

# Energy Issues and Fuel Poverty

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The Church of Scotland

Church and Society Council

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## **Energy Issues and Fuel Poverty**

### **1 Summary**

*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 use.<sup>1</sup>*

**1.1** In recent years there has been a trend of rising domestic energy prices, leading to spiralling heating and lighting bills for householders. Over that same time it has become increasingly clear that urgent action is needed to avoid the catastrophic effects from carbon emissions on the earth's climate. The effect of both of these has been particularly severe on those struggling on limited incomes. Official figures show that levels of Fuel Poverty have risen, and behind the 'statistics' are individuals and families worried about the next bill and living in conditions that are bad for their physical and mental health as well as causing long-term damage to the fabric of their home.

**1.2** In this report we challenge the suggestion that this situation is inevitable. We also challenge the perception that Fuel Poverty is an unavoidable consequence of our efforts to reduce carbon emissions. The adverse impacts of Climate Change fall almost exclusively on the poorest people on our planet. In the same way, the effects of Fuel Poverty are felt most acutely by some of the most disadvantaged and vulnerable in our communities. Climate Justice and Social Justice are inextricably linked and we must address both.

**1.3** Addressing Fuel Poverty without adding to carbon emissions, raises complex issues and relationships between individuals, third sector organisations, energy companies, Local Authorities, the Scottish and UK Governments and Regulatory bodies, all set against the backdrop of turbulent energy markets and constantly changing regulations.

**1.4** We have been impressed by the work carried out by organisations such as Changeworks, Energy Action Scotland, Historic Environment Scotland and the Existing Homes Alliance. We believe that individual church congregations and members can play their part by joining Eco Congregation Scotland, supporting local initiatives on Energy Issues and Fuel Poverty, and improving the energy efficiency of their own homes and church buildings. Local Authorities and Housing Associations who have identified local needs and opportunities and put together sets of initiatives based on Community Energy are clearly helping to improve the energy efficiency of their housing stock and reduce Fuel Poverty.

**1.5** We recognise the support available from Scottish Government funding for energy efficiency improvements, and welcome their announcement in June 2015 that improving the energy efficiency of Scotland's homes and non-domestic building stock will be designated a National Infrastructure Priority. Nonetheless the Scottish Government has a statutory target that so far as is reasonably practicable, people will not be living in Fuel Poverty in Scotland by November 2016. We are disappointed that it seems inevitable that this target will be missed.

**1.6** It is disappointing that community energy initiatives, which promise so many opportunities to address Fuel Poverty locally, are being held back by multiple barriers which are unnecessarily placed in their way.

**1.7** Finally, we have been convinced that taking action to address Climate Change need not lead to an increase in Fuel Poverty. On the contrary, an approach which is founded on climate justice and social justice is the most effective way to provide affordable warmth that doesn't cost the earth.

### **2 Theological perspectives on Fuel Poverty**

**2.1** Our approach to Fuel Poverty is rooted in our faith. At its simplest God's desire for justice and care for our fellow human beings is emphasised throughout the Old and New Testaments. Meanwhile the whole basis of our environmental concern for God's creation highlights the need to take steps to reduce our impact upon the planet through measures such as energy efficient homes, for example. Therefore setting high standards in new house-building and supporting those most under pressure to improve the energy efficiency of existing homes is part of that concern.

**2.2** The modern concept of Fuel Poverty goes back no further than the last quarter of the 20th century, but the underlying problem clearly goes back to biblical times. Leviticus 14 deals with the problem of damp housing (with a clear role for the faith community). In Exodus 22:26 - 7, provision is made for a debtor who has given his cloak as surety for a loan to ensure that he/she does not suffer from the cold as a

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<sup>1</sup> <http://www.gov.scot/Publications/2002/08/15258/9955>

consequence. When James is seeking an example of failing to translate faith into action, he pictures those who ask God's blessing on those who lack what is needed to keep themselves warm while doing nothing about it.

**2.3** The apostle James writes: "What good is it for people to say that they have faith if their actions do not prove it? Can that faith save them? Suppose there are brothers or sisters who need clothes and don't have enough to eat. What good is there in your saying to them, "God bless you! Keep warm and eat well!" — if you don't give them the necessities of life? So it is with faith: if it is alone and includes no actions, then it is dead." (James 2.14-17)

**2.4** "Electricity isn't a commodity like copper or coffee" writes James Meek<sup>2</sup>. Rather, we need energy for the full flourishing of human life that God desires. The belief that market forces can deliver the most "efficient" solutions has not been borne out by consumers who experience Fuel Poverty.

**2.5** Rather than simply protesting about fuel companies' delays in passing on plummeting oil and gas prices, we should be asking the more fundamental question about why we leave such a staple of human life and flourishing (and such a gift of God) to be determined by a "market" which produces wide fluctuations in prices that are at best semi-detached from any reality beyond the calculations of speculators. The work of our own Economics Commission should prompt us to look for innovative forms of "fair energy" as well as fair finance<sup>3</sup>.

### **3 What is Fuel Poverty?**

**3.1** While Energy Policy is a reserved matter for the UK Government, the Scottish Government has a role to play in tackling Fuel Poverty, mainly through its responsibility for energy efficiency.

**3.2** When compiling the official statistics on Fuel Poverty, the Scottish Government calculations are based on a definition which has been in use since 2002. *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 use.*<sup>4</sup>

**3.3** If 20% of income is needed, the household is said to be in Extreme Fuel Poverty. Some critics have identified anomalies, such as wealthy individuals living in hard-to-heat mansions being technically in Fuel Poverty, and indeed the definition in England has been changed to one based on Low Income, High Cost (LIHC).<sup>5</sup> However, the definition given above is generally accepted and widely used.

**3.4** The first Fuel Poverty Statement was published by the Scottish Executive in 2002 and set a statutory target to ensure, so far as reasonably practicable, that people are not living in Fuel Poverty in Scotland by November 2016. In spite of this ambition, Fuel Poverty currently affects approximately 845,000 households in Scotland – equivalent to 34.9%<sup>6</sup> of all households, with 9.5% of households experiencing Extreme Fuel Poverty.

**3.5** Fuel Poverty is a complex issue with a number of interwoven strands:

- high prices in the domestic energy market
- weaknesses in the structure of that market
- poor energy efficiency in many of our houses and their heating systems
- weak economic circumstances (especially in rural areas)
- difficulties in improving the energy efficiency of existing homes
- adverse effects on the physical and mental wellbeing of those suffering Fuel Poverty

## **4 Domestic Energy Markets and High Energy Prices**

### **4.1 Energy Supply**

**4.1.1** Competition in the UK domestic gas and electricity supply markets began in 1996 and 1998 respectively. This put the provision of household energy into the hands of commercial organisations (both as suppliers and distributors) whose primary responsibility is to generate profits for their shareholders.

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<sup>2</sup> Meek, James: How We Happened to Sell Off Our Electricity. London Review of Books Vol. 34 No. 17 · 13 September 2012

<sup>3</sup> [http://www.churchofscotland.org.uk/\\_data/assets/pdf\\_file/0009/9765/Economics\\_Commission\\_email\\_and\\_web\\_version.pdf](http://www.churchofscotland.org.uk/_data/assets/pdf_file/0009/9765/Economics_Commission_email_and_web_version.pdf)

<sup>4</sup> <http://www.gov.scot/Publications/2002/08/15258/9955>

<sup>5</sup> Fuel poverty in England is measured by the Low Income High Costs definition, which considers a household to be in fuel poverty if they have required fuel costs that are above average (the national median level) and, if they were to spend that amount they would be left with a residual income below the official poverty line.

<sup>6</sup> <http://www.gov.scot/Resource/0049/00490947.pdf> Scottish House Condition Survey 2014, published December 2015

Despite 20 years of assurances that market forces would deliver great benefits to consumers, there is strong evidence that the market is not working, particularly for those who struggle to pay for their energy.

**4.1.2** In a joint State of the Market Assessment<sup>7</sup> report published in March 2014, the Office of Fair Trading, Ofgem and the Competition and Markets Authority found that:

- The six largest supply companies together account for almost 95% of both gas and electricity markets
- Over 60% of customers could not recall ever having switched supplier
- There was a very low level of trust in supply companies
- Customer satisfaction was low, and complaints had increased by 50% since 2011
- Customers belonging to vulnerable groups are likely to be paying more for energy

**4.1.3** The summary states:

*We have found weak competition between incumbent suppliers. This arises from market segmentation and possible tacit coordination. While we might expect competitive pressure from consumers or new suppliers, we have also found barriers to entry and expansion (including vertical integration) and weak customer pressure. These features combine and reinforce each other to deliver poor outcomes for domestic consumers.*

**4.1.4** The “barriers to entry” and “tacit coordination” imply particular challenges for small new entrants – most especially community initiatives. These concerns have manifested themselves repeatedly in press coverage of rapid price rises when wholesale prices rise but sluggish falls when the opposite happens. The Competition and Markets Authority is continuing its investigations, with a final report due in June 2016<sup>8</sup>.

**4.1.5** Under the rules of the Energy Companies Obligation (ECO), energy supply companies are legally required to provide measures (such as insulation) to improve the energy efficiency of their customers’ homes. Given the low level of trust in suppliers, it is not surprising that we heard evidence that customers, particularly those who were being pursued for debt, were very unlikely to take advantage of the help and advice being offered.

**4.1.6** People who suffer from poverty are particularly badly affected by the defects in the domestic energy market, often paying significantly more for fuel than the better-off. For example, to get the best deals you need to pay by direct debit and have internet or phone access to price comparison websites. People struggling against poverty often have limited banking facilities or access to the Internet so end up paying significantly more for their energy.

**4.1.7** While energy companies are not permitted to disconnect supply from vulnerable customers, they can install pre-payment meters which charge a higher rate and, in addition, are set to collect outstanding debts, meaning that the cost of energy for these households becomes significantly higher. Worse still, we heard of cases of debt from previous tenants, unknown to the new occupier, being recovered through a prepayment meter.

**4.1.8** Analysis of tariffs carried out in July 2015<sup>9</sup> by Citizens Advice showed that customers using pre-payment meters paid an average of £226 per year more than customers who were able to take advantage of the cheapest online direct debit deals - an effective surcharge of 22%. To manage costs many of these households “self-disconnect” by not using any energy at all. This means that the family have no heating, hot water or energy to cook.

**4.1.9** People struggling on limited incomes often prefer to use a prepayment meter as it helps in budget management. The higher rates for prepayment tariffs are an example of the Poverty Premium, where people in poverty pay more than the better-off.<sup>10</sup> There is a UK national programme to replace 50 million existing gas and electricity meters with new generation Smart meters. This will avoid the need for separate prepayment meters by giving people up to date information on their spending and energy usage. We believe it is vital to seize this unique opportunity to eliminate the current injustices.

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<sup>7</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/2014/03/assessment\\_document\\_published\\_1.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2014/03/assessment_document_published_1.pdf)

<sup>8</sup> <https://www.gov.uk/cma-cases/energy-market-investigation>

<sup>9</sup> <https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/media/press-releases/prepay-energy-customers-paying-226-a-year-more/>

<sup>10</sup> Another example of the Poverty Premium is the up-front cost of energy-saving measures, even relatively low-cost items such as low energy lightbulbs. While running costs are significantly lower, the initial purchase cost puts them out of reach for people struggling to manage on limited incomes.

## **4.2 Electricity Generation**

**4.2.1** In the UK electricity is generated in a variety of ways, ranging from large-scale conventional power stations to small local renewable schemes. In recent years there has been a dramatic growth in wind farms and solar panels, supported by government-funded incentives.

**4.2.2** The UK Government is now taking the line, supported by economists such as Dieter Helm,<sup>11</sup> that by removing these subsidies the market will function more efficiently, especially as renewable prices approach those of fossil fuels. The problem for the renewable energy market is that this removes the support which is necessary for young technologies to achieve full efficiency as they mature. It also overlooks the fact that much of the energy infrastructure in the UK has been funded from government and that the commercial viability of current generation methods is based on that previous investment. We believe that recent government announcements moving away from renewable sources and towards apparently cheaper gas-fired generation will make meeting our carbon reduction aims harder.

**4.2.3** At the same time the UK Government has announced a move away from coal and towards nuclear for electricity generation. While the former is to be welcomed, the latter brings other problems. It also withdrew funding from Carbon Capture and Storage, a technology which, if proven at scale, would not only have permitted coal stocks to be exploited without releasing carbon into the atmosphere, but would also be capable of doing the same for gas-fired generation.

**4.2.4** The combined consequence of these announcements is to move the UK towards reliance on a narrower group of technologies and to that extent, increase the risk to future energy security. If energy security becomes critical that will, in turn, put pressure on prices.

## **4.3 The Energy Efficiency of our Housing Stock**

**4.3.1** There are currently 2.5 million homes in Scotland, spanning a variety of styles, materials, sizes, locations, ages, and states of repair. These homes will also vary in terms of their heating source, wall types, levels of insulation, and states of repair.

**4.3.2** The introduction of the “Right to Buy” legislation in the 1980s saw a great change in home ownership in Scotland as in many parts of the UK. Scotland went from a position where 70% of all homes were classed as “social rented housing” and 30% owned/ mortgaged, to an almost complete reversal today. The 2011 Census showed that 62% of Scotland’s households were owned/mortgaged, 24% were social rented and 14% private rented. Despite this, Scotland’s social rented sector is larger than in any region of England & Wales, as is its rental sector overall apart from London which has a high level of private rentals.

**4.3.3** The Scottish House Condition Survey<sup>12</sup> was introduced in 1991 and uses sample surveys to track changes in the housing stock over time. This survey shows that the energy efficiency of social rented homes has risen significantly as a result of Scottish legislation such as the Energy Efficiency Standard for Social Housing<sup>13</sup> which came into force in 2014. In contrast, the homes in the owned/mortgaged and, in particular, the private rented sectors continually lag behind.

**4.3.4** New-build housing is designed to be energy efficient, but with only 20,000 new homes being built in Scotland each year<sup>14</sup>, it is clear that improvements in energy efficiency need to focus on the 2.5 million existing houses.

## **4.4 Rural Issues**

**4.4.1** A striking aspect of Fuel Poverty is its significantly higher incidence in rural areas which disproportionately affects Scotland. The Scottish House Condition Survey 2014 suggests that 50% of households in rural areas suffer Fuel Poverty, compared with 32% in urban areas.

**4.4.2** A major factor is that towns and cities are typically in more sheltered locations. Together with the ‘heat island’<sup>15</sup> effect, this means that urban houses tend to be in milder micro-climates. Rural communities are much less likely to be connected to the natural gas grid and depend on more expensive fuels such as heating oil and Liquefied Petroleum Gas (LPG). Rural houses tend to be larger and there are fewer apartment blocks which are more energy-efficient as they have less external wall surface area. Rural houses are often in more exposed locations and construction methods are also a factor, with e.g. solid

<sup>11</sup> <http://www.sccs.org.uk/events/67-prof-dieter-helm-what-s-wrong-with-british-energy-policy-and-how-to-fix-it>

<sup>12</sup> <http://www.gov.scot/Topics/Statistics/SHCS>

<sup>13</sup> <http://www.energyefficientsocialhousing.org/>

<sup>14</sup> <http://www.gov.scot/Topics/Statistics/Browse/Housing-Regeneration>

<sup>15</sup> See, for example, the Met Office document on Urban Heat

Islands:[http://www.metoffice.gov.uk/media/pdf/8/m/MO\\_PUP\\_insert\\_HEALTH.web.pdf](http://www.metoffice.gov.uk/media/pdf/8/m/MO_PUP_insert_HEALTH.web.pdf)

walls which are difficult to insulate. It is more difficult and expensive to access suitably-trained installers of energy efficient measures in remote areas.

**4.4.3 Regional pricing for electricity network charges, based on a historical view of centralised generation and 'remote' use of electricity, costs householders in the North of Scotland an extra 2p per unit compared with the cheapest regions. This is particularly unjust as areas with high levels of renewable generation are being charged higher prices, despite being surrounded by windfarms, and therefore not at all remote from the generation source.**

## **5 The Effect of Fuel Poverty on Health**

**5.1** The detrimental effects of fuel poverty can be seen in the physical and mental health of those who cannot afford to heat their homes adequately.<sup>16</sup> According to the National Health Forum: "Cold, damp, thermally inefficient houses which people cannot afford to heat sufficiently to protect their health are a peculiarly British public health scandal and an affront to human rights."<sup>17</sup>

**5.1** In most north European countries the death rate from December to March is higher than in the rest of the year. This is referred to as Excess Winter Deaths (EWD). According to the National Records of Scotland (NRS),<sup>18</sup> the EWD figure for Scotland in 2013/14 was 1,600. In 2014/15, despite it being a milder winter, it rose steeply to 4,060.

**5.2** Although there is no single cause of EWD most result from respiratory and circulatory diseases such as pneumonia, coronary heart disease and stroke, rather than hypothermia. Cold conditions in a home contribute to condensation, dampness and mould growth, causing problems for people with respiratory illnesses such as asthma.

**5.3** The UK has much higher EWD rates than countries with more severe climates, reinforcing that outdoor temperatures are not the key determinant. For example Finland has a significantly lower rate of EWD<sup>19</sup>. However, Scandinavian buildings have historically had higher levels of insulation and whole house central heating has long been the norm. One Scottish study concluded: "*EWDs are relatively easy to measure and may be considered as the acute outcome of cold, damp housing. Mortality, however, is at the tip of an expensive morbidity 'iceberg'. House conditions play a decisive role, not only in determining at what age adults die, but, more importantly, they impact on occupant health and quality of life.*"<sup>20</sup>

**5.4** In March 2015 the National Institute for Health and Care Excellence guidelines<sup>21</sup> made direct reference to the importance of alleviating Fuel Poverty and improving energy efficiency of homes as part of a strategy to reduce the number of EWDs.

**5.5** Worries about fuel bills and poor experiences of dealing with energy suppliers can lead to feelings of disempowerment, and as Sir Harry Burns,<sup>22</sup> former Chief Medical Officer, argued in the tenth Kilbrandon Lecture; Scotland's notoriously poor life expectancy is strongly linked to people feeling that they are not in control of their lives.

**5.6** Tackling Fuel Poverty will reduce the health inequalities that blight our communities and condemn people to live in conditions that cause significant harm to their physical and mental well-being.

## **6 Energy Issues and Fuel Poverty – what can be done?**

**6.1** In June 2015 the Scottish Government published its Heat Policy Statement, committing to firstly reducing the need for heat (e.g. through better insulation), secondly by ensuring an efficient heat supply, and lastly through the effective use of renewable or low carbon heat sources.<sup>23</sup>

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<sup>16</sup> "Living in a cold and damp home: frameworks for understanding impacts on mental well-being" C. Liddell & C. Guiney University of Ulster, UK

<sup>17</sup> Foreword to "Fuel Poverty and Health: a guide for primary care organisations, and public health and primary care professionals" National Health Forum and others, 2003

<sup>18</sup> The most recent information and statistics can be found at <http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/vital-events/deaths/winter-mortality/winter-mortality-in-scotland-201415>

<sup>19</sup> Healy JD (2003) Excess winter mortality in Europe: a cross country analysis identifying key risk factors, Journal of Epidemiology and Community Health

<sup>20</sup> Howieson & Hogan: Multiple Deprivation and Excess Winter Deaths in Scotland, Journal of the Royal Society for the Promotion of Health, vol 125 (2005), pp18-23

<sup>21</sup> <http://www.nice.org.uk/guidance/ng6>

<sup>22</sup> <http://www.gov.scot/resource/0040/00403544.pdf>

<sup>23</sup> <http://www.gov.scot/Topics/Business-Industry/Energy/Energy-sources/19185/Heat>

## 6.2 Improving Energy Efficiency of existing buildings

**6.2.1** Improving energy efficiency is viewed as the most cost effective means of reducing fuel cost and carbon footprint. Much of the progress made so far has involved straightforward improvements to loft and cavity wall insulation. Future efforts will need to include harder-to-treat older property with solid walls and harder-to-manage situations such as multiple-ownership tenements.

**6.2.2** The Scottish Government is planning new legislation<sup>24</sup> setting a minimum level of energy efficiency which houses must meet before they can be sold or rented privately, and also plans to make energy efficiency of existing buildings a National Infrastructure Priority. The Existing Homes Alliance estimates that<sup>25</sup> such a project aimed at improving the energy efficiency of all homes in Scotland to Energy Performance Certificate Band C level by 2025 would involve treating 127,000 houses per year at a total cost of £10.7 billion. This demonstrates the scale of the challenge, but the benefits include reduced fuel bills, lower carbon emissions, improved health and employment.

**6.2.3** The work carried out by Historic Environment Scotland in developing energy efficiency techniques for traditional buildings is impressive. Training takes place at their Engine Shed facility in Stirling, and is based on an approach which recognises that basic measures aimed at modest fabric upgrade are the most achievable.

## 6.3 Alternative Energy Technologies

**6.3.1** The renewable generation technologies which have emerged as front runners in the past ten years are solar photovoltaic (PV) panels and onshore wind, whose costs are now approaching parity with fossil fuels.<sup>26</sup> Some analysts argue that these technologies are now reaching their limit, and that new large-scale renewable generation methods must be developed. Offshore wind, tidal and intelligent grids all remain promising but recent UK Government announcements suggest it will be difficult to get the investment support required to bring them to commercial viability.

**6.3.2** But even within well-established heating technologies there are a number of ways of heating homes more efficiently. Combined Heat and Power (CHP) plants generate electricity (often from renewable sources such as wood pellets) and can provide hot water for District Heating, such as the scheme developed by Aberdeen City Council,<sup>27</sup> and the Cube Housing Association schemes at Broomhill and elsewhere in Glasgow.<sup>28</sup> However, at just 2% the UK has one of the lowest penetrations of District Heating in Europe, while most of Scandinavia exceeds 50%.<sup>29</sup>

**6.3.3** Heat Pumps offer a low-carbon way of generating heat. Air-source heat pumps act like a fridge in reverse, extracting heat from the outside atmosphere to increase the indoor temperature. Ground-source heat pumps extract heat from pipes buried in the ground, and water-source heat pumps can be used where there is a suitable loch or river. Heat pump technology is available for individual homes but is more promising as part of larger-scale District Heating systems because of the initial cost. An example of the technology is the ground-source heat pump system at Queen's Cross Housing Association's Westercommon flats,<sup>30</sup> and the water-source system at Drammen, Norway<sup>31</sup> developed by a Scottish firm.<sup>32</sup> Such schemes have the potential to offer relatively low cost heating in many locations in Scotland.

**6.3.4** Micro-hydro power schemes are now being proposed with heads of water as little as one metre, flexible photovoltaic textiles can be woven but need to be commercially developed, hydrogen fuel cells offer standalone solutions for more remote locations where the cost of grid connection may be prohibitive or where intermittent renewable generation needs surplus energy to be stored, while bioenergy covers a vast range of possibilities mostly in the early stages of development.

**6.3.5** At present these alternative technologies seem to be most attractive in new developments or as part of major renovation projects. One of the challenges is justifying the upfront investment, and individual ownership of houses makes the challenge greater. In Denmark developers are legally obliged to participate in community schemes, encouraging the use of CHP and District Heating. Without such

<sup>24</sup> <http://www.gov.scot/Topics/Built-Environment/Housing/sustainable/Energy-efficiency-private-sector-homes>

<sup>25</sup> [http://existinghomesalliancescotland.co.uk/wp-content/uploads/2015/10/EXHAS\\_jointstatement\\_Oct15.pdf](http://existinghomesalliancescotland.co.uk/wp-content/uploads/2015/10/EXHAS_jointstatement_Oct15.pdf)

<sup>26</sup> <http://about.bnef.com/press-releases/wind-solar-boost-cost-competitiveness-versus-fossil-fuels/>

<sup>27</sup> [http://www.aberdeencity.gov.uk/CouncilNews/ci\\_cns/pr\\_cornhill\\_chp\\_140114.asp](http://www.aberdeencity.gov.uk/CouncilNews/ci_cns/pr_cornhill_chp_140114.asp)

<sup>28</sup> <http://news.scotland.gov.uk/News/-10-6-million-heating-scheme-2118.aspx>

<sup>29</sup> <http://euroheat.org/Statistics-69.aspx - Statistics overview 2013>

<sup>30</sup> [https://www.qcha.org.uk/about/news/775\\_investment\\_news](https://www.qcha.org.uk/about/news/775_investment_news)

<sup>31</sup> <http://www.star-ref.co.uk/star/worlds-largest.html>

<sup>32</sup> Star Refrigeration: see <http://www.star-ref.co.uk/star/star-leads-the-way-with-world-s-largest-natural-heating-system.html>

incentives, the sheer scale of the existing infrastructure in Scotland suggests that there will be no dramatic changes to home heating systems in the short term.

## 6.4 Energy Advice

**6.4.1** Understanding the energy market, the true use of energy within the home and the cost of that energy are complex topics which many consumers find confusing. However, well-focussed energy advice is effective in reducing Fuel Poverty, offering “substantial benefits in terms of comfort, health and well-being”<sup>33</sup> as well as savings in energy costs.

**6.4.2** Advice providers include the Scottish Government’s Home Energy Scotland, Fuel Poverty charities such as Energy Action Scotland and Changeworks, Citizens Advice, and support organisations like Age Scotland. Alongside national organisations there are a number of local groups giving much-needed energy efficiency advice in their communities, a role that can be supported by church congregations. General information in the form of leaflets can be helpful, but direct personalised face-to-face advice is particularly valuable and we commend those who provide it.

## 6.5 Community Energy

**6.5.1** One of the most exciting new opportunities has been the development of community energy schemes across Scotland, particularly in rural areas. Community hydro-electric, wind power and biomass schemes have been developed in rural communities taking advantage of government initiatives to encourage energy companies to support low carbon electricity and community energy projects. The development of such schemes is difficult for communities but the rewards can be considerable and they do offer the opportunity of addressing Fuel Poverty locally by improving local economic circumstances. The Scottish Government defines community energy as: “... projects led by constituted non-profit-distributing community groups established and operating across a geographically defined community.”<sup>34</sup>

**6.5.2** The Energy Saving Trust reports that there were 361 megawatts of community and locally owned renewable energy operational in Scotland as at June 2014, from a total of more than 10,110 individual renewable energy installations.<sup>35</sup> The largest proportion of operational community and locally owned capacity is on Scottish farms and estates (146MW, or 41%). Community groups own only 13% of total operational capacity (46MW).<sup>36</sup> The amount of operational capacity in local authority ownership continues to grow: as of June 2014 Highland Council was leading the way with biomass installations amounting to over 14MW of operational capacity. Fife and Stirling Councils had the largest numbers of operational systems, at 520 and 4705 respectively, mainly domestic solar photovoltaic and solar thermal systems.

**6.5.3** The report also identifies that a further 115MW of capacity is under construction with a further 312 MW granted planning permission but not yet under construction. Clearly Scotland’s community and locally owned energy sector is growing fast, but is it really benefitting communities? In August 2014 the Scottish Government published a draft community energy policy statement. In the foreword the Minister, Fergus Ewing, set out the Scottish Government’s ambitions: “We are already powering towards our target to see 500 MW of community and locally-owned renewables by 2020, with 285 MW in operation this time last year. But this is not enough. We need to bring community energy in from the margins of energy policy to make it the central tenet of our future energy systems, where it has the potential to transform local economies.”<sup>37</sup>

**6.5.4** This ambitious statement was welcomed by the Church of Scotland in its response to the consultation paper, but as noted above, community owned renewables remain a relatively small percentage of the total and other locally owned schemes may have community benefit or may simply provide an income for the landowner.

**6.5.5** The experience of those who have developed community energy schemes suggests that for many it is a long and arduous process. The consultation document does not recognise the challenges that many face in trying to develop community energy projects. If we are to achieve the ambition of a much more widespread community energy economy then it will be essential to examine the barriers that lie in the way: what problems are experienced and how can we remove or reduce these barriers to make the process less arduous and traumatic for participants? Consideration of how this could be done will overlap with other

<sup>33</sup> Boardman, B and Darby, S, 2000, ‘Effective Advice: energy efficiency and the disadvantaged’, Environmental Change Institute, University of Oxford.

<sup>34</sup> Community Energy Policy Statement (Draft for public consultation) Scottish Government, August 2014

<sup>35</sup> <http://www.energysavingtrust.org.uk/reports/community-and-locally-owned-renewable-energy-scotland-2014>

<sup>36</sup> The full breakdown of capacity is: Farms & estates (41%), Local Authorities (16%), Community (13%), Local business (11%), Housing associations (10%), Public sector & charity (9%)

<sup>37</sup> <http://www.gov.scot/Resource/0045/00457876.pdf>

Scottish Government initiatives, particularly in relation to community development and economic regeneration.

**6.5.6** Representatives from a community energy project in Argyll explained in detail the complex and interlocking ‘spaghetti’ of problems that made the community energy scheme so difficult to progress, compounded by the often patronising or sceptical attitude of professionals in regulatory authorities. While the Scottish Government provides policy support to community energy it needs to address the multiple barriers and explore whether a simpler ‘one stop shop’ could help resolve this difficulty.

**6.5.7** A further major constraint which has affected a number of community energy schemes is the lack of capacity in the electricity transmission system to receive exported energy. The prohibitive cost and long timescales associated with network upgrades can result in otherwise excellent schemes becoming unviable. Indeed, some observers such as the authors of a Policy Brief from Strathclyde University’s International Public Policy Institute<sup>38</sup> point to concerns that National Grid, a commercial company, has a key role in the decision-making around community energy developments. They suggest that National Grid’s role as system operator might be taken on by a not-for-profit public agency, as in Australia.

## **7 Addressing Fuel Poverty in the Western Isles – a Case Study**

**7.1** The issues associated with Fuel Poverty are particularly prevalent in the Western Isles (Eilean Siar), which has the highest levels of Fuel Poverty in Scotland. The Scottish House Condition Survey Local Authority Tables 2011-2013<sup>39</sup> show that 62% of households in the Western Isles are fuel poor, and 24% are in extreme Fuel Poverty.

**7.2** In 2014 the Western Isles Council set up a Fuel Poverty Group which developed the Outer Hebrides Fuel Poverty Action Plan, with the aim of reducing Fuel Poverty levels in the Outer Hebrides to the Scottish average by 2025.

**7.3** Part of the plan is to create an Energy Supply Company which will take advantage of energy generation opportunities and a proposed interconnector, due to be completed in 2020, which will allow the Community to maximise the benefits of their natural resources by exporting electricity to the National Grid.

**7.4** The plan involves a number of different agencies working together, which highlights the importance of taking an integrated approach when dealing with Fuel Poverty. It can be extremely difficult for individuals to take the actions needed to improve the energy efficiency of their own home, and almost impossible for individuals to find ways of making fuel more affordable. Developments such as those in the Western Isles bring demonstrable environmental and financial benefits to their localities alongside very substantial social benefits.

**7.5** We commend the work done in the Western Isles and would encourage the setting up of similar schemes, particularly in rural locations. However, taking forward such ambitious proposals is dependent on government policy and changes in UK Government policy appear to put such plans at risk.

## **8 Conclusion**

**8.1** Following the 2015 General Election the UK Government moved to reduce or withdraw support from a range of measures to support renewables and at the same time reasserted its support for fracking and nuclear power. Critics of this decision suggested that it is incompatible with the UK Government’s commitment to reduce greenhouse gas emissions, as agreed at the COP21 climate change conference in Paris in December 2015.

**8.2** The Church of Scotland shares these concerns and calls upon the UK Government to make renewable energy and, in particular, community renewables a far higher priority.

**8.3** Some commentators talk about an energy ‘trilemma’, referring to the need to balance: Care for the Environment, National Energy Security, and Cost. Turning this on its head, the economic potential of an energy source can be used to generate local employment and a revenue stream for the community. There is an opportunity to create a virtuous circle where individuals and communities are more in control of their lives.

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<sup>38</sup> [http://strathprints.strath.ac.uk/53933/1/Turner\\_etal\\_IPPI\\_2015\\_scotlands\\_energy\\_needs.pdf](http://strathprints.strath.ac.uk/53933/1/Turner_etal_IPPI_2015_scotlands_energy_needs.pdf)

<sup>39</sup> <http://www.gov.scot/Topics/Statistics/SHCS/keyanalyses/LATables2013>

## **Deliverances agreed at the 2016 General Assembly:**

Recognise that the issues of climate change and fuel poverty must be tackled together and call on the Scottish and UK governments to do so.

Note with regret the UK Government's reduced commitment to renewable energy, and other measures to reduce greenhouse gas emissions; the withdrawal of funding for Carbon Capture and Storage trials, and the reduction in Energy Company Obligation funding, and call on them to commit to a programme of action which will lead to a reduction in our wasteful use of energy and the elimination of carbon from our energy sources.

Call on the Scottish and UK Governments to address unfairness in domestic energy pricing.

Regret that the Scottish Government will fail to fulfil its commitment to eliminate Fuel Poverty by November 2016, and call on it to address this issue as a matter of urgency pending the implementation of the National Infrastructure Priority on Energy Efficiency.

Commend congregations involved in local energy schemes and encourage others to consider how they might be involved.

Call on the Scottish and UK Governments to remove unnecessary barriers to Community Energy schemes.

Note with concern the problems caused by the current operation of the electricity supply, transmission and distribution networks in Scotland and call upon the Scottish and UK Governments to explore measures which address these.

### **For further information contact:**

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