RYEDALE DISTRICT COUNCIL

PART A

REPORT TO:	**COMMUNITY SERVICES & LICENSING COMMITTEE**
DATE:	**27 NOVEMBER 2008**
HEAD OF SERVICE:	**ENVIRONMENT**
REPORTING OFFICER:	**ENVIRONMENT & ENERGY CONSERVATION OFFICER Nick Coakley**
SUBJECT:	**FUEL POVERTY – PERFORMANCE REPORT**
WARDS AFFECTED:	**ALL**

1.0 PURPOSE OF REPORT

1.1 To provide members with a background to fuel poverty, including recent trends, reports, and possible future scenarios in preparation for the forthcoming presentation and reporting from the private sector stock condition survey.

2.0 RECOMMENDATIONS

2.1 It is recommended that Members endorse the performance report and agree any amendments to policy or further action required to improve performance.

3.0 BACKGROUND & INTRODUCTION

3.1 Fuel poverty is of increasing concern nationally, due to worsening economic conditions and increasing energy prices, and locally due to many Ryedale residents living in older housing outside areas served by natural gas connections.

4.0 REPORT

4.1 **Fuel poverty definitions**
Fuel poverty occurs where a household uses more than 10% of its income in order to maintain satisfactory heating and use of energy services.

Some dispute has focussed on whether the definition should refer to disposable income, gross or net income, however this is largely irrelevant, since the 10% figure is itself arbitrary. As with general indicator cut-off points relating to poverty, health, crime, etc, it is often far more important to have an understanding of relative change than absolute numbers. It is therefore noteworthy that the number of households living in fuel poverty reduced dramatically between 1996 and 2003, but has since risen again to over 4 million households due to the recent increase in energy prices (see figures 1 & 2 below).

Fig.1. UK households in fuel poverty. Projection is due to data collection time lag.

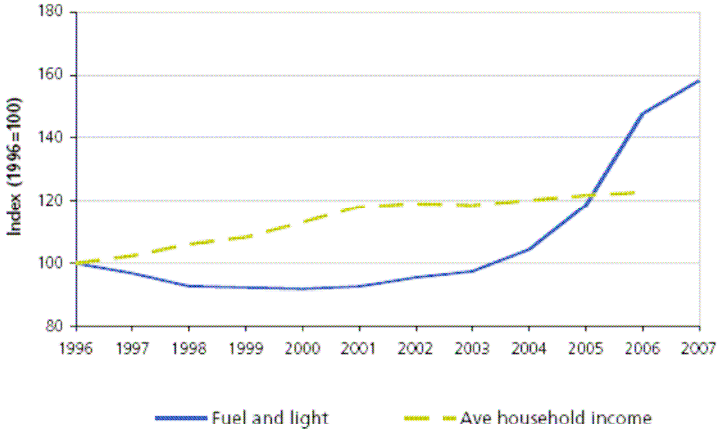

Fig. 2. Price index of energy costs relative to income, to 2007.

Fuel poverty has many consequences. Primary impacts include an exacerbation of poverty, stress, and debt. Secondary impacts are often as serious and include deterioration to house condition, higher carbon emissions, and a range of adverse health impacts, especially in people with pulmonary conditions. Every winter, many thousands die as a result of poor housing conditions and attitudes to heating. These are known as excess winter deaths, as they are deaths above the average expected.

Only some of these impacts are usually affected by traditional measures used to alleviate fuel poverty. Often, there may be a refusal to change behaviour, resulting in only minor health benefits. Sometimes the opposite is the case and fuel costs increase if people use heating systems excessively or inappropriately. In addition, overall poverty may remain static because of the substitution effect, whereby savings generated through energy efficiency measures are wasted. For the same reason, many may not equate energy savings with valid carbon emission reductions, since the substitution effect pushes additional expenditure towards the normal range of spending activity for that household, which may or may not have carbon intensive consequences.

4.2 **Fuel Poverty in Ryedale**

Until recently, the only data available on this subject locally was a national survey based on the 1991 census and 1996 English house condition survey, extrapolated

locally based on income and property data. This was not very accurate, but was the best data available until recently. It is very difficult to make performance or trend assertions based on this data as it is difficult to separate the income effect from the fuel effect at Ward levels. The graph below presents this data in order, by 1991 ward boundary.

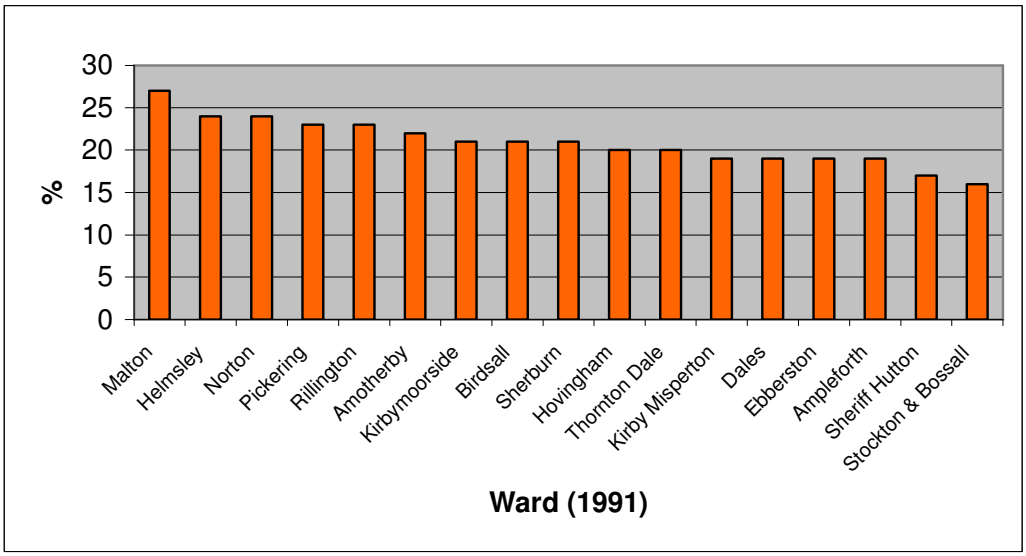

Fig. 3 . Estimated households in fuel poverty in 2004, by 1991 ward boundaries.

The recently undertaken Private Sector Stock Condition Survey gives a much more accurate picture of the occurrence and distribution of fuel poverty in the District, and will enable a better breakdown of the problem. To date, only preliminary results have been received, and no detailed analysis can be presented, however the headline results presented below indicate the following important points:

- Over 1 in 3 Ryedale private sector households are in fuel poverty
- Fuel poverty occurs across the district
- Fuel poverty is concentrated in the Rural areas and the Service Villages
- Many in fuel poverty live in old housing, so called 'hard to treat' homes.

The results suggest that overall, there are 6694 ***private sector*** Ryedale households in fuel poverty.

Fuel poverty in Malton / Norton is *relatively* low. This reflects the provision of mains gas and the prevalence of terraced and more recently constructed housing. Low income is likely to be a greater influencing factor than in other areas.

In the market towns, a mixture of factors lead to higher levels of fuel poverty, but, as with Malton and Norton, property type and age of construction will probably limit the overall level, as will the availability of mains gas for many properties.

In more rural areas, the level of fuel poverty rises up to and over 50%. The highest levels of fuel poverty occur in the South East. This includes the wolds, where altitude and higher wind speeds will lead to higher heat loss from houses, exacerbated by most households being heated with either oil or lpg.

More detailed analysis of results and causal factors will be possible once the whole survey results have been made available. This will be the subject of a comprehensive report and a member briefing covering the whole survey and results.

4.3 **Solutions to fuel poverty**

Insulation is the key to energy efficiency. Simple, proven and cheap, basic energy efficiency measures represent a sound investment with an impressive rate of return and good potential to save a significant amount of energy. Other, more expensive measures provide good, long-term solutions with a range of payback times.

Simple measures		
Measure	Typical cost	Typical payback times
Hot water tank insulation	£10-20	< 1 yr
Energy efficient lighting	£10 -£100	2 - 4 yrs
Draught proofing	£5 - £50	3- 5 yrs
Full loft insulation	£200	3 yrs
Loft insulation top-up	£250	6 yrs
Cavity wall insulation (brick wall)	£230	3-5 yrs
Cavity wall insulation (stone wall)	£550	6 yrs
Heating controls	£100-200	1- 5 yrs

Complex / more expensive measures (not always suitable)		
Measure	Typical cost	Typical payback times
Boiler replacement	£1800	15 -20 yrs
Conversion to wood burning stove (with back boiler)	£3000	3- 8 years
Double glazing	£5000	> 20 yrs
Solid wall insulation (external)	£4000 - £8000	15 – 20 yrs
Solid wall insulation (internal)	£3000 - £5000	15 – 20 yrs
Solar thermal panel (hot water)	£4000	15 – 30 yrs
Heat pump conversion	£4000 - £10000	10 – 20 years

4.4 **Home Energy Conservation Act**

As part of this Council's responsibility as a designated Energy Conservation Authority, an annual survey is undertaken of properties in Ryedale in order to assess energy efficiency improvements, judged from a 1996 baseline. The original target for local authorities was a 30% improvement over a period of 10 years, to 2006. Authorities had discretion to extend this to 15 years if desired.

Ryedale District Council's original Home Energy Conservation Act report in 1996 identified the potential for half of the proposed target (15%) to be achieved from physical changes (energy efficiency measures and installations) and the other half (15%) from conscious behavioural changes.

A more recent analysis by National Energy Services on behalf of the Yorkshire and Humber Regional Assembly concluded that at the rate of improvement over the period 1996 –2002, Ryedale District Council would miss its target by more than 120 years. However, over the last four years, significant improvements have been achieved, with the largest single gain occurring during the last financial year.

Overall the 11-year improvement of 24% must be set in context. Cheap energy prices throughout the 1990s acted as a disincentive to implement energy efficiency measures. Additionally, before the transfer of Ryedale's housing stock, significant investment in household energy efficiency meant that Ryedale's baseline figure was relatively lower per household compared with other authorities where low investment in housing energy efficiency had taken place. Therefore an improvement of 24% in Ryedale could be equivalent to much higher improvement elsewhere.

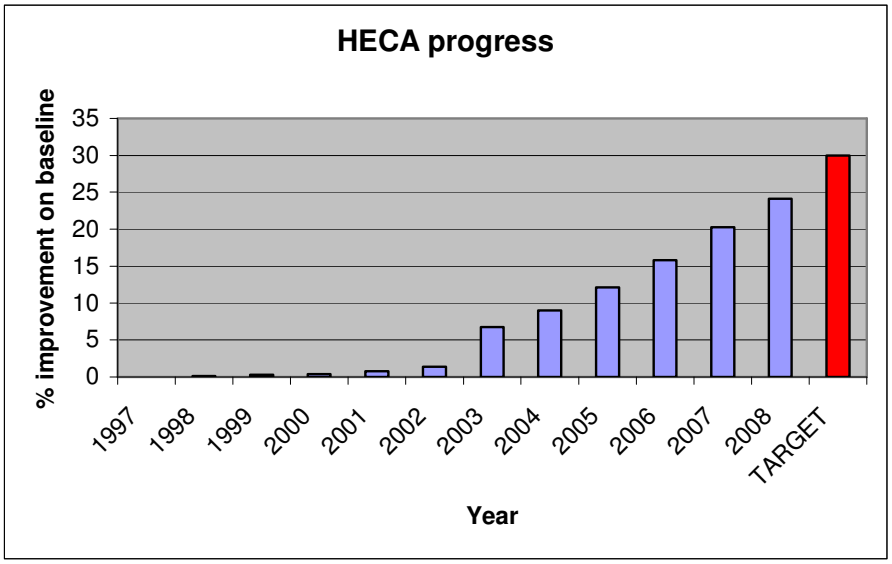

Fig. 4. Progress against the HECA target in Ryedale households.

Inaction remains the main limiting factor in the take up of energy efficiency measures throughout the country. Simple measures still have the potential to achieve further significant gains, but take up is still limited, despite very short payback times for the majority of simple measures of between one and five years. Nationally, Home Energy Conservation Act progress figures actually mask the fact that overall energy consumption is higher than ever and is still rising, with energy wastage now more prevalent than ever before.

The Home Energy Conservation Act is currently under review, and is likely to be replaced next year. The role of local authorities is currently unclear, although this topic is certain to increaser in importance for a variety of reasons, including energy security, climate change, and fuel poverty.

Currently, the Council's call volume is very high in relation to fuel poverty and energy efficiency. We have achieved very significant increases in energy efficiency over the past few years, as evidenced in the annual report that we submit to DEFRA as part of the Home Energy Conservation Act. Warm Front Grant expenditure locally is consistently good, and officers have good working relationships with local insulation companies.

4.5 **Public policy and solutions to fuel poverty**

Raising household income and easily influencing delivered energy prices are certainly beyond the ability of most local authorities in the short or even medium term. Even at a national level, these factors are only dealt with over long periods, and often with limited success.

At the district level, there is only one viable long-term solution to the problem of fuel poverty – energy efficiency and energy conservation improvements. However, this does avoid to some extent the fact that households in fuel poverty can be broadly split into two groups:

- Reasonable housing but low income
- Poor housing with low/moderate income

Energy efficiency improvements will help both groups and can bring those in poor housing out of fuel poverty, but many households live in fuel poverty simply because

they live in *general poverty*, and only higher household income will alleviate their general predicament.

Another important consideration is that personal attitude to temperature and what is comfortable have changed considerably over the past fifty years. The major change that has occurred has been the widespread adoption of central heating in homes. This had made millions of houses comfortable to live in, but for many, involves heating a whole house, although only one or two rooms are actually used. Additionally, many now regard the idea of having to dress appropriately according to season as an unreasonable expectation.

Energy efficiency of the housing stock and most appliances is slowly increasing. However, this is countered by behavioural changes which result in excessive indoor temperatures and energy consumption by many more appliances. Despite recent headlines, it is important to remember that all fuel is still historically very cheap, however people have become so used to wasting energy, they find it hard to adapt as it returns to a more realistic price.

Nationally, many small changes could have a significant effect on levels of fuel poverty, for example:

- Changes to winter fuel payments – better targeted at those in need, withdrawn from those with no need, and based on take up of energy efficiency measures, separated from main household income.
- Tax changes to fuel and to benefit energy efficiency improvements.
- Gas mains extensions (but possibly only a short term, expensive fix).
- Better building regulations and better enforcement.
- Effective planning legislation based around renovation to force energy improvements with every change to a property.
- Legislation to enforce higher standard of rented accommodation, and to force changes linked to home sales as part of Home Information Packs.
- Behavioural and attitude change. This has been partly initiated by higher prices.

4.6 **Energy efficiency funding schemes and grants.**

The following support is available:

- CERT (Carbon Emissions Reduction Target) scheme. This is funded by utilities under legal obligation, and provides subsidised insulation nationwide to most people, with free insulation to over 70s and those claiming income or disability related benefits.
- Energy Advice is provided by both RDC and the local Energy Saving Trust Advice Centre.
- Private sector grants are administered by Ryedale District Council within Housing Services. Currently this totals £100K annually for insulation and heating works with eligibility criteria based partly on age, income, and for more expensive measures on council tax banding.
- The Warm Front Scheme – Insulation and heating for the most vulnerable, this is the government's main scheme aimed at alleviating fuel poverty. The scheme is nationwide, but can be very slow, inflexible and often fails to offer the most effective solutions, sometimes inadvertently putting people into fuel poverty.
- Winter fuel payments can be up to £400 depending upon age and circumstances. Unfortunately these are poorly targeted, with low awareness levels. These are not based on need, and are distributed in a senseless blanket approach without reference to real winter fuel costs of the respective individuals.

4.7 **Economics of Energy Efficiency**

Most energy expenditure goes direct to energy companies, if not national then multinational. Essentially, the majority of money spent on energy in Ryedale leaves the Ryedale economy. Economists have shown that for rural areas such as Ryedale, an economic development effect known as a 'local multiplier' can be achieved by generating savings from such expenditure, due to the fact that a portion of any additional household disposable income will be spent on localised goods and services according to the typical spending profile of that household.

Some of this spending is obviously localised, estimated to be up to 30 %. However this does not just happen once, because a portion of that money will be re-spent, again and again, hence the 'multiplier effect' (illustrated below).

An example of this in effect can be easily estimated from Ryedale District Council's distribution of free energy-saving light bulbs over the past four years. Over 20,000 light bulbs have been distributed. Conservatively allowing for low take up and lower than usual usage, this amounts to a total saving for Ryedale residents of over £500,000 worth of electricity in the past four years. This does not take into account a further £50,000 saved on initial purchase costs, or additional savings from the non-purchase of conventional bulbs.

Due to the local multiplier effect, we can estimate that around £125,000 of annual electricity savings therefore generates a total economic effect worth over £175,000 - an additional £50,000.

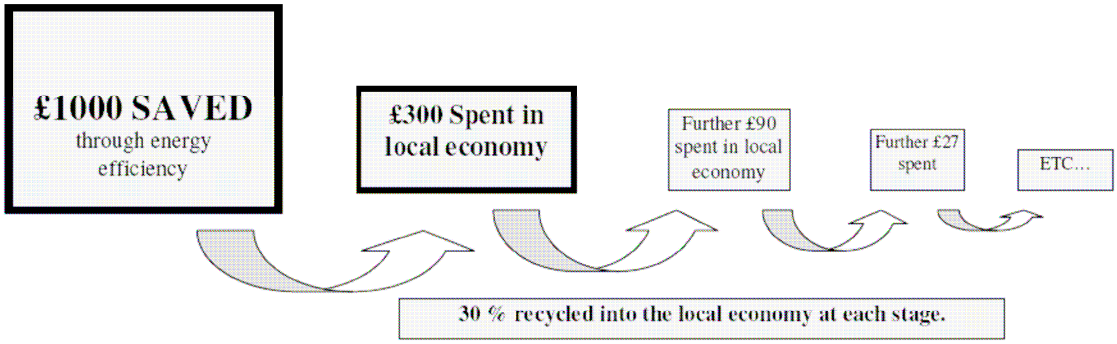

Fig. 5. A best case scenario illustration of the local multiplier effect.

6.0 CONCLUSION

6.1 Wholesale energy prices have recently been falling, and this will feed through to fuel poverty figures to some extent, so that the level of fuel poverty should remain fairly static next year. However, this is due to the worldwide financial downturn and temporary reduced expected demand for energy. The medium term outlook for UK energy prices is of increasing prices, due to the rapidly increasing gap between domestic supply and demand, and increasing reliance on imported oil and gas, with little storage capability at a time of increasing worldwide energy demand. This means that long term, comprehensive energy efficiency improvements will become more and more important as the only permanent way of alleviating fuel poverty.

Members are requested to consider the performance information in this report and advise whether they wish to see the Council develop any further actions or support.

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