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1. Executive Summary

In December 2013 The Energy Advisory Service (TEAS) the Western Isles’ local energy agency, where commissioned by Comhairle Nan Eilean Siar to issue a fuel poverty questionnaire to all homes in the Western Isles. There were over 2,000 questionnaires returned to TEAS demonstrating the high level of concern throughout the islands relating to this issue. The data set used to compile this report was gathered from a postal survey which was issued to all occupied households in the Western Isles (approx. 12,000). This was carried out between 9th December 2013 and the 20th of January 2014. The survey resulted in an overall return of 2,167 completed questionnaires. The return represents an 18% sample which provides a very robust statistical base from which to analyse the results. A strong representative mix of all geographic areas was achieved.

The principle purpose of the report was twofold: 1) to gain an up-to-date view of the level of fuel poverty currently in the islands\(^1\), and 2) to raise awareness of fuel poverty and of the schemes currently running that may support householders in tackling the issue.

The key findings from the report are;

Firstly:-

**71% of householders saying they spend more than 10% of their income on fuel**

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This is in comparison to the Scottish average of 27% according to the Scottish House Conditions Survey 2010-2012 and a notable increase since TEAS completed a fuel poverty report in 2005-06 which showed fuel poverty in the region of 25%.

Secondly:

**18% of households are in extreme fuel poverty spending 20% of their income on fuel**

Thirdly: New Category

**11% of householders are spending 30% of their income on fuel**

**Combined Factors Affecting the Western Isles**

With the recent domestic fuel price hikes, which are being experienced on a yearly basis, coupled with the predominance of oil and electrically heated homes in the Western Isles, fuel poverty is not only the worst in Britain but also in Western Europe. According to the figures from the Association for Conservation for Energy and the Energy Bill Revolution campaign the UK is placed at the bottom of the fuel poverty league tables for Western Europe at 19.2% with the Netherlands at the top with only 8.1%\(^2\). The Western Isles extremely high figure of fuel poverty is partly due to our island demographics as well as house types where we have a large percentage of older, larger, detached and single occupied homes, with many elderly residents. This coupled with the low average incomes within the Western Isles means households face a daily challenge to keep warm.

From the data gathered 73% of homes were detached, with 67% having more than 7 rooms in the home. This is compared to the Scottish average of 12% on a like for like basis which indicates clearly the particular issues faced within the Western Isles where there is a significant number of large hard to heat homes.

As can be seen from the graph titled fuel type, 48% of homes use oil as the primary fuel type with a further 34% using electric and a smaller 5% still using solid fuel as their main heating source. Many householders pay by direct debit (45%) however, of the 11% that pay by prepayment card, a staggering 85% of respondents are in fuel poverty.

**Conclusion:**

The three main factors of poor energy efficiency, high fuel costs and low incomes, all demonstrated as prevalent within the Western Isles, combine to result in very high levels of fuel poverty.

The insulation of the home, the degree of exposure and the efficiency of the heating sources all determine the amount of energy which must be purchased to heat the home adequately. Therefore a major problem we face in the Western Isles is the benefit from much of the energy we use and pay for is lost through the fabric of poorly insulated, highly exposed homes with poor heating systems.

In the graph above you can see that 23% of homes are of solid wall construction with a further 20% being of a mixed construction (predominantly solid wall with a cavity or solid wall kitchen extension). From the returns 35% of homes have no wall insulation, out of the 31% that have cavity wall 56% of these homes have had cavity wall insulation. From the 23% respondents with solid wall insulation only 19% have had some form of insulation.
The recent rises in the already higher-than-average fuel prices will certainly put additional pressure on many homes in the Western Isles and plunge many more into fuel poverty. As can be seen from the graph above, 66% of households are spending over £1,500, on fuel, per annum with 42% spending more than £2,000 per annum. This compares with the UK average spend for dual fuel which is estimated at £1,264.

Fuel poverty is, of course, a subset of poverty and low income householders are those most at risk. The Western Isles has one of the lowest household income levels in Scotland, the graph above shows that 35% of households have an income of £7,501 - £16,500, with nearly 50% below £16,500. The combination of low income with high fuel costs is a major factor influencing the incidence of fuel poverty in the Western Isles.
2. Introduction

The Fuel Poverty assessment and monitoring project which was commissioned by Comhairle nan Eilean Siar and undertaken by The Energy Advisory Service (TEAS), where all homes in the Western Isles received a fuel affordability survey, with a substantial response of 2167. The data gathered was used to gain an up-to-date view of the levels of fuel poverty that we currently face in the Western Isles as well as to gather information on the housing stock and occupancy assessment within our islands. The aim of the project was also to raise the awareness of fuel poverty and those schemes currently running that may support householders in tackling the issue.

The Scottish Government has a remit to address the energy efficiency of Scotland’s homes. Under the Housing (Scotland) Act 2001, the Scottish Government has a statutory duty to end fuel poverty, as far as is practical, by November 2016\(^3\). Fuel Poverty in Scotland has steadily risen since 2002, reaching a peak in 2009 of 766,000 households dropping to 658,000 in 2010 however, since then it has increased significantly. This is largely credited to the dramatic rise in domestic fuel prices and stagnation of incomes.

The initial part of this report will look at the background and definition of fuel poverty in Scotland, before leading on to data gathered previously for the Western Isles and Scotland as a whole. The report will also highlight the main causes of fuel poverty, especially in a rural setting, while also assessing those affected and the effects it has on these residents. This is followed by analysing the specific data that has been gathered from the questionnaire, and the key findings associated.

The data gathered from this research will be used as an aid to direct fuel poverty strategies and also to aid in the prediction of the effects of implementing energy efficiency measures. The report concludes by suggesting methods to help reduce fuel poverty in the Western Isles.

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\(^3\) UK Fuel Poverty Monitor 2013-2014
3. Definition of Fuel Poverty

Fuel poverty occurs when a household is unable to afford to adequately heat their home, due to a combination of low income, inadequate or expensive heating and poorly insulated homes with inadequate ventilation. A household is in fuel poverty when they spend more than 10% of their income on fuel. The Scottish Executive has adopted the following definition of fuel poverty in Scotland:

“A household is in fuel poverty if, in order to maintain a satisfactory heating regime, it would be required to spend more than 10% of its income (including Housing Benefit or Income Support for Mortgage Interest) on all household fuel used”.

a. Satisfactory Heating Regime

The definition of a ‘satisfactory heating regime’ is the level recommended by the World Health Organisation. For elderly and infirm households, this is 23ºC in the living room and 18ºC in other rooms, to be achieved for 16 hours in every 24. For other households, this is 21ºC in the living room and 18ºC in other rooms for a period of 9 hours in every 24 (or 16 in 24 over the weekend); with two hours being in the morning and seven hours in the evening.

Heating Regimes in Scotland differs slightly for vulnerable households from that of England as can be seen in the table below:

<table>
<thead>
<tr>
<th></th>
<th>Scottish heating regime</th>
<th>English heating regime</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ordinary Households</strong></td>
<td>Weekdays 9 hours of heating</td>
<td>Weekdays 9 hours of heating</td>
</tr>
<tr>
<td></td>
<td>Weekend 16 hours of heating</td>
<td>Weekend 16 hours of heating</td>
</tr>
<tr>
<td><strong>Demand temperature</strong></td>
<td>Primary living zone 21ºC</td>
<td>Primary living zone 21ºC</td>
</tr>
<tr>
<td></td>
<td>Secondary living zone 18ºC</td>
<td>Secondary living zone 18ºC</td>
</tr>
<tr>
<td><strong>Vulnerable Households</strong></td>
<td>Weekdays 16 hours of heating</td>
<td>Weekdays 16 hours of heating</td>
</tr>
<tr>
<td></td>
<td>Weekend 16 hours of heating</td>
<td>Weekend 16 hours of heating</td>
</tr>
<tr>
<td><strong>Demand temperature</strong></td>
<td>Primary living zone 23ºC</td>
<td>Primary living zone 21ºC</td>
</tr>
<tr>
<td></td>
<td>Secondary living zone 18ºC</td>
<td>Secondary living zone 18ºC</td>
</tr>
<tr>
<td><strong>Under-occupied Households</strong></td>
<td>Whole house is assumed heated</td>
<td>Half house is assumed heated</td>
</tr>
</tbody>
</table>

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4. Background of Fuel Poverty in Scotland and Western Isles

The Scottish House Condition Survey (SHCS) for 2012, published at the end of 2013, shows that:

*Scotland Figures:*

- Fuel poverty in Scotland in 2012 was 647,000 households or 27.1%
- In 2012 the figure represented a fall of around 74,000 households, or 3.4 percentage points from the figure in October 2011 of 721,000 (30.5%).
- The level of extreme fuel poverty recorded in 2012 was 170,000 households or 7.1%. This figure was slightly lower than that in October 2011 of 190,000 households or 8%.

*Western Isles Figures:*

- Fuel poverty in the Western Isles in 2012 was 7,000 households or 58%
- Even though Scottish figures show a fall of 3.4%, the Western Isles figure in 2011 remained the same as 2012 at 58%
- The level of extreme fuel poverty recorded in 2012 was 21%. In line with Scottish figures, it is slightly lower than that of 2011 which was 23%.

The Western Isles face the highest level of fuel poverty within the UK by some margin. A large combination of factors lead to this worrying statistic. The main factors that can push a household into fuel poverty are; the energy efficiency of the home, the cost of fuel and the level of household income.

a. Energy Efficiency

The thermal quality of the home and the efficiency of the heating source determine the amount of energy that must be purchased to heat the home adequately. The energy efficiency of a dwelling depends largely on the physical characteristics of that dwelling. Factors such as the age of the dwelling, the type of dwelling and the extent of loft and wall insulation will all affect the thermal efficiency. From the graph below it shows that 40% of homes were built before 1950 when building regulations required little insulation and fuel costs were cheap.

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7 UK Fuel Poverty Monitor 2013-2014

8 Scottish House Condition Survey Local Authority Tables 2012-2012
http://www.scotland.gov.uk/Topics/Statistics/SHCS/LAtables2012
**b. Income**

Fuel poverty is first and foremost a subset of poverty and low income householders are those most at risk, however, it can also affect those on higher incomes who would not consider themselves to be poor. The Outer Hebrides have the second lowest mean equalised household income for all local authority areas in Scotland in 2007-08 (£21,600 compared to an average of £24,100) and in 2005-08 having the highest rate of relative poverty in Scotland (25% compared to an average of 19%).

**c. Fuel Costs**

The recent increases in the already higher-than-average fuel prices will certainly put additional pressure on the finances in many Western Isles homes and will undoubtedly plunge more into fuel poverty. It is difficult to measure the impact of fuel prices accurately as household incomes and other personal circumstances can change but a modelling exercise by the Progress Report on the Scottish Fuel Poverty Statement 2002 which was published in November 2010 suggests that as many as 46,000 more households (i.e. 2% of households) will be pushed into fuel poverty every time energy prices rise by 5%.

<table>
<thead>
<tr>
<th>Fuel Type</th>
<th>Western Isles</th>
<th>Mainland</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric (Scottish Hydro Standard Domestic – paying by direct debit and paper bills)</td>
<td>Unit Rate 15.61p Standing Charge 16.45p</td>
<td>Unit Rate 13.47p Standing Charge 16.45p</td>
</tr>
<tr>
<td>Oil (Certas Energy)</td>
<td>61.64p + 5% VAT</td>
<td>61.45 + 5% VAT</td>
</tr>
<tr>
<td>Gas (Standard Tariff with Scottish Gas)</td>
<td>Unit Rate 4.490p Standing Charge 26p</td>
<td>Unit Rate 4.490p Standing Charge 26p</td>
</tr>
</tbody>
</table>

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The Scottish Government has focused its efforts on the first of these three; energy efficiency, as this is the area where it can make the greatest impact and where it has greater powers to act. However, the vision of eradicating fuel poverty remains challenging despite considerable progress in increasing the energy efficiency of the housing stock in Scotland. Scotland has emerged from the worst economic recession since the Second World War and is facing severe restraints in public expenditure. This can have negative consequences for economic growth and household income due to the state of the employment market and changes to benefits. At the same time energy prices continue to increase due to movements in the wholesale markets.\textsuperscript{12}

\textit{d. Other Contributing Factors}

Alongside the three main drivers, there are many other aspects that contribute to making households fuel poor especially in the Western Isles. These include:

- The Western Isles weather conditions which create a longer heating season; this represents a real challenge in the fight against fuel poverty as residents face higher bills to achieve an acceptable degree of comfort.
- The high number of homes of poor build quality, according to the Scottish House Condition Survey states 91\% of homes in the Western Isles have a poor or moderate National Home Energy Rating (NHER) the Scottish average is 35\%.
- Lack of access to the gas mains network in the Western Isles restricts the consumer to more expensive oil, electricity or solid fuel heating.
- Under occupancy – this can occur when children have grown into adults and leave the family home, or because a spouse has died or left. There is often good reason for people not to move to a smaller home e.g. high crofting tenure and RSL waiting lists.
- Large detached homes – these incur higher heating costs due to exposure on all sides.
- Appliance Use – households use more appliances than they did 20 years ago. Low-income families are more likely to use older, less efficient appliances that have higher running costs.
- Reduction in peat cutting – whilst not being entirely free as there are costs incurred in the collection of peat, it is, in general, a low cost of heating, and the reduction in peat use has undoubtedly had an effect on fuel poverty in the Western Isles.

All these variables can change over time – household income can fall as a consequence of retirement, maternity leave, ill health, or changes in employment. Deterioration in the condition of

\textsuperscript{12} Progress Report on the Scottish Fuel Poverty Statement 2002 – November 2010 
a person’s house can cause its energy efficiency rating to fall. Fuel prices change over time and can vary and fluctuate with different types of fuel. This means that fuel poverty is not a static phenomenon, people can move in and out of fuel poverty as their circumstances change.

5. Who is affected?

Fuel Poverty affects the most vulnerable members of our society:

- Elderly people - particularly those living on their own with low incomes as they are at home most of the time, are generally less mobile and have less resistance to cold conditions. There is also an element of pride within the older, rural generation, which inhibits them from taking up benefits and grants.
- Single adults – who are the sole bearer of all household costs and for whom the benefits system does not adequately cater.
- Disabled people – who, like the elderly, are less mobile and at home for lengthy periods and require a more substantial heating regime.
- Large families, where adult members are either unemployed or working on a low income but they still need to provide warmth, which can be a substantial drain on financial resources.

6. How are they affected?

Fuel poverty can have far-reaching consequences for those affected:

- Lack of comfort
- Poor Health
- Excess winter deaths
- Debts to fuel companies and self-disconnection
- Deterioration of housing
- Marginalisation of people on low incomes within competitive energy markets
- Social exclusion
- Education impact
7. Methodology

The findings of this report come from a survey carried out between December 2013 and January 2014. The survey questionnaire was designed in partnership with Comhairle nan Eilean Siar, to be easy to complete whilst at the same time capturing as much relevant and useful information as possible. The survey had 19 questions which sought information on a spread of topics including:

- House type
- House size
- Age of property
- Tenure
- Build type
- Age of occupier(s)
- Household income
- Fuel costs
- Fuel type

The survey was distributed to all 12,000 homes on the Western Isles on the 9th of December 2013 and had to be returned by 20th of January 2014. There was also an opportunity for householders to complete the questionnaire online through Survey Monkey.

A large amount of advertising and marketing was also completed before the questionnaire was distributed this was done through local newspapers, local radio and television, community events and online through websites and social media. In addition to this and in order to encourage a large return, a free cash prize draw was offered to all who returned their completed survey forms, all of which helped to raise the awareness of the survey. To date we have received 2167 returns, this represents a response rate of approximately 18% which is considered to be a good return for a postal survey and thus constitutes a valid and robust dataset.

![Returns from Different Islands](image-url)
Responses came from all across the Western Isles providing a strong representative mix of all geographic areas, again providing a robust statistical dataset on which to base our analysis.