrated approach, to recording improvements to LA housing stock utilizing the developing Environmental Management System (EMAS) or similar. That Officers in Housing work with the Authority's Sustainability Officer who should be engaged to advise about targeted improvements in this area and the reporting of targeted outcomes under EMAS.
- 44. The Authority has neither a Thermal Comfort /Fuel Poverty Strategy or Action Plan in conjunction with rising energy prices may mean in real terms that the authorities position is now no better than it was some three to four years ago; a snap shot of mapped thermal efficiency giving detail regarding this can be found at Annex E.
- 45. A holistic approach to improving thermal comfort and sustainability in relation to domestic energy procurement, in all (including non-LA) housing stock needs to be adopted by the authority in partnership. Relevant partners i.e. the Energy Efficiency Advice Centre, Primary Care Trust, Health Authority, Private Landlords including Universities and National Energy Action need to be consulted (see Annex F NEA process outline) to create a holistic response to

- fuel poverty reduction and improved public health and the associated need for CO₂ reduction in response to climate change.
- 46. The authorities Equalities Officer also advised the Board that the absence of a fuel poverty or thermal comfort strategy may prohibit the authorities capacity to meet the equality concerns raised by the community and hence to achieve the Equality Standard.
- 47. Inequalities in housing both mirror very closely, and exacerbate, other inequalities in society. Disabled people, elderly people, black and minority ethnic people, young people, single parents etc are more likely to live in poor standard accommodation with poorer energy efficiency. The Officers considerations being based upon consultation undertaken by the authority with community groups (as part of its work to implement the Equality Standard) which has highlighted many equality issues around housing and poverty related to the topic. The Equalities Officer hoped that recommendations would incorporate strategies making advice and support regarding improved thermal comfort accessible and inclusive to all sections of the community.
- 48. The former Housing Scrutiny Board felt one of the biggest issues facing the citizens in respect of carbon reduction was understanding what a low emmisive home was comprised of. A notional model was created (in collaboration with Officers from York's EEAC) emphasising measures which could be taken to move existing homes towards the ideal; i.e. without major reconstruction of the buildings fabric. See 'SKETCHING the ENERGY EFFICIENT HOME How to make a Normal Home a Greener Cleaner Home'. Annex G of this report.
- 49. In order to help assess the effects of more concerted education/marketing regarding advice to citizens the Board felt the following actions might be helpful;
 - a. Do a scaled down version of the paper (4 x A4) for delivery as leaflets direct to householders in one or two of York's most thermally poor Wards as a pilot with a view to explicitly monitoring any improvements in grant take up returns through EEAC. (to be done)
 - b. ensure that the fuller version of the report is annually refreshed with the support of EEAC and kept as a data source on the council's website. (to be done)
 - C. Contact Elected Members to request a short notice in their Ward Newsletters encouraging people to take up the advice and grants available through EEAC. Newsletters including this at the Boards request; Fishergate Jan 2006, Heslington and Fulford Jan 2006, Holgate February 2006, Strensall, Towthorpe, Earswick & Stockton on the Forest February 2006, Dringhouses & Woodthorpe February 2006.
 - d. Request that the Deputy Chief Executive send an all staff Email out advising of the same information, this was done first week of December 2005.
 - e. Ensure that Streets Ahead (the Council Housing Magazine) incorporates an article on Energy Efficiency Advice

50. As a result of completing limited actions c, d and e Colin Eastwood, Project Manager Energy Efficiency Advice Centre (EEAC), ²³ reported a vast increase in the level of customer contact, and resulting grant take up, with and through the local (EEAC). Further consultation by the Board with the Project Manager EEAC, National Energy Action and the Regional Assembly's Energy Policy Manager quickly led to a series of quick step actions that the authority might use as the basis of a fuel poverty action plan. These are tabulated below;

ACTION	WHO	WHEN
Annual refreshing of 'Sketching the Energy Efficient Home' for posting on the council's website with links to Sustainability content and Housing content of the site and reciprocal links to EEAC.	Housing Officers + EEAC personnel	April or as near to date of established annual grants funding changes
Possible short leaflet version of 'Sketching the Energy Efficient Home' for delivery direct to householders in Wards and/or for placement in Doctors Surgeries and other appropriate community locations etc.	Housing Officers +Marketing and Communications EEAC personnel, Health Authority, PCT	Devise Summer roll out Autumn
Short 'Winter Warmer' notice in Ward Newsletters and or Your City, encouraging people to take up the advice and grants available through EEAC.	All Elected Members, Neighbourhood Pride Team, Marketing and Comms, EEAC personnel,	August/September for phased roll out in letters October through February
Pre-Ward Meeting Information sessions or Energy Bingo Games including give aways – low energy light bulbs, hot water tank jackets sponsored by Power providers	All Elected Members, Neighbourhood Pride Team, Energy Providers, EEAC personnel,	At Ward Members choice in consultation
Single Paragraph Advice	Payments	October and March

Co-Opted Member of the Housing Scrutiny Board, Project Manager York, North Yorkshire and East Riding Energy Efficiency Advice Centre (EEAC)

link to EEAC in the advertising/information boxes on Council Payslips	Manager, Resources, EEAC personnel,	
All staff Winter Warmer reminder Email encouraging staff to get the messages to friends and neighbors	Director Of City Strategy. EEAC personnel,	Late November
Benefits Section to facilitate York Energy Efficiency Advice Centre information being enclosed in benefits mail outs. To include a tick box on benefits forms giving claimants the option of been contacted by the Advice Centre if and when applicable grant funding or relevant information became available.	Payments Manager, Resources, EEAC personnel,	To be determined in consultation

51. In respect of the National and regional drivers and their findings and testing of improvement methods the former Housing Scrutiny Board believe that it is now imperative that the authority consult upon devise and adopt a fuel poverty strategy and action plan and ensure that the authorities relations with EEAC are built upon and consolidated.

Possible Recommendations

- 9. That the Housing Strategy & Enabling Group Housing Standards & Adaptations Officer and other officers in housing as appurtenant work with York EEAC officers consult upon, devise and adopt a fuel poverty strategy and action plan for the authority this year. And that the action plan use the Regional Action Plan (Annex C) NEA guidance (Annex F) and above quick step pointers as a steer.
- 10. That the Local Authority ensures that CYC Officer and Member Positions on the Energy Partnership Board are always filled.
- 52. To date The authority has not done any work in respect of improving sustainable sourcing in relation to domestic energy procurement; i.e. microgeneration from embedded renewable sources in its own housing stock. Nor has it taken a strategic stance on the education and support to achieve annually increasing levels of embedded renewable microgeneration in private

- sector stock. In respect of this the authority area has fallen behind its regional peers²⁴.
- 53. Authorities such as Kirklees, Harrogate, Bradford and Leeds have achieved significant microgeneration retrofit and new builds within their housing stock. In no small part by capitalising on established positive relations with their Energy Efficiency Advice Centres (EEAC) developed through delivery of Fuel Poverty Strategies. These have then been extended to ensure EEAC's are consulted annually in respect of proposals for upgrading of heating systems, thermal efficiency measures and other buildings fabric improvements prior to recording within Housing Revenue Account Business Plans.
- 54. This form of consultation has allowed EEAC's and Local Authorities to target grant funding streams and retrofit renewable microgeneration sources into domestic stock. This in turn has facilitated authorities such as Kirklees which is seen Nationally as exemplary in this field to aim for targeted levels of installation recorded under the Environmental management system EMAS.
- 55. To date the City of York Council has not adopted such a strategy. As a result of the Board's scrutiny however, some preliminary exploratory meetings have taken place between the Head of Housing Services and the EEAC Project Manager.
- 56. The Head of Housing Services agreed to look into possibilities for replacing (at end of life) standard boilers with heat pumps where this may be cost effective to the Authority and tenant. Although this situation used to be rare where properties have mains gas connections, it will need to be increasingly considered in reflection of rising fuel prices and will almost certainly prove the best cost benefit fit where off gas network properties are under consideration.
- 57. EEAC have committed to keeping The Head of Housing Services fully up to date as to Energy Efficient Commitment funding and other funding streams including regional available for heat pumps and other possible microgenerative alternatives as schemes change in 2006. In this way the authority should be better able to capitalise on funding streams available to it.

Possible Recommendations

11. That Annual and inter-year joint working be conducted between EEAC's Local Authority Support Programme Co-ordinator and CYC Housing Officers to ensure renewables are incorporated as part of the HRA Business plan. Consultation should cover improvements scheduled to buildings fabric and/or heating, water systems replacements etc

See 'Mapping Renewable Exemplars – York's And Humber', (provided at by the Environment and Sustainability Scrutiny Board, in respect of the known domestic microgeneration showing increasing levels of LA domestic stock retrofit and new build installation at other authorities within the region.

Final Comments from the Board

The Housing Scrutiny Board/Reducing Carbon Emissions Sub-Committee would like to acknowledge the invaluable assistance of a number of people for their technical support and advice to the Board throughout various points of the Scrutiny. The Board extends its thanks to each of those listed below.

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Mark Grandfield Asset Manager (Housing Services)

Ruth Abbott Housing Strategy & Enabling Group - Housing Standards &

Adaptations

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Energy Efficiency Centre

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Members of the Housing Scrutiny Board/ Reducing Carbon Emissions Sub-Committee Scrutiny Sub-Committee July 2005- 2006

Chair Cllr. Ceredig Jamieson Ball

Vice Chair Cllr. Bill Fairclough

Cllr. P. Blanchard Cllr. Janet Greenwood Cllr. David Horton Cllr. Mark.Hill

Cllr. Madeleine Kirk Cllr. David Livesley

Co-Opted Member Colin Eastwood

Co-Opted Member Alderman Jack Archer

Co-Opted Member Mildred Grundy
Co-Opted Member Pat Holmes

Background Papers & Publications

Title and Author(s)

CPA 2005 Key Lines of Enquiry for Corporate Assessment (KLOE).

DIRECTIVE 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE)

Draft Environmental Policy And Update On Preliminary Review For The Environmental Management System (Ems).

Environment and Sustainability Scrutiny Board - Energy Use In Council Buildings

Environment and Sustainability Scrutiny Board - Generating the Future

Feedback on the Consultation Exercise for the Best Value Performance Indicators for 2005/2006

Home Energy Conservation Act 1995

Local Quality of Life Indicators – Supporting Local Communities to Become Sustainable

Planning for Renewable Energy A Companion Guide to PPS22

Planning Policy Statement 22: Renewable Energy

Regional Housing Strategy

Releasing resources to the front line Independent Review of Public Sector Efficiency Sir Peter Gershon, CBE

Publisher and Date

Audit Commission Sept 2005

Official Journal of the European Union 13th Febraury 2003

CYC Environment & Sustainability EMAP 20th April 2004

CYC Executive 2nd Feb

2005

January 2006

ODPM May 2005

Crown Copyright

ODPM, LGA, DEFRA, AC

August 2005

ODPM 2004

ODPM 2004

Yorkshire and Humber

Assembly

Crown Copyright July 2004

Title and Author(s)

Review of Sustainable Energy - Beacons sustainable energy theme

Publisher and Date
June 2005
I&DeA Learning Pages

Glossary

Broad Leaved Native Trees

Broad Leaved native Trees would generally be agreed to be species of Deciduous (trees which loose their leaves in winter) trees which have grown in England since the last Ice Age. The below list is not comprehensive but provides a guide;

Alder (Alnus glutinosa), Ash (Fraxinus excelsior), Aspen (Populus tremula), Bay Willow (Salix pentandra) Beech ** (Fagus sylvatica), Bird Cherry (Prunus padus), Black Poplar (Populus nigra var betulifolia), Broad-leaved Lime ** (Tilia platyphyllos), Crab Apple \cong (Malus sylvesteris), Crack Willow (Salix fragilis), Downy Birch (Betula pupescans),

English Oak (Quercus robur), Field Maple (Acer campestre), Goat Willow (Salix caprea),

Hawthorn ≅**(Crataegus monogyna) and Midland Hawthorn≅ (Crataegus oxyacantha),

Hazel≅ ** (Corylus avellana), Hornbeam (Carpinus betulus), Rowan ≅(Sorbus aucuparia), Sessile Oak (Quercus petraea), Silver Birch≅ (Betula pendula),

Small-leaved Lime (Tilia cordata), Service Trees (Sorbus domestica and Sorbus torminalis), White Willow (Salix alba), Whitebeam (Sorbus aria).

Wild Cherry (Prunus avium), Wych Elm (Ulmus glabra)

Suitable for smaller gardens

** Suitable for Hedging or pleatching

CARBON MONXIDE: Poisoning and Prevention

Carbon monoxide (CO) is a poisonous gas, which may be given off by heating - both fixed and portable appliances - or cooking appliances that use gas, coal, wood or oil, if they're not working properly, if the flue is blocked in any way, or if the room is not properly ventilated.

More than 50 Deaths from accidental domestic carbon Monoxide poisoning occur in the UK each year. Carbon Monoxide gas has no smell, no colour or taste and this makes it particularly dangerous.

To avoid accidental death through Carbon Monoxide poisoning people should do the following things as a minimal precaution;

Households with a gas boiler or heating system should be serviced every year

Chimneys should be swept, even if the fire is not in regular use, every year

Fit Carbon Monoxide detectors, these should comply with British Standard BS 7860 – a Carbon Monoxide detector is a warning device not a substitute for regular servicing.

In rented accommodation

The Gas Safety (Installation and Use) Regulations 1998 place a duty on landlords to make sure that appliances and flues are kept in good order and checked for safety at least once every 12 months. Landlords must also keep a record of previous safety checks and issue the current record to the tenant.

Tenants moving into new accommodation should:

Demand to see a copy of the current record of safety checks carried out.

Ensure that safety checks were carried by a CORGI-registered engineer.

Not use any gas appliances which they think may be unsafe.

Not attempt do-it-yourself work on appliances.

For more information about Carbon Monoxide in Homes please see the Department of Trade and Industry web site

www.dti.gov.uk/homesafetynetwork/cm intro.htm

ChloroFluroCarbons (CFC's)

A common industrial product, used in refrigeration systems, air conditioners, aerosols, solvents and in the production of some types of packaging. Although chemically inert in the lower atmosphere (troposphere), they are taken to very high altitudes where they are broken down into their components by the stronger sunlight (UV) at these altitudes. It is the chlorine formed in this process that causes the damage to ozone. The manufacture and use of CFCs in industry has been severely curtailed following the Montrol Protocol and subsequent amendments.

Local Authorities must show performance or delivery of priorities agreed by the ODPM's Central and Local Government Partnership. The priorities are expressed as 5 sub-themed themes in the Key Lines of Enquiry. Themes have criteria for judgement at Level's 2 and 3 (where 3 shows the greater commitment). Sub-theme 5.1.2 has particular reference to housing and the criteria for judgement at Level's 2 and 3 of 5.1.3 widen encompass an Authorities own policy and monitoring framework, the Planning Authority role and the role of authority as exemplar. Sub Themes 5.1.2 and 5.1.3 with the associated criteria for judgement are copied below.

5.1.2 Asks what the council, with its partners, has achieved in its ambitions and priorities for the local housing market: Level 2:

The council's various policies on fuel poverty, energy efficiency, health inequalities and community safety are achieving improvements but would benefit from being more consistently applied across tenures. There is work going on for outcomes in these areas to be more sustainable, with more efficiency savings and improved procurement practices.

Level 3:

The council is able to demonstrate that there are sustainable policies and practice where relevant across all tenures to address issues such as fuel poverty, energy and resource efficiency, health inequalities, and community safety. Outcomes in these areas will not only be reflected in sustained improvements to people's quality of life but can also be quantified in terms of efficiency savings and improved procurement practices.

New housing is more sustainable in terms of construction, location, maintenance, and running costs. It is appropriate in size, scale, density, design and layout. It is also accessible, affordable and sufficient green space is provided.

5.1.3 Asks what the council, with its partners, achieved in its ambitions for the local environment, can the council evidence that working in partnership with others, it has established and is delivering on its clean and green liveability agenda the

CPA

council, working in partnership with others, has contributed to ensuring environmentally sustainable communities and lifestyles.

Criteria for Judgement:

Level 2:

The council is addressing the quality of design in buildings and public spaces and is addressing these matters in its local development plans. There has been some increase in the proportion of new developments (for example, public buildings, housing, fixed infrastructure) which mitigate the effects of, or adapt to the impact of, climate change during planning, design and construction.

The council is setting a positive example to others through its environmental management practices

Level 3:

The council has reduced its own resource consumption significantly and is able to quantify the cost of these and the environmental impact these policies have had.

The council is effectively addressing significant local and global environmental issues and actively communicating environmental issues to the wider community

Buildings and open spaces are designed to a high quality and this is addressed in the local development plans. There has been a sizeable increase in the proportion of new developments (for example, public buildings, housing, fixed infrastructure) which mitigate the effects of, or adapt to the impact of, climate change during planning, design and construction.

Emissions trading

Emissions trading is an attempt to reduce the environmental cost of pollution control by providing economic incentives for measurable reductions in emissions.

A central authority, such as an air pollution control district or a government agency, sets limits or "caps" for each type of pollutant, recognizing that clean air is a joint resource. Groups that intend to exceed the limits may buy *emissions credits* from those who will stay below their designated limits; this transfer is normally referred to as a trade.

Green House Gases

The six key gases, identified as accelerating global warming due to human production, use and emission into the environment; carbon dioxide(CO₂),

methane,

dinitrogen (nitrous) oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆)

Carbon dioxide (CO₂) accounts for the greatest proportion of greenhouse gas emissions in the UK.

Halocarbons

A class of halide (i.e. containing Chlorine, Bromine or Iodine) compounds, including CFC's. These can break down to form various ozone-depleting radicals.

Kyoto Protocol

An international agreement setting targets for industrialised countries such as the UK to cut their greenhouse gas emissions. The protocol

was agreed in 1997, based on principles set out in a framework convention signed in 1992.

The Kyoto Protocol became a legally binding treaty on 16 February 2005 having been ratified by 55 nations.

Montreal Protocol

A convention signed in 1987 by many countries to greatly reduce the production and use of CFCs responsible for damage to the ozone layer with the aim to reduce them by half by the year 2000. Since 1987, further amendments to the protocol have imposed greater restrictions on the production and use of potentially damaging compounds. The main CFCs will not be produced by any of the signatories after the end of 1995, except for a limited amount for essential uses, such as for medical sprays.. Two revisions of this agreement have been made in the light of advances in scientific understanding, the latest being in 1992. Agreement has been reached on the control of industrial production of many halocarbons until the year 2030.

Nottingham Declaration

In 2000 Nottingham City Council hosted a conference on climate change to launch a declaration which has been signed by over 80 local authorities in the United Kingdom (number as at November 2004). The full wording of the declaration is copied below.

Ozone (O₃: 3 oxygen atoms)

Ozone occurs naturally in the atmosphere and forms a layer in the stratosphere, thinnest in the tropics (around the equator) and denser towards the poles. It is created when ultraviolet radiation (sunlight) strikes the stratosphere, dissociating (or "splitting") oxygen molecules (O2) to atomic oxygen (O). The atomic oxygen quickly combines with further oxygen molecules to form ozone. **Ozone depletion** is mainly due to the release of manmade chemicals containing chlorine such as CFC's (ChloroFluoroCarbons), bromine containing compounds, related halogens and Nitrogen oxides;. Ozone depletion has a major effects upon us and our planet, even a small amount of loss to the ozone layer, means more ultraviolet light (UV-B) from the sun reaches the Earth. For each1% of the ozone layer depleted, 2% more UV-B reaches the surface of the planet. UV-B increase is one of the most harmful consequences of ozone

depletion because it can cause skin cancer. The US Environmental Protection Agency estimates that 60 million people born by the year 2075 in America alone will get skin cancer due to ozone depletion and that one million of these people will die, in addition it estimates 17 million more cases of cataracts can also be expected in the US alone

Voluntary Indicator Framework

The March 2005 UK Government Sustainable Development Strategy 'Securing the Future' incorporates the August 2005 ²⁵ guidance to monitoring, and complimentary indicators for Local Authorities and Local Strategic Partnerships, entitled 'Local Quality of Life Indicators – Supporting Local Communities to Become Sustainable'.

Drafted with reference to National Local Authority monitoring indicators drawn up under the LA21 process the indicators are recommended for adoption to extend or widen the ethos of the CPA framework to cover an authorities partners and partnership working.

Whilst the indicators are at present voluntary – i.e. non-statutory – in fleshing out the statutory indicators they "..help (LA's/LSP's) monitor the effectiveness of their Sustainable Community Strategies.." There is a strong suggestion that they may become obligatory in the near future. Indicators 24, 25 and 26 relating to energy and emissions are copied below.

- Levels of key air pollutants.
- Carbon dioxide emissions by sector and per capita emissions.
- Average annual domestic consumption of gas and electricity (kwh)

²⁵ Audit Commission, DEFRA, ODPM and Local Government Association

See Page 16 'Local Quality of Life Indicators – Supporting Local Communities to Become Sustainable'.



ANNEX A SCRUTINY TOPIC REGISTRATION FORM

SUGGESTED TITLE OF TOPIC

Reducing Carbon Emissions from York's Housing Public and Private

ABOUT YOU Please fill in as many of the details as you are able to.

Title (delete as applicable):

Other please state Cllr

First Name: Mark	Surname: Hill
Address:	Daytime Phone: 01904 636239
Yorkshire Green Party 7 Reginald Grove York	Evening Phone: 01904 672489
YO23 1L	Email:

Are You (delete as applicable)

- A Resident of York
- A Visitor
- A City of York Councillor

 YES
- A City of York Council Employee
- A Representative of a Voluntary Organisation or Charitable Trust (if YES please tell us the organisations title and your relationship to the organisation below)
- Other (please comment)

ABOUT YOUR PROPOSED TOPIC

Please write your responses to as many of the questions below as you are able to.

WHY DO YOU THINK THIS TOPIC IS IMPORTANT?

Housing is the single largest source of CO2 emissions. The Council has significant housing stock, strong links with local Housing Associations and some powers over private sector landlords. Its powers and links could make a significant difference.

DO YOU KNOW IF THIS TOPIC IS IMPORTANT TO OTHER PEOPLE? IF SO, WHO AND WHY?

Tenants, Council, HA and private could benefit from warmer homes

WHAT DO YOU THINK SCRUTINY OF THIS TOPIC MIGHT CHANGE, DO OR ACHIEVE?

Carbon Dioxide emissions should fall.

Homes should be warmer.

Energy costs should fall, while expenditure on local insulation installers should rise.

DO YOU HAVE IDEAS ABOUT THE APPROACH SCRUTINY MEMBERS MIGHT TAKE TO YOUR SUGGESTED TOPIC?

Evidence from energy efficiency office, Housing Associations, Federation of Private Landlords, University etc.

WOULD YOU BE HAPPY TO TALK TO SCRUTINY MEMBERS ABOUT YOUR PROPOSED TOPIC AT FORMAL MEETINGS?
Yes

PLEASE ENCLOSE ANY SUPPORTING DOCUMENTS OR OTHER INFORMATION YOU FEEL MIGHT BE USEFUL BACKGROUND TO THE SUBMISSION OF THIS TOPIC FOR CONSIDERATION.

For Scrutiny Administration Only

Topic Identity Number 113

Date Received 11 March 2005

SC1- date sent

Initial analysis on the Health Action Calderdale Kirklees and Wakefield **Project (HACKW)**

















Primary Care Trust



Wakefield West





Primary Care Trust

Primary Care Trust

Huddersfield Central NHS Primary Care Trust







JUNE 2005

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Health Action Calderdale Kirklees Wakefield (HACKW).

Introduction.

This report is a result of a snapshot analysis on the HACKW beneficiaries, which gives an opportunity to examine some of the additional benefits of this type of project. Participants were asked by questionnaire on issues such as health benefits and general well being. The results have been reported including a brief synopsis of other related research projects.

Purpose.

The purpose of this initial study is to obtain rapid feedback of the effectiveness of the scheme and to help direct a possible future study that would be more rigorous.

Project Summary.

This project delivered carbon savings and improved the health and well being of vulnerable private householders with a cold related illness. On referral by a health professional free installation of insulation and heat recovery ventilation measures were installed. This project directly addresses PCT interest in reducing health inequality.

Feasibility Study Results.

The Health Action Calderdale & Kirklees (HACK) project, which ran from October 2001 to March 2003, was treated as a feasibility study for the purposes of this project. It delivered 548 measures to 250 properties in Calderdale and Kirklees giving annual carbon savings of 215 tonnes, with 84% of householders reporting that their homes were warmer and over 50% reporting an improvement in their medical condition.

The HACKW project, which is running from April 2004 to Jan 2006, has delivered 683 measures to 343 properties in Calderdale, Kirklees and Wakefield giving annual carbon savings of 87 tonnes, with 85% of households reporting that their homes are warmer.

Target Audience.

The target audience identified from the feasibility study is private householders in the categories below who suffer from, or are at risk of, a cold related illness. This was confirmed by a health professional in the following categories:

• People not eligible for Warmfront (i.e. people over 60 / with young children but not on an income related benefit / disabled under 60

The feasibility study identified that those in the target audience are often ineligible for the Warmfront scheme. As such the potential market is large and as the product is free in line with the principles of the health service no price barriers exist. Therefore, an excellent conversion rate of 100% take up of the grant funds occurred. The project is still attracting small amounts of additional funds from various sources in relation to the original funding.

Planned Carbon Reduction Measures.

The main energy efficiency measures were, cavity wall insulation, loft insulation, heat recovery ventilation, hot water tank jacket and draft proofing.

Access to the Scheme.

Obtaining referrals solely from GPs proved problematic and not wholly reliable. In response to this, an innovative approach was taken to obtain endorsed health referrals through leads generated by community groups including Groundwork and Age Concern working along with community based health practitioners and community nursing staff. Using this range of partners to generate referrals was unique. It was more appropriate as these people are more likely to see people in their homes that are GP's.

Complementing ongoing health projects to tackle respiratory illnesses such as smoking cessation, relevant health staff involved in the referral process will be able to advise householders on appropriate lifestyle changes.

An additional innovative feature was to assess the situation in a more holistic way and offer steam cleaning of carpets and soft furnishings in the bedroom of asthma suffers where a heat recovery ventilation unit has been installed.

Delivery.

The lead partner, Kirklees Energy Services (KES) - the local EEAC had overall responsibility for the project, including management, delivery and monitoring of the project. The three local authorities, KIRKLEES M.C. WAKEFIELD M.D.C. and CALDERDALE match fund the bid, promoted and raised awareness of the project to the appropriate personnel of other partners and disseminated information throughout the community. The six partner PCTs supported and encouraged appropriate health referrals for the scheme. Community partners, including Age Concern and Groundwork used grass roots connections to promote and raise awareness of the scheme.

Methodology/sample.

The health questionnaire was sent out to anyone who had a completed HACKW job before 1st Dec 2004.

A sample of 140 participants was therefore chosen based on having the installed measures in place before the onset of a cold winter period. The majority were therefore taken from a period 1st April 2004 to 1st Dec 2004. (Response rate was 73%)

The participants were sent a questionnaire (see appendix)

Limitations.

The limitations of this type of analysis are apparent when analysing the responses. The questions are mainly based on perceptions and although some of the responses are conclusive there is a lack of empirical data, which can be provided by the health professionals to support the anecdotal evidence provided by the participants.

With many of the participants having life long illnesses, a reduction in visits and use of medication would not be appropriate although the overwhelming majority felt that their well being and cold related illnesses had improved.

The results also show that although nearly 56% had noticed a reduction in bills, many of the participants were on schemes where a fixed amount was paid. E.g. participating in the stay warm scheme. Some participants had not received a bill yet and could not comment. Most participants had experienced an increase in energy prices, which made it harder to come to a conclusion on the fuel cost benefits of the scheme.

Similarly many participants were entitled to free prescriptions and would not notice a reduction in cost of medications. Some participants also had illnesses that are progressive and hence a reduction in visits or prescriptions would not be noticed.

Findings.

Research on 102 out of 140 of the HACKW participants questioned who have experienced a winter after the new measures has shown the following results: -

- 78% felt that their medical condition improved after the measures.
- 94% noticed an improvement in the warmth of their dwelling.
- 56% noticed a decrease in their bills despite fuel price increases.
- 24% use less medication as a result (Many have life illnesses which require continuous use).
- 30% have noticed less need to visit their GP as a result of improved medical condition after the measures. (Many have life illnesses, which require regular visits).

Conclusions and Recommendations.

The HACKW scheme is an Energy Saving Trust (EST) Innovation project. The EST is eager to see that projects funded under this programme are sustained. Consequently we would like to work towards mainstreaming of the scheme.

The findings suggest that further research should be carried out, however KES do not have the expertise or the authority to undertake this task and is seeking the help of the Directors of Public Health in this respect.

Ideally we would like to make use of the expertise within the PCT's to conduct this evaluation. We would be willing to apply for any additional funds to conduct the work.

In addition to contributing towards the case for mainstreaming of the HACKW scheme, the evaluation study could also prove useful in informing policy on cold related illnesses.

Current related research

Met Office "Health Forecasting" (www.metoffice.gov.uk/health)

The Met office has conducted some research with 8 Strategic Health Authorities and 8 Met Office service Developers (see appendix 4), on the effects on front line service demand in relation to temperature variation. It has been well documented that for every 1 degree drop in temperature which results in an increase of deaths, more medical admissions, increased exacerbations and costs to the NHS (See appendix 5 & 6) It has also been observed that cold snaps lead to increased COPD (Chronic Obstructive Pulmonary Disease) admissions, peaking 1-2 weeks later (See appendix 7 & 8)

- A PCT serving a population of 250,000 will have about 14,200 GP consultations every year for people with COPD.
- 680 patients will be admitted to hospital, accounting for 9800 bed days.
- Admission costs about £1700
- GP Consultation costs £56
- Cold snaps lead to increased COPD admissions, peaking 1-2 weeks later and there is a lag for respiratory deaths peaking at 12 days.
- In COPD patients' cold bedroom temperatures are related to the development of a 'cold' and an exacerbation. This may be related to cooling of nasal passages.
- There is good evidence that cold houses cause increased mortality across all social classes. Indoor temperatures are related to respiratory deaths.

Evaluation of Alpine TreatmentAlpine Environments

www.alpine-environments.co.uk

The **HACKW** project was further enhanced by offering steam cleaning of carpets and soft furnishings in the bedroom of asthma suffers where a heat recovery ventilation unit has been installed. The following research was conducted by Alpine one of the providers of this service to the scheme in partnership with **South Leeds PCT** and **Leeds City Council**.

Alpine Environments are dedicated to helping families who suffer from asthma, triggered by the indoor environment. Asthma affects a high proportion of people throughout the United Kingdom. In addition to almost daily medication and regular visits to GPs some patients require hospitalisation and regrettably there are a number of fatalities each year.

Asthma is detrimental to a person's health and well being and is likely to have an adverse affect on their attendance at their place of employment or education. This has been observed as part of multiple deprivations relating not only to health but also to other factors such as Fuel Poverty. Room and outdoor temperature has also been seen to cause exacerbations as described in the **Met Office** "Health Forecasting" research.

Several causative factors have been identified. House dust mites being one of the most common sources of indoor allergens are a cause of symptoms in allergic asthma. We at Alpine have a clinically proven method of eradicating the house dust mite and denaturing its harmful allergens without the use of drugs or chemicals.

Alpine not only created a low allergen home with their unique method of heat, steam, time and temperature to the patients beds but also by installing heat recovery ventilation systems, drop the humidity level to 55% to ensure the house dust mite cannot re-infest. In essence they created a sanctuary for the patient to enjoy. The heat recovery units also ensured that wasted heat, which would be normally lost, was utilised.

Several homes have been treated in South Leeds. Results to date are very encouraging showing reduced dependant on medication, better school attendance and an improved quality of life. The projects to date demonstrate that the scheme is viable and makes a contribution to health and well being of the clients.

The project supports and sign posts other health and well being initiatives particularly focusing on fuel poverty. Similar schemes are about to commence in Newcastle and Kent. We are hoping to extend all projects with the ultimate aim that the process is recommended as an adjunct to reduced reliance on medication.

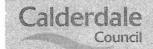
For copies of the clinical trial or further information By e-mail elumley@alpine-environments.co.uk

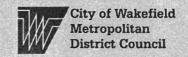
Tel: Office: 0113 200 8210/ 0113 200 8225 / (Free phone 0800 281 286)

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Appendix 9. Partner Roles

Partner organisation	What was their role or intended role?
Kirklees Energy Services (KES)	Lead Partner responsible for overall project management including delivery and monitoring. KES is the Energy Efficiency Advice Centre for Kirklees, Calderdale & Wakefield.
Calderdale Council	Lead Council responsible for promoting project within Calderdale and passing referrals to KES
Kirklees Metropolitan Council	Responsible for promoting project within Kirklees and passing referrals to KES
Wakefield Metropolitan District Council	Responsible for promoting project within Wakefield and passing referrals to KES
Calderdale PCT	Responsible for endorsing referrals in terms of health benefits – endorsement by a range of health professionals
North Kirklees PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
South & Central Huddersfield PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
Wakefield East PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
Wakefield West PCT	Responsible for ensuring appropriate referrals in terms of health benefits by a range of health professionals
Age Concern Calderdale	Additional promotion of the project in the Calderdale area.
Age Concern Kirklees (North)	Additional promotion of the project in the Kirklees area.
Age Concern Kirklees (South)	Additional promotion of the project in the Kirklees area.
Age Concern Wakefield	Additional promotion of the project in the Wakefield area.
Groundwork Wakefield	Additional promotion of the project in the Wakefield area.







Health Action Calderdale, Kirklees & Wakefield (HACKW) REFERRAL FORM

Name:	
Postcode:	Tel No:
I give permission for details of ho	w my health is affected by cold and/or damp conditions to
be disclosed on this form	
Signed:	
Date:	
To be completed by a health p	rofessional
Brief description of how cold living property	g conditions/poor ventilation affects the people living in the
	Place of Work:
Contact telephone number:	
Signature:	

Energy Saving Trust

Please return to: ENERGY EFFICIENCY ADVICE CENTRE

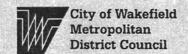
FREEPOST NEA10014 HUDDERSFIELD

HD1 1TG

Tel: 0800 052 7496











IS YOUR HOME

AND

WOULD YOU LIKE INSTALLING?

You may be eligible for draughtproofing, loft insulation, cavity wall insulation and heat recovery ventilation (for respiratory illnesses), installed by professional installers, under the 'HACKW' scheme completely **FREE OF CHARGE**

Overleaf is a referral form which has to be completed by a health professional - your health visitor, practice nurse, midwife etc. Send it back to us (FREEPOST) and we will make the necessary arrangements for you

Its as simple as that



'HACKW' is funded by the Energy Savings Trust and Calderdale, Kirklees and Wakefield Councils, & supported by the Primary Care Trusts, Groundwork and Age Concern



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APPENDIX 1

KIPELEFS ONESSY SERVICES

12 Byram Buildings, Station Street, Huddersfield HD1 1LS
Tel: 01484 351552 Fax: 01484 351551 FREEPHONE 0800 0527496
E-mail: info@energy-help.org.uk www.energy-help.org.uk

«Names» «Address»

05 August 2005

Dear «Greeting»,

During 2004 you took part in the Health Action Calderdale, Kirklees & Wakefield (HACKW) scheme and had free energy efficiency measures installed in your property. The measures will have included one or more of the following: loft insulation, cavity wall insulation, draught proofing and heat recovery ventilation (a Baxi unit).

We are writing to you in the hope that you can help us measure the impact of the scheme, as this will help us to attract more funds into this successful scheme, which will enable us to help other individuals and families.

We would be grateful if you would take a few moments to answer the following questions, and return this form to us in the FREEPOST envelope provided (No Stamp Required.)

As a thank you for your help your response will be entered into a Prize Draw for A New Energy Efficient Electric Kettle. The draw will take place on 15th June 2005 and the winner will be notified by post on the same day.

All information received will be treated in the strictest confidence and your details will not be passed onto a third party. Please fee free to leave unanswered any questions you do not wish to answer or are unsure about, as it is some time since the measures were installed.

Yours faithfully,

Simon Tao.



Appendix 2 Customer Health Benefit Survey - HACKW 55 No's: «Expr1»

1. Can you confirm the type of work carri	ied out on your home?
Cavity Wall Insulation	☐ Draught Proofing
☐ Loft Insulation (Full)	☐ Loft Insulation (Top Up)
☐ Hot Water Tank Jacket	☐ Heat Recovery Ventilation Unit (BAXI)
2. If you or a member of your household improved since the work has been carrie	has a medical condition that is affected by the cold, has this ed out?
☐Yes	□No
Please give brief details	
3. Does your home feel warmer since the	e work has been carried out?
Yes	□No
4. Have you noticed a reduction in your f	fuel hills?
Yes	□ No
5. Have you noticed a reduction in medic	cal bills/use of medication since the work has been carried out?
∏Yes	□No
Please give brief details	_
6. Have you noticed a reduction in the nu carried out?	umber of visits to your GP/Hospital since the work has been
Yes	□No
7. Have you any further comments to ma	ake regarding the HACKW scheme?
	•

All information received will be treated in confidence and your details will not be passed on to a third party. Thank you for helping with this survey; NOW send this form to EEAC Freepost NEA10014, Huddersfield, HD1 1TG. Or use the free – replied paid envelope. (No stamp required

Page 56 Appendix 3 mproved medical condition since measures put in reduction in medical use of med eduction in gp/hospital visits no bill ye stay warm progressive illness prgressiv progressing og up pric no bill yet stay warm nhs free price increase angina need to visit price increas e to take med scheduled visits e to take med have to take med price increase no bill yet nhs free no bill yet no bill yet routine have to take medication 1 have to take medication routine 1 stay warm have to take med price increase staywarm price increase routine n/a no bill stay warn ed medicat price increase no bill no bill stay warr no bill 1 sleeps thro nhs/free no bill stay wari life illness life illnes 1 life illness 1 life illnes life illness life illnes 102 101 76 73%

Appendix 4

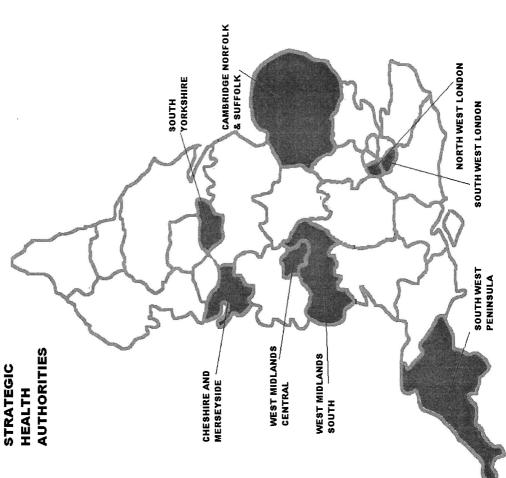
COPD project

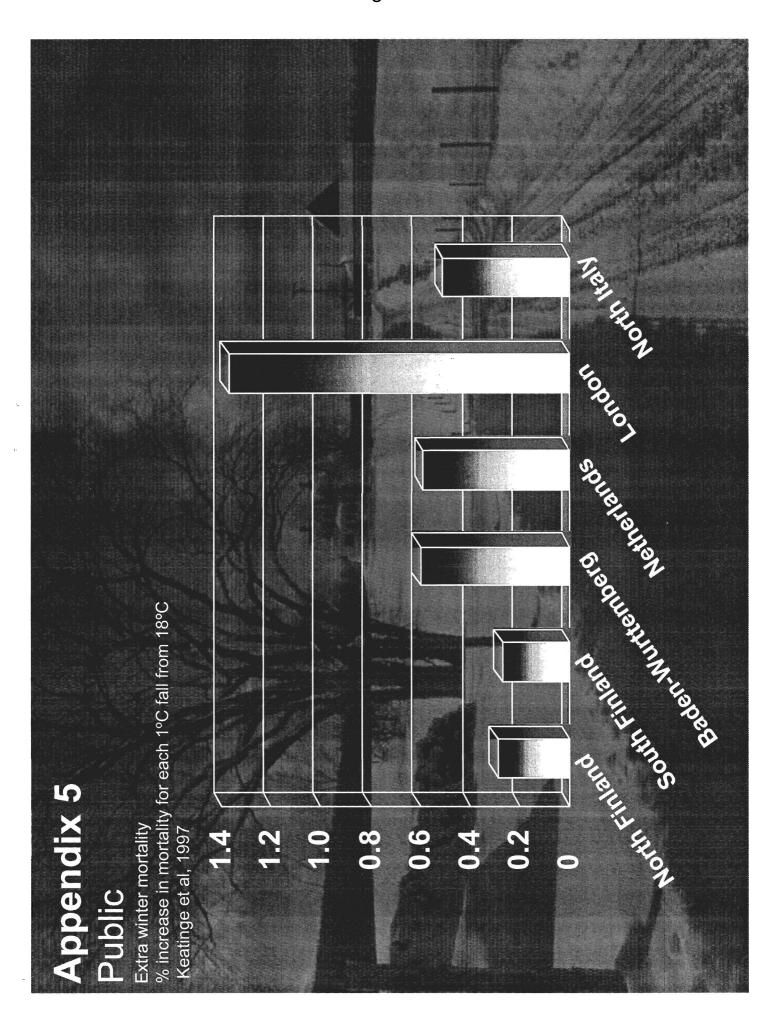
Met Office

SHA pilot project agreed. 8 Met Office service Developers

Admissions & COPD Prevention.

DoH funded evaluation

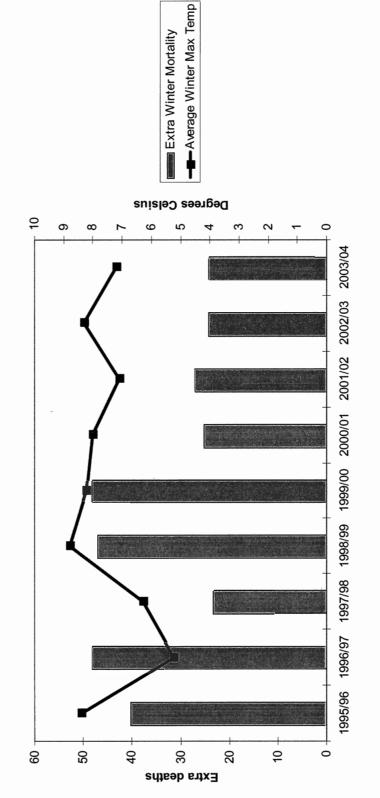




Appendix 6 Temperature and EWM



Extra Winter Mortality and Max temp.

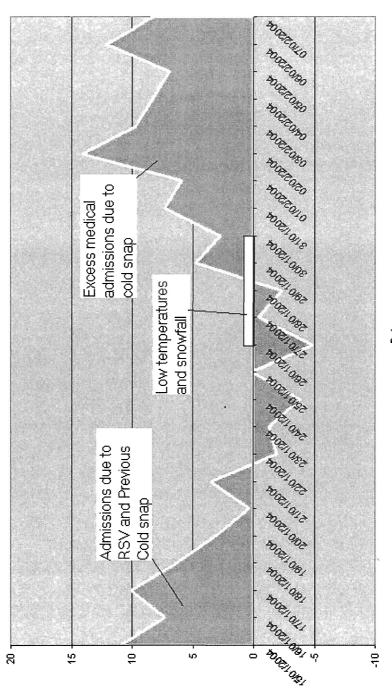




The Effect of Cold on Hospital Admissions

APPENDIX 7

SE London Emergency Medical Admissions Variance from 4 week mean. Using Week 4 as reference week

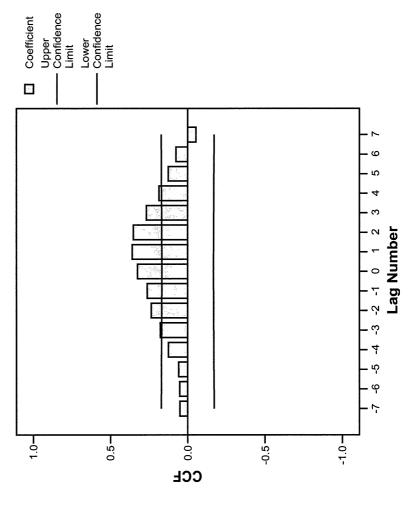


Date

Sross-correlations / lags of COPD with weather Appendix 8



Weekly "Coldness" measure vs COPD admissions



Positive correlation:

Cold snaps lead to increased COPD admissions, peaking 1-2 weeks later

N.B. "Coldness" is the weekly sum of a threshold temperature minus daily max temperature This page is intentionally left blank

Theme 1: Influencing Affordable Warmth Policy, Strategy, Funding and Delivery in the Region

Objective	Task	Regional Partners
1.1 Provide regional guidance on providing maximum assistance for clients within the parameters of data protection legislation	1.1.1 Encourage data protection commissioners to endorse the use of Local Authority and Department for Work and Pensions databases to help target affordable warmth mail shots at clients in receipt of benefit	Commissioners' Office (data protection) Eaga Partnership Energy Efficiency Advice Centre Public Health Observatory Hull Warm Zone (best practice) Strategic Health Authority
1.2 Use Local Area Agreements to raise the profile of fuel poverty locally and to deliver affordable warmth through joint action by Local Strategic Partnerships		Government Office Yorkshire & Humber Regional Assembly Regional Housing Board Strategic Health Authorities Local Authorities Local Strategic Partnerships
1.3 Produce a model scrutiny review to encourage local authorities and Primary Care Trusts to adopt best practice in their affordable warmth work		Regional Assembly Scrutiny Team Yorkshire Forward NEA Local Government Association Strategic Health Authorities Regional Housing Board
1.4 Ensure specific fuel poverty targets are included in relevant regional plans and policies		

Theme 2: Training and Awareness Raising

Objective	Task	Regional Partners
2.1 Develop a multi-agency Communication Plan which will raise awareness of fuel poverty at all levels throughout the region.	2.1.1 Make the economic case for affordable warmth to fund-holders and decision-makers in the housing and health sectors 2.1.2 Re-brand 'fuel poverty' - replace the term 'fuel poverty' with 'affordable warmth'. Maximise interest and understanding — establish a brand for the work of the Action Plan to get the message right 2.1.3 Seek media interest and publicity for regional events, policies and activities 2.1.4 Identify regional energy champions to increase influence on policy and practice 2.1.5 Replicate good practice across the region through the production of an affordable warmth good practice guide for regional decision-makers which includes case studies and costings	Affordable Warmth Action Plan Steering Group Regional Training Framework/Events Programme Regional Public Health Group Regional media – Yorkshire TV, local radio, newspapers Fuel supply companies Communications/Branding experts Universities Energy Saving Trust Housing Associations Housing Corporation Primary Care Trusts Local Authorities
2.2 Improve co-ordination and communication between regional and local organisations – vertically and horizontally – and encourage sign-up to regional objectives	2.2.1 Encourage Local Strategic Partnerships to incorporate affordable warmth into their Community Plans (How? Who?) 2.2.2 Ensure integration of national, regional and local schemes and plans to tackle fuel poverty 2.2.3 Engage Chief Executives of key regional agencies and ensure commitment through sign-up	Government Office Yorkshire & Humber Regional Housing Board Regional Development Agency Affordable Warmth Action Plan Steering Group Local Energy Support Programme NEA

2.3 Use regional energy champions to influence policy and practice in local and regional organisations throughout the region	2.3.1 Establish a database of existing regional energy champions 2.3.2 Write a role profile for regional energy champions 2.3.3 Establish regional energy champions in all regional partner organisations 2.3.4 Arrange annual meeting of regional energy champions and agree annual action plan	Regional Housing Board Yorkshire Forward Local Strategic Partnerships Regional Public Health Group Regional energy champions
2.4 Raise awareness of affordable warmth amongst those householders who are likely to be vulnerable to fuel poverty	2.4.1 Ensure that advice and information about affordable warmth is available in the places where vulnerable householders go	Primary Care Trusts Local Authorities Home Improvement Agencies Energy Suppliers Department for Work and Pensions Department for Education and Skills Learning and Skills Council
2.5 Provide Continued Professional Development courses which raise awareness of fuel poverty	2.5.1 Develop Continued Professional Development package and pilot with Fire Service and Energy Efficiency Advice Centre 2.5.2 Evaluate process and feedback to Affordable Warmth Action Plan Steering Group	

Theme 3: Supporting Local Affordable Warmth Work

Objective	Task	Regional Partners
3.1 Maximise regional access to national funding for fuel poverty activity	3.1.1 Lobby government for longer term funding programmes to tackle fuel poverty 3.1.2 Establish a regional fuel poverty fundraising 'expert' dedicated to the Action Plan 3.1.3 Rationalise the funding application process to develop common approaches and objectives 3.1.4 Ensure regional involvement in financial inclusion work in readiness for the Financial Inclusion Fund (2006) 3.1.5 Develop a regional funding/fundraising strategy	
3.2 Commit sufficient regional resources to encourage effective local affordable warmth activity	3.2.1 Direct resources to tailor schemes for heat to reach communities 3.2.2 Establish an evidence base for hard to treat properties and present a case to national government (What case? Needs clarification)	
3.3 Encourage local organisations to adopt the Regional Affordable Warmth Action Plan and incorporate affordable warmth work into their activities	3.3.1 Incorporate fuel poverty alleviation into health priorities by producing compelling arguments for Primary Care Trusts to make funding available for affordable warmth implementation work 3.3.2 Ensure that local authorities are committed to meeting the Government fuel poverty targets by ensuring that all	Regional Assembly Government Office Yorkshire & Humber

	departments adopt the Regional Affordable Warmth Action Plan and incorporate affordable warmth work into their activities 3.3.3	
3.4 Disseminate good practice being done at a local level through mentoring systems and good communication		Government Office Yorkshire & Humber Regional Assembly

Theme 4: Improving Health and Well-being

Objective	Task	Regional Partners
4.1 Promote a self-assessment toolkit to measure whether partners have the components to promote best practice (needs clarification)	4.1.1 Create self-assessment toolkit to influence strategic and operational level affordable warmth work and to enable evidence based practice and funding applications	Affordable Warmth Action Plan Steering Group Fire Service Primary Care Trusts Local Authorities Public Health Observatory
4.2 Produce a regional template for a pilot local enhanced service contract	4.2.1 Find a suitable GP surgery or Primary Care service to trial a pilot local enhanced service contract	Sub-group of Affordable Warmth Action Plan Steering Group
4.3 Develop regional network for sharing best practice	4.3.1 Use the 2006 Practitioners' Event on Fuel Poverty to encourage different professional groups to work together in a more integrated and effective way to tackle fuel poverty (needs clarification) 4.3.2 Encourage attendance at the NEA Regional Fuel Poverty Forum to a wider audience	NEA Regional Fuel Poverty Forum
4.4 Establish a consistent approach to the Single Assessment Process across the region which ensures standard trigger points for referrals	4.4.1 Ensure wider partnership involvement in the Kirklees/Wakefield Social Services trial of Single Assessment Process	Government Office Yorkshire & Humber – Audit Commission Single Assessment Process Team
4.5 Evaluate existing fuel poverty training programmes in the heath sector and identify barriers to success	4.5.1 Map existing training 4.5.2 Promote Continued Professional Development packages	Affordable Warmth Action Plan Steering Group
4.6 Develop regional guidance for training front line staff which is based on existing good practice	4.6.1 Ensure that fuel poverty issues are built into the national training programme for 'health trainers' as it is developed	Affordable Warmth Action Plan Steering Group Energy Efficiency Advice Centres

		NEA Energy Saving Trust Strategic Health Authorities Voluntary and community sector
4.7 Provide a consistent regional framework for research and evaluation to promote evidence based policy and practice	4.7.1 Conduct a review of existing evidence which shows how affordable warmth work can reduce hospital admissions and improve health	NEA Government Office Yorkshire & Humber

Theme 5: Monitoring and Evaluating the Action Plan

Objective	Task	Regional Partners
5.1 Establish detailed baseline data on fuel poverty throughout the region	5.1.1 Establish which information can be accessed in terms of data protection 5.1.2 Produce an online baseline data briefing resource (and also hard copies) 5.1.3 YHPHO and York EEAC to develop a partnership and gather data on regional Warm Front 5.1.4 Engage local partners at a regional level to ensure input of fuel poverty data	Yorkshire Futures/ Yorkshire Forward Public Health Observatory Local Authorities Government Office Yorkshire & Humber Local Energy Efficiency Advice Centres Yorkshire and Humber Regional Assembly EAGA Partnership Ltd.
5.2 Identify and measure the (health) impact of fuel poverty in the region by developing intelligence data systems	5.2.1 Include a standard direct question relating specifically to fuel poverty within PCT's Single Assessment Process (a regionalised SAP) 5.2.2 YHPHO to collect data on health/ socioeconomic information – as to key indicators of fuel poverty 5.2.3 EST Home Energy Efficiency Database (HEED) to be to be utilised for mapping fuel poverty 5.2.4 Produce a geographical choropleth map of the region to identify areas of fuel poverty (perhaps map against 20% most deprived – Indices of deprivation) 5.2.5 Produce a map of households off the gas network/ rural areas at risk	Public Health Observatory Government Office Yorkshire and Humber (Public Health – Rebecca/ Paul) Strategic Health Association Local Energy Efficiency Advice Centres Local Authority's Primary Care Trusts EST/ Centre for Sustainable Energy
5.3 Ensure ongoing performance tracking	5.3.1 Define what needs to be measured (e.g.	Public Health Observatory

of fuel poverty indicators	outputs or outcomes or both) 5.3.2 Set targets and milestones and review progress against them ¹ 5.5.3 Develop a regional Performance Indicator to encourage PCT's (and local authorities?) to monitor fuel poverty progress 5.3.4 Ensure clear sign-posting to fuel poverty data so that it is accessible to regional and local organisations 5.3.5 If feasible, pilot a 'before and after' scheme to identify potential methods of evaluation	Strategic Health Association (PCT Performance Framework) Government Office Yorkshire and the Humber (Local Area Agreements)/ LGA?
5.4 Secure funding to facilitate a comprehensive evaluation of the impact of this Action Plan	5.4.1 Steering group to identify what needs to be evaluated (e.g. milestones from each theme group) 5.4.2 Steering group to identify sources of funding (where appropriate) 5.4.3 Liase with East Midlands authorities (Regional AWS) to co-review action plans	Affordable Warmth Action Plan Steering Group Eaga Partnership Ltd. Government Office East Midlands
5.5 Establish Implementation Group to act as custodians of this Action Plan to monitor and report on delivery	5.5.1 Produce an annual report on progress against the objectives in this Action Plan 5.5.2 Monitor effectiveness of interventions at all levels 5.5.3 Establish a regional implementation agency for the Action Plan 5.5.4 Monitor progress towards Action Plan targets 5.5.5 Agree timescale for Action Plan review 5.5.6 Ensure buy-in to the evaluation process	Affordable Warmth Action Plan Steering Group Regional Housing Board Strategic Health Authority Public Health Observatory

¹ Suggested milestones: Number of referrals; number of people approached; number of people offered assistance; number of people who take up offers; outcomes; health and well being measures – educational attainment etc.; funding to pilot small health and housing projects. (Milestones need to be established for each different theme group)

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ANNEX D

Cabinet Energy Champion Project Council Questionnaire





Housing (non fuel poor)

1. How are your annual HECA returns calculated?

Please supply any details of the methodology you use.

If you rely on supporting guidance documents please tell us what these are and if they are corporately produced please send a copy with the completed form.

Contact Officer telephone/email

2. Please give us your assessment of energy consumption/ CO_2 emissions over the last five years in housing?

Contact Officer telephone/email

3. What locally funded or regional schemes do you have to improve energy efficiency/promote renewable energy to private householders?

Contact Officer telephone/email

4. How much funding do you lever in from utilities through Energy Efficiency Commitment and other sources?

Contact Officer telephone/email

5. Do you have energy efficiency targets for social housing in your area? If so please tell us what these are

Contact Officer telephone/email

6. What insulation standards do you use in Public and Private Sector Programmes?

Contact Officer telephone/email

7. Please outline your action plans for improving energy efficiency across all tenures and the resources available to you to support those plans?

Contact Officer telephone/email

8. Energy Advice is a key component of energy efficiency strategies. How effectively is energy advice delivered in your area, by whom and how do you determine its effectiveness?

Contact Officer telephone/email

9. In your Approved Development Programme schemes do you have any policies to encourage higher energy efficiency standards beyond those specified by the Housing Corporation (e.g. Eco Homes-Very Good)

Contact Officer telephone/email

10. What are the main development opportunities with regard to Private Sector Housing and Energy for your Local Authority?

Contact Officer telephone/email

11. What are the main barriers - fiscal, planning, educational or other - to such development opportunities being realised?

1

Housing (non fuel poor)

Contact Officer telephone/email

	Fuel Poverty
1.	Please provide details of current activities/projects to alleviate fuel poverty.
	Contact Officer telephone/email
2.	How do you assess if your insulation and heating schemes lift people out of fuel poverty?
	Contact Officer telephone/email
3.	Which Department(s) take the lead on fuel poverty issues?
	Contact Officer telephone/email
4.	Do you have a dedicated Fuel Poverty/Affordable Warmth Officer?
	Contact Officer telephone/email
5.	Who has responsibility for council housing stock? E.g. Council, ALMO, RSL other
	Contact Officer telephone/email
6.	Describe in general terms the make-up of the area's housing stock i.e. stock condition, age, type, tenure split.
	Contact Officer telephone/email
7.	Do you know and can locate what percentage of the Housing in the Local Authority Area is off the gas network?
	Contact Officer telephone/email

Mapping Domestic Thermal Efficiency In York

ANNEX E

Before commencing detailed work on recommendations regarding these issues the former Housing Board sought detailed – Ward by Ward – information in respect of the gauging York's present public and private domestic thermal comfort and emissive position. At their September Meeting the Board received a full report in response to this request, the methodology and findings of this are summarised in the paragraphs below.

In an ideal world a low fly over of York with thermal imaging equipment would produce a colour picture – or thermographic map – of energy loss from all York's homes on a red to blue scale where red represented most heat loss and blue least. Resources for this are not available and so mapping York's thermal efficiency must rely on data sourced primarily for other purposes. The disadvantage of this technique is that the data whilst being reasonably reliable in respect of thermal comfort can only provide an indicative model of York's domestic CO₂ emissions.

Two primary data sources were used;

Data Source 1: 2002 Private Sector Stock Condition Survey (2002): providing an account of a private sector stock conditions produced for the Local Authority City of York Council as base line data for accounting against the 1995 Home Energy Conservation Act¹.

Data Source 2: The Baker & Starling report to York, North and East Yorkshire Local Authority Support Programmes (LASP) entitled 'A profile of fuel poverty in York, North and East Yorkshire LASP Region and Member Districts': Using the Bristol University/Centre for Sustainable Energy's fuel poverty indicator, developed with funding from electricity supplier SWEB, and based statistical modeling of cross referenced Census and House Condition Survey data.

¹ the 1995 Home Energy Conservation Act required local authorities to develop a strategy for energy conservation. See DTLR Guide HC [Volume 2, Paras 5.2 & 5.3] 'A domestic energy audit will normally be conducted in furtherance of the authority's broad environmental aims as presented in the Corporate Plan. There might also be related social aims, for example, to bring reasonable thermal comfort within the reach of all households' In housing terms, you will need to express these aims slightly differently:

to reduce the need for domestic energy usage or at least maintain it at a constant level:

to reduce the emission of greenhouse gases and pollutants from domestic energy use:

to reduce the wastage of energy in the home;

to ensure that all dwellings within the area can be adequately heated at a cost which occupants on low incomes can afford;

to ensure compliance with the Home Energy Conservation Act 1995.

The main findings of data source 1 provide returns using the SAP or Standard Assessment Procedure Rating: A homes SAP rating depends upon a range of factors that contribute to energy efficiency, namely:

thermal insulation of the building fabric efficiency and control of the heating system ventilation characteristics of the dwelling solar gain characteristics of the dwelling the price of fuels used for space and water heating

Summary of Main findings for York:

The average SAP* rating for York is 44 – equivalent to the National average (1996).

94.5% of dwellings have some central or programmable heating.

85.9% of dwellings have some double glazing.

Private rented and pre-1919 dwellings show particularly low mean SAP ratings as do converted flats. Yorks lowest SAP ratings are for converted flats (mean SAP of 37).

Households with particularly low SAP ratings also appear to show quite distinct characteristics such as single persons and the elderly.

It is estimated that households current heating systems make for an average (mean) requirement to spend $\mathfrak{L}518$ on space and water heating and that the average dwelling produces 6.35 tonnes of CO_2 per year.

Mean SAP ratings in York's private rented sector are below the City average (at 41). Within this group some 10.3% have a SAP of below 20.

Typically the older the dwelling, the lower the SAP rating. This is the case in York where dwellings built pre-1919 have an average SAP of 40.

Mid terraced dwellings have a mean SAP of 45.

 ${\rm CO_2}$ Emissions and cost of heating SAP calculations may be seen as indicative for the calculation of Carbon Dioxide emissions. It is estimated that households current heating systems make for an average (mean) requirement to spend £518 on space and water heating producing 6.35 tonnes of ${\rm CO_2}$ per year. ${\rm CO_2}$ emissions would typically show the same trends as these are heavily influenced by the amount of fuel used (and hence the cost of fuel used).

Whilst the Local Authorities own housing stock returns SAP ratings of 66pts figures across all tenures are significantly reduced when private sector stock is factored in.

The SAP summary data for York does indicate some reasons for the Local Authority to be concerned, especially in respect of performance against expectations of private sector stock. These are currently that;

a target SAP of 65 across all sectors should be achieved. Figures below triggering applicability under Warm Front. York falls below by 21 points under the Regional Housing Strategy the Local Authority should be working in line with other authorities regionally to achieve an average SAP across all

types and tenures of 65 by 2015. Requiring an annual rate of increase across the region of approximately 2 points per annum. York falls below by 21 points Regional average SAP at 2005 is 49.9, York falls below by 4.9 points.

Data contained within the LASP report data source 2. reaffirmed information provided from data source 1. Homes suffering from likely fuel poverty are most likely to show a poor SAP rating indicating a likelihood of poor thermal efficiency and potentially controllable CO₂ emissions..

The LASP report presented the Board with a breakdown by Ward bringing them closer to the objective of geographical mapping. It must be noted however that the LASP report, based on information available through the 1991 Census and 1996 English House Condition Survey data is less up to date than the 2002 Stock Condition Survey.

The (DTI's) Publication (Nov 2001) 'The UK Fuel Poverty Strategy' in comparison to those of 1996, may be taken as partially indicative of improvement when it states that nationally;

...'the number of fuel poor in 2000 has only fallen from around 5.5 million to around 4 million households in the UK.'

In addition, many of the recorded improvements of 2001 may now have been offset by recent rises in fuel pricing, see also below under section 'Fuel Poverty and Thermal Comfort'. This means that a straight 22% reduction in fuel poverty in York cannot be inferred, particularly given the high percentage reductions through the specific adoption of a Fuel Poverty Strategy and/or an Energy Reduction Partnership – between the authority an energy supplier and the energy efficiency advice centres – some authorities have made.

As the City of York Council has not adopted such consolidated approaches to date it is likely that overall reductions in fuel poverty over the period fell short of 22%.

The average level of fuel poverty (reported in the LASP report) in York is identical to that of our region and the National average at 23%, (i.e. nearly one in four households live in fuel poverty). 12 wards in the LASP region feature within the 'worst' 10% of wards in England, two of which, Westfield and Clifton, are in York.

At a regional level York also presents the second highest number of Wards – 5 in total – falling within the worst 10% in the region; Westfield Clifton and Micklegate showing almost one in three households living in fuel poverty. See table below;

Ward name	% in fuel poverty	No in fuel poverty	rank
			score indicating higher

				fuel poverty
Within national worst 10%	Westfield	31	1626	10
	Clifton	31	1499	12
Within regional Worst 10%	Micklegate	30	1553	13
	Holgate	29	1245	19
	Heworth	28	1294	23
Worse than National Average	Fishergate	27	853	28
	Guildhall	27	1004	29
	Tang Hall	24	713	44
	Acomb	23	801	49
	Bishopthorpe	22	249	64
	Fulford	21	223	75
	Dringhouses & Woodth.	20	854	89
	Heslington	20	79	95
	Huntington & New Earswick.	18	776	127
	Osbaldwick	17	217	155
	Heworth Without	16	298	164
	Derwent	16	202	182
	Skelton, Rawcliffe & Clif	16	547	183
	Haxby & Wigginton	14	711	204
	Strensall	14	317	208
	Rural West	14	482	212
	Wheldrake	14	155	218

Affordable Warmth Strategy Development NEA Consultancy

Policy Perspective

The case for affordable warmth has now been recognised on a national policy level. Local implementation can only be achieved through involvement and co-operation of agencies on the ground. In recognition of this, the obligation on Energy Conservation Authorities (ECAs) to report on fuel poverty was established in the Warm Homes and Energy Conservation Act 2000¹. In November 2001 the government published the UK Fuel Poverty Strategy which sets a target of eradicating fuel poverty in the UK by 2016. The document identifies a number of roles for local authorities in assisting with the delivery of the UK strategy. Local authorities are major landlords, although this role is being reduced as a result of large-scale voluntary transfer of the housing stock to registered social landlords and other housing companies. However, local authorities have an important role to play as major investors of capital in their own stock and also in private sector properties through renewal grants. In England, this capital investment will amount to £2 billion per year over the next three years, one-third of which it is assumed will to be invested in energy efficiency improvements.

Local Authorities also have a much wider strategic role under a range of policy initiatives to promote the well-being and quality of life of all their residents. The UK Fuel Poverty Strategy also emphasises the role local authorities have to play in using their links with health authorities, primary care groups, the voluntary sector, tenant and community organisations to identify vulnerable households most in need of assistance. This builds on the Government and the Devolved Administrations strategies for housing, energy, health, poverty and social exclusion and particularly on *A better quality of life – A strategy for sustainable development for the UK*², demonstrating how policies can meet multiple social, economic and environmental objectives thereby contributing to sustainable development.

Affordable Warmth – The NEA model of strategy development

NEA recognises the key role local authorities have to play in co-ordination and delivery of local strategies to eradicate fuel poverty and other strategic objectives at a local level. In recent years, NEA has worked closely in partnership with a number of Local Authorities and other key stakeholders to

¹ The Warm Homes and Energy Conservation Act 2000 requires the Secretary of State for England and the National Assembly for Wales to publish and implement a strategy for reducing fuel poverty and set targets for its implementation. This is in addition to obligations for local authorities set down in the Home Energy Conservation Act 1995 and subsequent guidance to local authorities in England "Fuel Poverty – A Local Well-Being Issue" which require local authorities to report annually on initiatives taken to tackle fuel poverty.

develop affordable warmth strategies for both single authorities and consortia.

Affordable warmth strategies are designed to meet corporate and community plan objectives in a planned and systematic way. NEA continues to build upon and further develop a range of good practice in the development of affordable warmth strategies and can offer information and advice on the development of strategies as well as a consultancy service for a limited number of authorities as part of the annual work programme.

What are the key benefits of developing an Affordable Warmth Strategy?

- NEA works with Local Authorities and their partners in the community to develop a comprehensive, planned approach to the alleviation of fuel poverty and the provision of affordable warmth.
- This strategic approach allows for co-ordination with wider policy objectives and commitments.
- The strategy development process allows the Local Authority and its partners to determine achievable goals.
- The process provides a focus for action and promotes organisational commitment.
- The process promotes cross-departmental and inter-agency partnership working, both to maximise resources and to allow for the targeting of resources and initiatives where they are most needed.
- The process promotes cross-community participation, co-operation and wider ownership of the strategy.
- The process sets out measurable targets and timescales for action.

What are the key outcomes?

These will be determined in consultation with partners but should include:

- Improvements in heating, insulation and ventilation
- Maximising access to grant aid and assistance
- Promoting access to affordable fuel and tariff options
- Promoting access to financial services and payment methods
- Developing provision of quality energy advice
- Promoting general energy awareness.

ANNEX F

The process may have additional outcomes:

- How best to target assistance at the most "vulnerable"
- How to deal with "hard-to-heat homes"
- Improvements in health and well-being
- Can act as a funding magnet

What does NEA bring to the process?

- Over 20 years as lead fuel poverty agency
- National perspective
- 8 years experience of developing Affordable Warmth Strategies
- Technical experience
- Commitment to good practice
- Neutrality
- Policy and practical service development experience

Strategy Development Process Requirements

The Local Authority should be able to provide:

- A demonstrable corporate commitment to the adoption of an affordable warmth strategy
- A named **lead officer** who has a written brief and a time allocation to successfully deliver the project
- A timetable for the strategy development process, leading to committee/cabinet approval as appropriate
- Identification of membership of cross-sectoral membership for **project steering group**. This will require representation from agencies outside the Local Authority. NEA will be able to advise on membership
- Agreement of funding for the programme
- NEA to act as external facilitator

Roles and Responsibilities

NEA: Leads the process

Prepares all paperwork and presentations

Leads workshops and provides guidance for facilitators at

workshops

Assists with and provides guidance with drafting strategy

material

Lead Officer: Co-ordinates all activity within the authority, with partner

organisations and provides secretariat

Steering Group: Lend sectoral ownership and endorsement

ANNEX F

Act as advocates for the core aims and objectives of the strategy within own sectors
Advise on integration of strategy with other policy areas and on other practical aspects of the development process Help drive strategy implementation
Assist with monitoring and review

The Strategy Development Process

1. Initial steps and planning:

- Initial discussion with the authority to establish corporate commitment and timetable for activity. Contacts established for appropriate authority departments and outside agencies. NEA and authority to establish roles and responsibilities of NEA, Lead Officer and Steering Group and to provide a description of the development process. Authority to describe processes for securing adoption of strategy by the authority.
- Establishment of Steering Group. First meeting of Steering Group to explain the process of strategy development, outline roles and responsibilities, plan workshops and identify key participants in workshops.
- Invitations issued to workshop participants.

2. First Workshop (Half-day workshop including buffet lunch)

Likely agenda:

- Welcome and Introduction NEA/Lead Officer
- Why Affordable Warmth NEA
- Identification of barriers to Affordable Warmth group work
- Identification of solutions group work
- Identification of common themes NEA and Lead Officer.
- Use common themes to develop broad aims and objectives for an Affordable Warmth Strategy group work
- Conclusion and explanation of next steps NEA

3. Interim Process

 NEA to compile and order all information derived from group work at workshops into tabular form, identifying key policy areas, broad aims and objectives and potential partners. NEA to lead on this with support from lead officer.

- Circulate these tables to steering group. Lead Officer to co-ordinate and include any amendments. This to form feedback report on First Workshop.
- Circulate this with invitations to Second Workshop.
- Steering Group Meeting to review Workshop 1 and plan Workshop 2.

4. Second Workshop (Half-day workshop including buffet lunch)

Likely agenda:

- Welcome/Introduction
- Feedback on Workshop 1
- Brief overview of process to date
- Using tables from first workshop, revise and refine aims and objectives
 group work (each group will choose one key policy area to work on)
- Break
- Further refine aims and objectives in groups adding tasks/priorities and lead agencies to the original aims and objectives group work
- Conclude and outline next steps.

5. Post -Workshop Period

- Steering Group may want to meet to review Workshop 2, identify any problems or further information needs and to have input into decisions about drafting procedures and consultation
- NEA to compile and order all information from Workshop 2 into tabular form
- Lead Officer to use these to compile first draft of Affordable Warmth Strategy
- Lead Officer to circulate to Steering Group for comment
- Lead Officer to co-ordinate amendments and revise the draft
- Lead Officer, supported by NEA, to produce final draft. NEA will provide supporting information for inclusion in text
- Lead Officer to ensure strategy gains approval
- Strategy launch
- Distribution of Strategy Document
- Maximise publicity and promote

All to be completed within 10 -12 weeks of the second workshop. However, the Local Authority may determine an appropriate date to launch the document outside of this period.

Consultancy days and cost

In terms of the process, it is important that an appropriate timetable is drawn up. The **minimum** period from the first steering meeting to launching the strategy is likely to be between **six** and **twelve months**.

NEAs input, amounting to **fourteen consultancy days** throughout the strategy development process, covers the following elements:

1. Initial Steps and Planning:

Initial meeting with lead officer from the authority Assisting the lead officer to establish a steering group Meeting with the Steering Group to plan the 1st Workshop Preparation time related to all of the above

2. First Workshop:

1/2 day workshop session Planning for the above

3. Interim:

Compilation of information and production of workshop report Assisting Lead Officer in circulation of the report and inclusion of comments Meeting of Steering Group to review process and plan Workshop 2

4. Second Workshop:

1/2 day workshop session Planning for the above

5. Post-workshop period:

Meeting of steering group to review workshop 2 Compilation of Workshop 2 material into tabular form NEA to support lead officer in drafting final strategy document and to offer guidance on all aspects of the process

Total consultancy = 14 days

Advice and guidance on delivering an event to launch the strategy and producing a publication can also be provided, but fees *do not* include the costs of a launch event or of production and printing of a strategy document.

Costs

The total cost of NEAs Affordable Warmth Strategy Development is £7,420 plus VAT.

This is based on the above model, constituting 14 days consultancy work and covers the time commitment of the NEA consultant, preparation, development and management costs and related expenses (excluding travel and subsistence).

ANNEX F

NEA has considerable expertise and experience in the development of strategies for Affordable Warmth. Local Authorities working with NEA will get the benefit of NEA's combined expertise as well as access to direct consultancy from a senior member of NEA staff.

Further Information

For further information on NEA's Affordable Warmth Strategy development process contact:

Lorraine Donaldson Operations Manager NEA 23 Estate Buildings Railway Street Huddersfield HD1 1JY

Tel: 01484 223489 Mob: 07714 294025

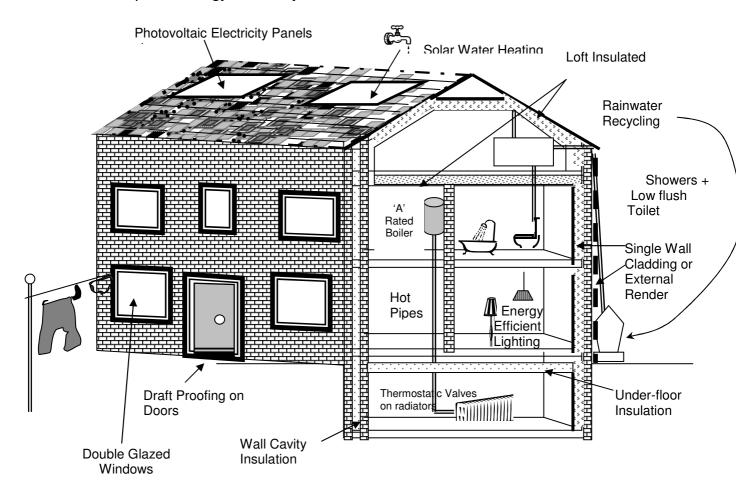
E_mail: lorraine.donaldson@nea.org.uk

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SKETCHING the ENERGY EFFICIENT HOME

- How to make a Normal Home a Greener Cleaner Home.

This house belongs to the Sketch family of Mythlegate, York. Constructed by Irregular Planning and Sons it is a little unusual as it uses a mixture of standard building techniques from the early 1900's and the late 1980's. This is OK however as it shows a range of building issues that people might face if they want to improve energy efficiency in their home.

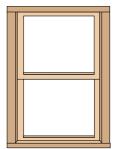


When the Sketch family moved in last year they wanted to know how to make their home more energy efficient. Non of them know anything about building and were concerned about making the proper choices before doing anything to their home.

Their neighbour suggested the family go to the Energy Efficiency Advice Centre, at 20 George Hudson Street, York. The Sketch family found out that the Energy Efficiency Advice Centre give free independent advice about improving energy efficiency to anybody, whether they own or rent their home. They even help people get grants for home improvement work.

The Sketch families story provides paybacks summary tables for the technologies and improvements giving an idea of how long it takes for the savings resulting from improvements to cover the original costs. This information provided for best estimate purposes is independently sourced¹ from experts and based on a semi-detached house with 3 bedrooms. The 'Installed Costs' assume that installation is undertaken by a professional installer. Where grants helping people make the suggested home improvements are available at time of writing information has been supplied.

This is what the Sketch family did - you could do it too!



WINDOWS and DOUBLE GLAZING: The first thing the Sketch family changed, was their glazing, this is the most popular energy efficiency measure taken by people in this country.

The Sketch family got advice before getting new double-glazing and found out that "low-e" glazing must be used in all replacement and new windows. "Low-e" glazing has a special

heat reflective coating reducing heat loss from homes through windows by 45 - 50%. Argon gas filled double-glazing is also available and this makes heat escape at an even slower rate than other types. With double-glazing fitted the Sketch family expect to **save between £25 and £35** on heating bills **each year**.

The Energy Efficiency Advice Centre helpfully pointed out to the Sketch's that fitting double-glazing when existing window frames need replacing saves both time and money. If the Sketch's had not been able to do this straight away, or had been on a budget, they could have fitted secondary glazing. This is less effective than double glazing but also less expensive and still saves money by cutting heat loss and draughts as a temporary measure.

DRAFT PROOFING WINDOWS AND DOORS: The Sketch family were amazed to learn that proper draft proofing of doors and windows is **one of the most cost effective way to cut bills**. Mr Sketch remembered using stick on foam proofing at his old home but this didn't seem to work very well as it dropped to bits after a couple of years.

The Energy Efficiency Advice Centre were really helpful and said that the best way to draft proof is to use polypropylene tubing. This initially costs more than foam but lasts so much longer and in the end it saves more money. In checking for advice they realised that the family living room has both an open coal fire, and a back-up gas fire. The Sketch's were not sure whether the gas fire had balanced flue and were told that if the room had no airbrick they could have been at risk from Carbon Monoxide poisoning if rooms were too tightly sealed.

¹ sourced from the Energy Savings Trust and Energy Efficiency Advice Centre

The Sketch's had the flue checked and also had an airbrick fitted before installing draft proofing throughout their home. To be on the safe side they have fitted Carbon Monoxide Detectors in their living room and kitchen where they have a combined electric and gas cooker; for more information about Carbon Monoxide Poisoning and prevention please see the glossary.

Through draft proofing the family expect to save between £10 and £20 on heating bills each year.

Paybacks Summary Table: Draft Proofing

Measure	Annual Saving (£/yr)	Installed Cost £	Installed Payback
Draught proofing	£10 - £20	From £50 - £75	3-7 years

INSULATING WALLS: The Sketch family learnt that up to 35% of all heat lost in homes can be through walls. They were very concerned about this as their home has a mixture of types of wall including cavity walls, typical of homes built between the 1930's and 1980's, and single shell walls built before this time or sometimes used in extensions.

Cavity Walls: They Sketch's learned that homes with cavity walls can be improved simply using cavity wall insulation which fits like sandwitch filling between the two layers of wall. Cavity wall insulation can be the most cost effective way to save energy.

Single Shell Walls: For their single shell or non cavity walls they had a choice of external cladding, specially rendering outside and if this couldn't have been be done (cases where walls are of exceptional architectural interest) then cladding could have been used on the inside of the wall.

Paybacks Summary Table: Wall Insulation

Measure	Annual Saving (£/yr)	Installed Cost £	Installed Payback
Cavity Wall Insulation	£100-£120	About £135	13-16 months
Internal wall insulation	£210 - £260	From £40/m ²	-
External wall insulation	£220 - £270	From £1800	From 7 years

Grants Support: The Energy Partnership / Energy Efficiency Advice Centre - See Contacts towards the end of this document - will insure that all home owners needing cavity wall insulation get proper independent advice and have it installed at discount prices.

Some people may also be eligible for a grant covering this work and additional improvements under the National Government funded Warm Front Scheme. See Glossary Warm Front.

INSULATING THE LOFT OR ROOF: The Sketch family learned that their un-insulated roof probably cost them 20% of their heating bill and were very anxious to do something about this. Again they discovered there were alternative ways of insulating the roof.

In homes where the loft isn't used as part of the living space and the floor boarding allows, a layer of mineral wool, prepared sheep's shoddy or recycled textile and/or paper insulation, material can be laid down horizontally like carpet. The depth now recommended is 270mm. Care must be taken by DIY enthusiasts to ensure sufficient gaps are left around the eaves to avoid condensation. A gap in the insulated area should also be left under water tanks to avoid them freezing and the pipe work and loft hatch should also be insulated.

Paybacks Summary Table: Loft Insulation

Measure	Annual Saving (£/yr)	Installed Cost £	Installed Payback
Loft Insulation (270mm)	£50 - £170	From £200	18 months - 4 years

Grants Support: The Energy Partnership / Energy Efficiency Advice Centre - See Contacts towards the end of this document - will insure that all home owners get proper independent advice about loft insulation and have it installed at discount prices. Some people may also be eligible for a grant covering this work and additional improvements under the National Government funded Warm Front Scheme. See Glossary Warm Front.

Primary Pipe Insulation Costs

Primary pipe work insulation	Approx £10 – 20
------------------------------	-----------------

In homes where the loft is used as part of the living space or the cavity between the floor boards isn't adequate thermo foil or special internal cladding can be used directly under the roof.

INSULATING FLOORS: The Sketch family home has a cellar which used to cause 25% of their heat to be lost through the floor. Mrs Sketch likes stripped pine floors rather than carpets which made the problem worse. As a minimum measure Mrs Sketch filled in gaps under the Skirting Boards with beading or Mastic sealant to stop draughts and reduce heat loss. She also wants to improve her savings by installing under- floor insulation and is working on Mr Sketch to see if he will do some DIY work with her.

Paybacks Summary Table: Floor Insulation and Draft proofing

Measure	Annual Saving (£/yr)	DIY Cost £	DIY Payback
Floor insulation	£30 - £40	From £100	From 3 years
Sealing skirting board gaps	Approx £10	Around £20	2 years

BOILERS: The Sketch's needed to replace their 15 year old boiler, and chose a new 'A' rated condensing model which will save them between a third and 40% (**about £150 each year**) on the fuel bill, it will also reduce their homes CO₂ emissions by a third.

High efficiency condensing boilers convert more than 88% of their fuel into heat, compared to 78% for conventional types. They have either a larger or a second heat exchanger, which saves the heat that would otherwise escape up the flue. The flue gases cool to the point that water vapour produced during combustion condenses. High efficiency condensing boilers can be easily fitted to most new and old heating systems. They're suitable for oil and gas-fuelled homes - even LPG (liquefied petroleum gas). They're usually no larger than conventional boilers and can be bought as either combination boilers, which heat up water on demand, or conventional system boilers, where a separate hot water cylinder is required.

Regulations introduced on 1st April 2005 in England and Wales require that boilers fitted from now on are of the high efficiency condensing type. Installers should be CORGI registered and able to advise you about energy saving recommended models.

Paybacks Summary Table: Condensing Boiler

Measure	Annual Saving (£/yr)	Installed Cost £	Installed Payback
'A' rated Condensing Boiler	Up to £100 per annum	From £1,750	From 10 years

Hot Water Jackets: If a separate hot water cylinder is used then a good well fitted hot water tank jacket at least 75mm (3") thick will create further savings, hot water pipes should also be insulated.

Paybacks Summary Table: Hot Water Tank Jacket

The state of the s					
Measure	Annual Saving (£/yr)	Installed Cost £	Installed Payback	DIY Cost £	DIY Payback
Hot water tank jacket	Approx £15	From £54	From 4 months	From £10	From 8 months

Grants support: Some people may also be eligible for a grant covering this work and additional improvements under the National Government funded Warm Front Scheme. See Glossary Warm Front.

HEATING CONTROLS & Temperature management: To get the most out of their new high efficiency boiler the Sketches combined its installation with new heating controls. The new controls let their heating

systems react to changes in temperature, providing different levels of heat in different rooms and switching the hot water on and off at the times they want.

The Sketch's heating controls will pay for themselves in under five years saving them as much as 17% on their heating bill. To be extra sure they got the right things they asked the installer to ensure their new heating controls and high efficiency condensing boiler carry the Energy Saving Recommended logo.

The heating in the Sketch's home is set at different temperatures for different rooms depending on the Members of their family using the room for long periods. The living room and Granny Sketch's bedroom, the rooms Granny spends most time in, are kept at 21°C (or 70F), in line with recommended temperature for less mobile people, the very young and older people. The rest of the house is kept to a temperature of no more than 18 °C (or 65F) the recommended temperature for healthy mobile people².

POSITIONING RADIATORS: When the Sketch family had their heating updated they got work done to move the the radiators. Many of the families radiators had been located on outside walls increasing heat loss through the walls, some were also beneath windows making heat loss even greater.

Even with new double glazing and wall insulation moving the radiators to internal walls should cut back the rate of heat loss and may save them £20 + per year. In rooms where the radiators couldn't be moved the Sketch's have used reflective sheeting on the wall behind to reduce heat loss.



PHOTOVOLTAIC PANELS AND SOLAR

WATER HEATING: The Sketch's house has a roof facing within 90 degrees of south and has no buildings or large trees overshadowing it. This makes their home ideal for the installation of solar Water Heating and Photovoltaic Panels. In homes without such perfect conditions, i.e. A South, South East, South West, West or East facing roof

people can still benefit from these technologies. Panels work throughout daylight hours, even if the sky is overcast and there is no direct sunshine.

Solar Water Heating: Solar Water Heating Panels or "collectors" are fitted to a buildings roof. They use the sun's heat to warm water, or another liquid passed through the panel and then fed to a heat store - e.g. a hot water tank – which helps provide hot water for the home.

Grants support: Mr Sketch was advised by the Energy Efficiency Advice Centre to apply for a grant through the Government funded scheme for

² Temperature advice taken from Local Energy Support Programme, York North and East Yorkshire publication: The Thermal Comfort Criteria of the Decent Home Standard. A Concise Guide for Local Authorities. For more information contact 01904 554406.

installing Solar Water Panels called Clear Skies³ which will pay out £400 towards the new system regardless of system size.

The Energy Savings Trust describe Solar Water heating as the most cost-effective, affordable renewable technology for housing currently available, which, if used and sized correctly for the household, can provide 50% of hot water needs over a year.

Paybacks Summary Table: Solar water Heating

Measure	Annual Saving (£/yr)	Installed Cost £	Payback
Solar Water	Approx £120 -	Between £2,000 - £3,100	Around 13
Heating	£175	Or £1,600 – 2,700 with grant	Years

To encourage people to get Solar Water Heating installed the Energy Partnership – a non profit making publicly funded body – See Contacts towards the end of this document – have teamed up with Solartwin. They will support people absolutely free in the following ways;

Evaluating the suitability of their homes for Solar Water Heating.

Preparing the clear-skies grant application for them

Getting the system installed.

As costs to professionally install solar water heating systems vary significantly it is important that those considering investing in this technology who are supported by the Energy Partnerships independent advisors do as much research as they can to ensure they get the best system for their needs and value for money. The Clear-skies scheme requires householders to obtain at least three quotes from registered suppliers before a Household Grant is Offered.

Photovoltaic (PV) Panels: Mr Sketch hadn't realised that solar panel were a different kind of technology to Solar Water heating panels until he began his research. His daughters school asked him to come and talk about all the Energy saving solutions that the family have installed in their homes and so, before doing this he wrote down the following description of how a solar energy panel or PV panel works. Missy Sketch is really proud of her families home improvements as the school are learning about climate change and what ordinary people can do to help the environment.

A PV panel consists of one or more solar cells, each cell is made from material which absorbs some light particles or photons from sunlight; photons are stable positively charged electrical particles which singularly equal a tiny amount of energy.

The photons absorbed by the solar cell start a process of freeing an electron; an electron is a stable negatively charged electrical particle. The combined

³ For More Information about Clear Skies grants for Solar Water heating see; http://www.clear-skies.org/households/GrantsAndTechnologies.aspx

effect of negative and positive energy exchange and flow through the solar cell material then produces electricity through a continuously running cycle during day light hours.

Energy produced from PV panels can be used immediately or stored in the equivalent to batteries. An average solar panel can produce electricity for 20 years or more. A Photovoltaic⁴ Panel can provide a household with about 30-50% of their electricity needs over a year.

Paybacks Summary Table: Photovoltaic Panels

Measure	Annual Saving (£/yr)	Installed Cost £	Payback
PV Panels	Approx £	Around £7000 or £3500	About 20 years

Grants Support: The Energy Saving Trust is running a Solar PV grants programme – for the Department of Trade and Industry – aimed at creating a long-term, sustained and viable market for solar energy. Grants are available to any UK property owner and do not require applicants to be financially assessed. Grants fund between £2,500-£5,000 (or 50% of the eligible costs of installing PV based on per kilowatt peak electricity generation) To get more information about Photovoltaic systems or help with applying for a grant people can find information on the Web at www.est.org.uk/myhome phone the hot line: 0800 298 3978, or contact their local Energy Efficiency Advice Centre.

ENERGY SAVING LIGHT BULBS: Granny Sketch, is 98 and getting a little forgetful, she lives with the Sketch family. Mrs Sketch knows that if lights have been left on in the family home it was either Granny or their rather absent minded son on his way out to play football. Mrs Sketch read in one of her magazines that switching off an unnecessary light for just one night saves enough energy to run a stereo for 24 hours.

Mrs Sketch is encouraging good habits in her family, but to be o the safe side got the Energy Efficiency Advice Centre to help her with some practical solutions. She was delighted to find out that installing just one energy-saving light bulb could save about £7-10 of electricity each year by only using about 20% of the energy ordinary bulbs need better still the bulbs will last 12 times longer than ordinary bulbs; making more time for shoe shopping. Apparently if every household in the UK installed just one, the saving in electricity would be the equivalent to the power needed for lighting 3 million homes each year⁵ or about £80 million.

⁴ The term Photovoltaic is derived from the Greek prefix "Phos" meaning light and Volta after Alexander Volta a pioneer in the field of electricity.

⁵ Source for figures see; Energy Information at the University of York <u>www.york.ac.uk/energyconservation/matters.htm</u> and the Radio Times Magazine 13th –19th August 2005

Mrs Sketch's first Energy saving light bulb was free from the Energy Efficiency Advice Centre after she took ten minutes to fill in a Home Energy Check Questionnaire, the rest she bought at her local hardware store. By using the bulbs in every room she hopes to save the family about £40 each year on their electric bill.

Paybacks Summary Table: Energy Efficient Light Bulb

Measure	Annual Saving (£/yr)	Cost £	Payback
One Energy Efficient Light Bulb	£5 - £10	Around £1.80 - £5.00	5 months – 1 Year

OTHER MEASURES AND GOOD PRACTICE

The Sketch family now know that energy saving is not just about new technologies but also clever thinking about every day things and knowing what to look for when buying new household goods.

Clever thinking about every day things

Making A Cuppa: The Sketches now measure out just the water they need to boil in the kettle before making cups of tea or coffee. This saves electricity and also lengthens the life span of the kettle by reducing scale build up. If everyone in York did this the savings would probably amount to the Street lighting bill for the city⁶. The Sketch's use white vinegar as a de-scaler⁷ in their kettle when lime scale builds up - due to York being a hard water area – as they know this will also improve energy efficiency.



Hot Water Settings: The Sketch family have set their hot water to 60°C, this is more than adequate for washing purposes and also hot enough to pasteurise the water to prevent diseases such as Legionella.



Brushing teeth: The Sketch's have stopped using hot water to brush their teeth and have learned not to leave the tap running as they brush but just pour 1/3 of a tumbler full of cold water each time. This will save the family the costs of 24,000 litres of hot water each year.

Showers: Whilst Mrs Sketch likes to soak in the bath after gardening and Junior likes to have a bath

⁶ Based on estimates for UK given in the Radio Times Magazine 13th –19th August 2005

White vinegar can be used as an environmentally friendly de-scaler for kettles in the following way: pour sufficient white vinegar into a cool kettle to cover the heating element, leave for one hour, empty kettle and fill with water, bring to boil then discard the boiled water and rinse before using as normal.

after a football match the Sketches realise that on most occasions showering rather than bathing is less costly in terms of both energy and the water used; saving around 40 litres⁸ of hot water each time.

Cooking: Junior Sketch loves cooking as much as football and wants to be the low energy Jamie Oliver. **Pans:** He always uses only the smallest pans necessary and cuts vegetables and potatoes into fairly small pieces which cook faster. He only just covers fruit, vegetables, rice or potatoes with water and always covers pans with a lid to keep in heat. This way it not only takes less time to heat up the water and less energy to keep hot but the food cooks more quickly. Junior also knows he's improving the families health as less water and faster cooking times means less of the valuable vitamins and minerals seep away into the cooking water.

Refrigerating and Freezing: Junior never leaves the fridge or freezer door open longer than necessary, as cold air will escape and more energy will be required to make the temperature inside the fridge cool again. He never puts warm or hot food into the fridge and as one of his chores around the home he regularly defrosts the fridge and freezer and checks that the door seals are working properly; seals should be tight enough to hold a piece of paper securely when closed.

Washing the pots: Junior's not as keen on washing pots as he is on cooking but his Mum knows that washing the pots by hand and only when at least a washing up-bowl full needs doing saves the family money spent on powering the old dish washer and on the amount of water used. Junior is rather envious of next door's dish washer which is a new 'A' rated model (see below under what to look for when purchasing new household goods), the neighbours only ever run this on the economy cycle when its full up and their savings are equivalent to the Sketch's.



Standby Buttons: The Sketch family are every day folk and hardly what could be described as hippies, they love their music, television and video equipment. They have realised however that they could use these things more economically by not leaving them on stand-by mode. Leaving equipment on stand-by mode uses around 70-85% of the electricity the equipment needs when fully on and is one of the most wasteful things a family can do.

Washing the car: Mr Sketch used to wash the car every Sunday using hot water straight from the tap. Now he waits for Mrs Sketch to finish having a bath and siphons off the bath water to do the car washing, this re-uses around 1,920 litres of hot water each year.

⁸ Figure sourced from http://www.doingyourbit.org.uk/

Doing the Laundry: Mrs Sketch has asked the children to plan the clothes



they need in advance so that she has time to dry them on the line rather than using the tumble drier; every time they forget and she needs to use the tumble drier she deducts £1.00 form their pocket money. Mr Sketch helps Mrs Sketch to sort the washing into colours and white loads and the washing machine is only used when there's enough washing for a full load.

All the washing is now done on a 40°C washing cycle as Mrs Sketch found that with modern washing powders this is perfectly adequate. The Sketch's use a de-scaler in their washing machine once every three months - due to York being a hard water area – as they know this will improve efficiency and extend the life of the machine. Mrs Sketch uses white vinegar as an environmentally friendly de-scaler for her washing machine⁹. By adopting these habits the family washing now costs the Sketch family about 30% of what it cost them last year

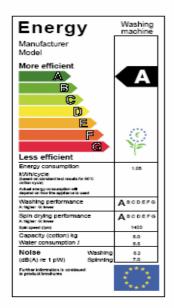
Curtains: Closing all the curtains at dusk will help to stop heat escaping through windows whilst opening the curtains during daylight hours will help rooms heat up through sunlight. Simple curtain management can save up to £20 per year.

What to look for when buying new household goods.

Householders who are looking to replace certain household items either by buying, hire or hire-purchase are now able to easily work out whether or not the new items are efficient; i.e. use low amounts of energy and/or water to perform the jobs they do. All they need to do is check the European Community Energy Label which must be displayed on the following items by law;

- ✓ Refrigerators, freezers and fridge-freezers
- ✓ Washing machines
- ✓ Electric tumble dryers
- ✓ Combined washer-dryers
- ✓ Dishwashers
- ✓ Lamps
- ✓ Electric ovens

Air conditioners



This also applies to new household products displayed for sale via Mail Order catalogues and the Internet as well as shops. Advertisements and manufacturers literature is required to contain similar information, and people should be provided with this information wherever such products are available for hire or sale.

descaler for washing machines put 1/4 pint of vinegar into the drum 1gh a 60°C wash cycle without laundry.

The European Community Energy Label is shown on the left. The labels on domestic appliances show on a scale of A to G where A is best and G worst whether the fridge, washing machine, iron, lamp or tumble drier in question is a high or low performer in terms of energy use and water consumption.

Shoppers are now used to this idea and choose items with the most A ratings as these cost least to run and reduce fuel and water bills.

Some items now display a higher than A rating i.e. AA or A++

The Table below gives an indication of the effect that opting to a more energy efficient appliance has in terms of savings each year. Where the difference in £ per year running costs are based on comparison between an average appliance purchased new in 1995 and an Energy Saving Recommended model of similar size. The table savings costs are based upon an electricity cost of 7.9p/kWh from the electricity supplier.¹⁰

Appliance	EU Energy Rating	Saving/year (up to)
Fridge Freezer	A+ or A++	£35.00
Upright/Chest Freezer	A+ or A++	£25.00
Refrigerator	A+ or A++	£15.00
Washing Machine	Α	£5.00
Dishwasher	Α	£13.00

ENVIRONMENTAL COSTS

Suppreson by the

Missy Sketch has used her families experiences as part of her school project about climate change and what ordinary people can do to help the environment. Missy knows that human activities, particularly burning of fossil fuels to produce energy release carbon as carbon dioxide (CO_2), contributing to global warming. Missy's class have learned that the CO_2 produced in this way is the biggest controllable source of CO_2 and they are finding out how to reduce this in their homes and school; after all the future is theirs.

Missy asked the Energy Efficiency Advice workers whether they could tell her what Carbon Emissions her home had produced before and after their home improvements work. This is what she found out.

An average UK home produces around 6+ tonnes of Carbon Dioxide each year and not including the

avings Trust http://www.est.org.uk/myhome/efficientproducts/

carbon dioxide created by car or automobile usage. To balance the damage done by an average homes production Missy is told that home owners would need to plant around 36 broad leaved native trees¹¹. Missy's home before improvement was worse than average producing around 8 tonnes of CO₂ each year and would require about 48 trees planted to balance, or 6 trees per ton.

As each of the home improvements were installed the tonnes of CO_2 produced each year in the house reduced, the house now only produces about 1- 1.3 tonnes of CO_2 per annum or 6 to 8 trees worth. Missy has planted a Crab Apple and a Rowan tree in her garden and will be planting 6 more trees with her class during National Tree Week this year (See Glossary for more about National Tree Week).

CONTACTS

Energy Efficiency Advice Centre

Write: The Energy Efficiency Advice Centre 20 George Hudson Street York

Call free-phone number: 0800 512 012

or by Email to: advice@4sustainable-energy.co.uk

Energy Partnership

People can contact the Energy Partnership on the free-phone number: 0800

512 012 or by Email to: advice@4sustainable-energy.co.uk

Warm Front

People can get further information about Warm Front on the free-phone number: 0800 512 012 or by Email to: advice@4sustainable-energy.co.uk

GLOSSARY:

Broad Leaved Native Trees

Broad Leaved native Trees would generally be agreed to be species of Deciduous (trees which loose their leaves in winter) trees which have grown in England since the last Ice Age. The below list is not comprehensive but provides a guide;

Alder (Alnus glutinosa), Ash (Fraxinus excelsior), Aspen (Populus tremula), Bay Willow (Salix pentandra) Beech ** (Fagus sylvatica), Bird Cherry (Prunus padus), Black Poplar (Populus nigra var betulifolia), Broad-leaved Lime ** (Tilia platyphyllos), Crab Apple ≅(Malus sylvesteris), Crack Willow (Salix fragilis), Downy Birch (Betula pupescans),

¹¹ See Glossary for definition of Broad Leaved Native Trees

English Oak (Quercus robur), Field Maple (Acer campestre), Goat Willow (Salix caprea),

Hawthorn ≅**(Crataegus monogyna) and Midland Hawthorn≅ (Crataegus oxyacantha),

Hazel≅ ** (Corylus avellana), Hornbeam (Carpinus betulus), Rowan ≅(Sorbus aucuparia), Sessile Oak (Quercus petraea), Silver Birch≅ (Betula pendula), Small-leaved Lime (Tilia cordata), Service Trees (Sorbus domestica and Sorbus torminalis), White Willow (Salix alba), Whitebeam (Sorbus aria), Wild Cherry (Prunus avium), Wych Elm (Ulmus glabra)

- ≅ Suitable for smaller gardens
- ** Suitable for Hedging or pleatching

CARBON MONXIDE: Poisoning and Prevention

Carbon monoxide (CO) is a poisonous gas, which may be given off by heating both fixed and portable appliances - or cooking appliances that use gas, coal, wood or oil, if they're not working properly, if the flue is blocked in any way, or if the room is not properly ventilated.

More than 50 Deaths from accidental domestic carbon Monoxide poisoning occur in the UK each year. Carbon Monoxide gas has no smell, no colour or taste and this makes it particularly dangerous.

To avoid accidental death through Carbon Monoxide poisoning people should do the following things as a minimal precaution;

- ✓ Households with a gas boiler or heating system should be serviced every year
- ✓ Chimneys should be swept, even if the fire is not in regular use, every year
- ✓ Fit Carbon Monoxide detectors, these should comply with British Standard BS 7860 – a Carbon Monoxide detector is a warning device not a substitute for regular servicing.

In rented accommodation

The Gas Safety (Installation and Use) Regulations 1998 place a duty on landlords to make sure that appliances and flues are kept in good order and checked for safety at least once every 12 months. Landlords must also keep a record of previous safety checks and issue the current record to the tenant.

Tenants moving into new accommodation should:

- Demand to see a copy of the current record of safety checks carried out.
- Ensure that safety checks were carried by a CORGI-registered engineer.
- Not use any gas appliances which they think may be unsafe.
- Not attempt do-it-yourself work on appliances.

For more information about Carbon Monoxide in Homes please see the Department of Trade and Industry web site www.dti.gov.uk/homesafetynetwork/cm intro.htm

National Tree Week is the Tree Council's festival marking the beginning of the tree planting season, and celebrating trees and woods across the UK. Including opportunities to plant trees or take part in events such as, walks, talks, songs, story-telling and tree dressing.

This Year it takes place between 23 November – 4 December 2005

For More Information contact The Tree Council on 020 7940 8180 (office hours)

Or see their website: http://www.treecouncil.org.uk/projects/ntw.htm

WARM FRONT

Warm Front is a National Government funded initiative. The Warm Front grant can provide up to the value of £2,700 (or £4,000 if oil central heating has been recommended) of energy efficiency and heating measures for home owners or people living in privately rented properties. Energy efficiency advice with a view to the possibility of getting funding through the Warm Front scheme and tailored to each household can be provided in accordance with the Energy Savings Trust's Code of Practice from local Energy Efficiency Advisory Centres; to get support to apply for a Warm Front Grant or checking eligibility see **contacts** above.

Who might be able to claim a Warm Front Grant?

- 1. Householders who have a child under the age of 16 or who are pregnant and have been given a maternity certificate MAT B1, and are also in receipt of one or more of the following benefits:
 - Income Support
 - Housing Benefit
 - Council Tax Benefit
 - Income Based Job Seekers Allowance
- 2. Householders who are in receipt of one or more of the following benefits:
 - Working Tax Credit (which must include a disability premium)
 - Child Tax Credit
 - Income Support (which must include a disability premium).
 - Housing Benefit (which must include a disability premium).

- Council Tax Benefit (which must include a disability premium).
- Attendance Allowance
- Disability Living Allowance
- Industrial Injuries Disablement Benefit (which must include Constant Attendance Allowance).
- War Disablement Pension (which must include the mobility supplement or Constant Attendance Allowance).
- 1. People aged 60 years or over and who receive any of the following;
 - Income Support
 - Council Tax Benefit
 - Housing Benefit
 - Income-based Jobseekers Allowance
 - Pension Credit

What energy efficiency and heating measures does Warm Front cover?

Insulation measures:

- Loft insulation.
- Draught proofing.
- Cavity-wall insulation.
- Hot-water-tank insulation.

Heating systems

- Central heating
- Gas room heaters with thermostat controls
- Electric storage heaters
- Converting a solid-fuel open fire to a modern glass-fronted fire
- Time controls for electric space waters and water heaters
- Heating repairs and replacements

Other measures

- Energy advice.
- Two low-energy light bulbs.
- Hot water tank jacket.