

CIC Start Online – ACADEMIC CONSULTANCY

Scottish Energy Centre (HEI)

&

SOLAS Scotland, Ltd (SME)

EVALUATING & IMPROVING A MODEL FOR REDUCING FUEL POVERTY



**Inverclyde
West Dumbartonshire
East Dumbartonshire
Argyll & Bute
North Ayrshire**

PARTNERS DETAILS

FUNDING BODY: **CIC START ONLINE** - European Regional Development Fund (Lowlands and Uplands Scotland 2007-2013 programme) and SEEKIT programme of Scottish Government

CONTACT: **Dr Branka Dimitrijevic**
Director
CIC Start Online

Tel: 0141 273 1408
Email: Branka.Dimitrijevic@gcal.ac.uk
www.cicstart.org

ACADEMIC: **SCOTTISH ENERGY CENTRE, EDINBURGH NAPIER UNIVERSITY.**

CONTACT: **Julio Bros Williamson**
42 Colinton Rd,
Edinburgh, Scotland,
EH10 5BT
Tel: 0131 455 5139
Email: j.broswilliamson@napier.ac.uk Web: www.napier.ac.uk/sec

PREPARED BY: **Julio Bros Williamson** – Scottish Energy Centre - Energy & Building Consultant

REVIEWED BY: **John Currie** – Director of the Scottish Energy Centre,
Edinburgh Napier University

SME: **SOLAS Scotland Ltd.**

CONTACT: **Mr. Graham McLennan**
Managing Director
Solas Group, Ltd
Westonlea House,
41 Bonhill Road
Dumbarton
Scotland
G82 2DL
Tel: 01389 734414
Email: graham@solas.biz

Leanne Evans – leanne@solas.biz
Aaron Marshall - aaron@solas.biz

CONTENTS

1. Introduction.....	04
2. Overview of the LESS model.....	05
3. Scotland - Fuel Poverty & Its Demands.....	06
4. Green Deal & ECO.....	09
5. Case study comparison – Warm Zones England.....	09
6. LESS model example.....	11
7. Financial model.....	12
8. Conclusions.....	13
9. References.....	14
10. Appendices.....	15

1.0 INTRODUCTION

This report is the final product of the consultation provided to Solas Scotland Ltd for the evaluation and analysis of a scheme which focuses on reducing Fuel Poverty in Scotland called Local Energy Saving Scheme (LESS).

Fuel Poverty in Scotland has presented itself in various ways in most cases related to housing standards and efficient ways of heating and creating thermal comfort. If these are jeopardised and the ability to adequately heat a home becomes a burden and an economical struggle, then quality of life is affected and health issues can arise. When a house owner starts to spend more than 10% of the household's income in energy and struggles to pay it, the occupiers are referred to as a core group who suffer from fuel poverty.

The eradication of people suffering from this phenomenon has been a struggle for the Scottish Government for various years and especially with the recent economic downturn (2008 onwards) where job deficits have increased and fuel prices are rising constantly. Many Scottish families are struggling to keep up with high fuel prices but continue living in badly maintained homes, or simply homes that perform badly throughout. It has been calculated, according to research by the Office of the Gas and Electricity Markets (Ofgem) and various environmental change institutes in the UK, for each 1% price rise in fuel, at least 40,000 more households fall into fuel poverty¹, forcing people to make decisions about turning heating off or cutting back on food or building up debt. Inadequate heating contributes to "excess" winter deaths, which are already running at 27,000² a year. It also puts more pressure on a health service already strained by cuts, since it contributes to health problems.

The level of fuel poverty is measured directly by how thermally efficient the homes are. If a home is proven to be highly efficient in maintaining internal temperatures without increasingly boosting various heating sources, then it's demand for energy is reduced. If this is not achieved, the level of thermal capacity reduces thus the energy demand increases which results in higher energy bills.

Not all fuel poverty is caused by poor dwelling thermal conditions. In many occasions it can also be the inadequate administration of energy payments in the household. There are various ways of paying for fuel; It can be done directly on a monthly basis, or it can be paid by direct debit to a bank, or in many cases the households have pre paid meters. Dealing with many energy providers can make these payments complicated and hard to organise which can lead to higher bills and in some cases debt and energy "cut-offs".

AIMS AND OBJECTIVES

The main aim of this consultancy is to provide an independent and expert opinion on the LESS model developed and implemented by Solas Scotland Ltd. This has been developed after an inside view of the operation of the model and also after a review of all the services and advice the scheme provides to homeowners.

The objectives are as follows:

1. Understand and review the benefits and options that the LESS model provides
2. Evaluate the performance of the model and report on areas where improvements can happen
3. Report on a case study which exemplifies the use of the model
4. Compare the LESS model with other similar schemes in the UK
5. Review how the model can be implemented into other parts of Scotland

METHODOLOGY

The report has taken into consideration all of the information provided by the SOLAS team and has been looking at areas of improvement and success in comparison with other models being implemented in the UK. Many models fall under the same frame of thinking and obtain benefits from similar funding programmes. It is of importance to locate a scheme that provides all or as many of the services that the LESS model provides. Evaluation of the model requires an observed assessment which will indicate how the scheme actually works and solves the problems it seeks to answer. For this reason an explanation of a case study with results and pathways to helping the dwelling occupier will take place.

¹ Oxford University's environmental change institute "Demanding less: why we need a new politics of energy"- 2011

² The Guardian Newspaper – December 2011 "Fuel poverty affects a quarter of UK's households as bills soar and pay freezes"

2.0 OVERVIEW OF THE LESS MODEL

The Local Energy Saving Scheme (LESS) has been developed by SOLAS Scotland Ltd (registered Scottish Charity) originally an Insulation company. The need to address fuel poverty was born with the constant lack of thermally responsive schemes in Scotland dealing with the upgrading of properties with owners or tenants constantly over spending on energy bills. This became a great concern and through conversations with community and council members a need to address this was high on the agenda.

The LESS model is delivered locally around communities in five local Scottish authorities; Inverclyde, West Dumbartonshire, East Dumbartonshire, Argyll & Bute and North Ayrshire.

The scheme has been prioritising on the reduction of carbon emissions in existing stock throughout the mentioned councils of the West of Scotland with the option to grow systematically around Scotland.

It has managed to expand and develop their services with the help of various partnerships which not only support the work being done but also facilitate incentives and funding. Successful Partnerships with Scottish & Southern Energy (SSE), Strathclyde and Central Energy Saving Scotland Advice Centres (ESSAC), the Pension Service and local councils form part of the model. They have been particularly beneficial as they tie in with solving tenant's problems that can arise together with some of the solutions and funding that may be used.

The scheme has helped to reduce home energy consumption and the appropriate delivery of energy efficient improvements. Once applied and proven to be beneficial the model has helped families lessen the pressure into paying high amounts of money for energy.

There are two core benefits that are strongly related:

1. Energy efficient solutions & guidance
2. Community and owner engagement

The first benefit relates to the adequate rating of dwellings in accordance to its energy use by producing an Energy report (EPC) and assessment which will feed onto a target for the reduction of energy that can then be solved technically by installing and retrofitting (at various scales and in line with the homes constrains).

The second benefit relates more to community issues and healthy living among the dwelling users. With a better understanding of energy reduction measures and bills lowering, it is expected that thermal comfort will improve and therefore quality of life and health conditions will get better. This is achieved rightly so with LESS by problem solving with energy providers, obtaining funding and free insulation schemes, local engagement showing people where and what to do to save energy and community dissemination with schools and local groups.

The partnership with Scottish Hydro Electric or SSE has been particularly significant in the delivery of LESS. It provides the following:

- free thermal insulation to key group members
- subsidies for non-key group members

Other partners involved and heavily in line with the work ethic SOLAS Scotland and LESS conduct are the Pension services and the Energy Saving Scotland Advice Centres (ESSAC) from the Strathclyde & Central regions.

The Pension fund has facilitated and recommended the services LESS provides to people who fall into this genre in the "key group" which are entitled to receive discounted and free energy services and who in many occasions are the more affected and vulnerable.

ESSAC's are spread around Scotland and have a very similar set of priorities to the LESS model. Many of the targets and problems are widespread and LESS partnering with them has facilitated both ways. ESSAC's can deliver advice and have some engagement with communities, but are known to be delivering in a wider scale and with less person to person engagement. LESS in its model and delivery tries to provide a more personal approach to the people who are suffering from fuel poverty.

LESS is publically funded and no funds or profits are gained from the advice and community work that takes place. The priority is to deliver a service that is impartial and technically efficient helping the dwelling users to become more energy conscious and thermally more comfortable.

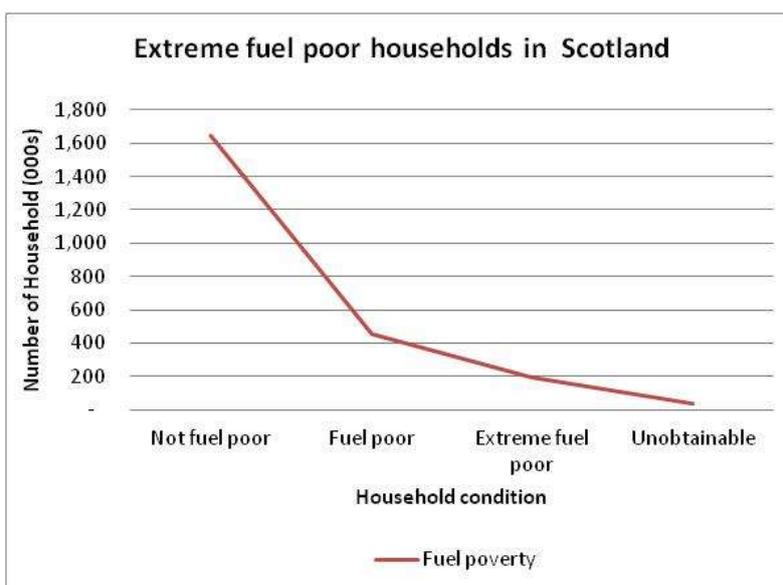
For more information in the way LESS operates please consult: "Solus and LESS – A best value Procurement Briefing" and SOLAS/LESS website - <http://www.solas.biz/>

3.0 SCOTLAND - FUEL POVERTY & ITS DEMANDS

Fuel poverty is experienced by many Scottish families that have encountered difficulties in paying fuel prices which are constantly on the rise. As a result, the cost of keeping a home warm and comfortable has at times been a real burden to carry, especially if the standards of living of many homes have declined and the economical scenario (jobs and cost of living) is in ill health.

Unfortunately, it's the elderly and the economically disadvantaged that are suffering from this as in many occasions they are living in thermally poor dwellings which consume high levels of energy to heat. For that reason it's essential to make sure new homes are apt for the most vulnerable people but equally it's important to make current stock dwellings rise to the optimum standards of energy efficiency that would require acceptable consumption of energy.

Around 900,000 households in Scotland, more than 1 in 3³ are estimated to be in fuel poverty. More importantly, it is estimated that there are 5 million fuel poor households in the UK⁴, which are not performing as they should and which will need upgrading in the next year, these properties are regarded as vulnerable dwellings occupied many times by the most affected fuel poor inhabitants. In many occasions the causes are a mix of poor energy efficiency of the dwelling, low disposable household income and the high price of domestic fuel. For every 5% increase in energy prices in Scotland as many as 46,000 households (2% of households in Scotland) are pushed into fuel poverty⁵. According to the most recent House condition survey in Scotland (2010), out of a total of 2,135 surveyed households, 70% were catalogued as not under the fuel poor banner while a further 19% were in fuel poverty and a more concerning 8% were in extreme fuel poverty. This indicates that 646,000 households in Scotland suffer in some degree from fuel poverty.



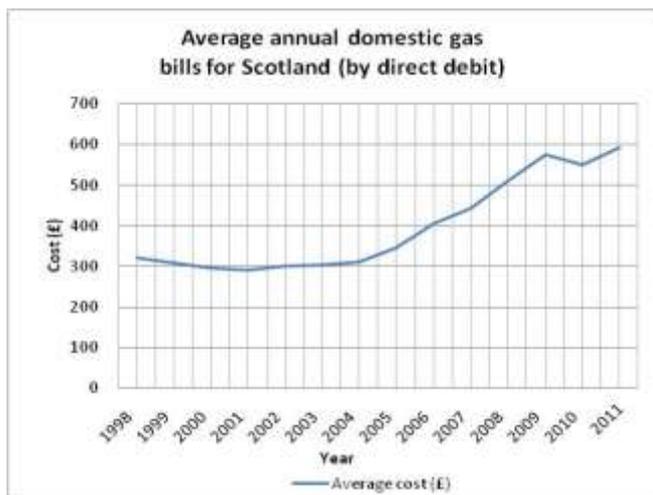
Graph 01 - Extreme fuel poor households in Scotland - Scottish Housing condition Survey

Fuel prices in Scotland, as in the whole of the UK, have been dependant on the energy suppliers managing and setting tariffs at an ease that is seldom controlled by government, sadly the energy users are there to pay for the consequences. This uncertainty and gradual increase in fuel prices has been especially radical in the last year (2010 – 2011) where a 5.5% increase in electricity and a 7.6% increase in gas have been experienced in Scotland; this is estimated with an annual consumption of electricity of 3,300 kWh and annual consumption of gas of 18,000 kWh. (Source: DECC 2012)

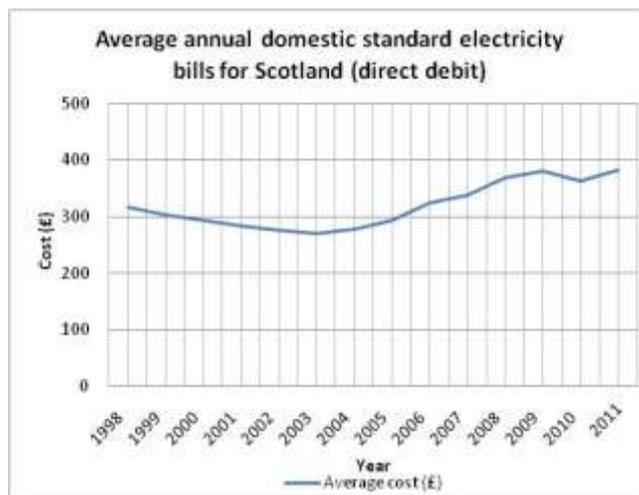
³ Energy Action Scotland 2012 – Fuel Poverty Overview

⁴ Energy Action Scotland 2012 – Fuel Poverty Overview

⁵ The Progress Update on the Fuel Poverty Statement (25 November 2010)



Graph 02 – Average annual domestic gas bills for Scotland



Graph 03 – Average annual domestic standard electricity bills for Scotland

As observed above, both fuel types experienced low payments during the late 1990's and a radical increase in payments show that during 2001-02 fuel prices went up reaching a peak in 2009. Domestic gas experienced an increase of 47% from 2003 to 2009 and a decrease of 5% from its peak in 2009 to the following year 2010. The recent increase in prices has also been affecting families as the average payment for gas rose by £42.00 from £550 in 2010 to £592 in 2011. Electricity has experienced a similar rise but not as substantial as gas. The late 1990's and early 2000's were a period in which average annual prices were lowering, to £271 per year in 2003 after that period a swift increase reached its peak in 2009 with an annual cost of £381. Just like gas, from 2010 prices lowered slightly but raised again from 2011 average at £383 per annum.

The above demonstrates how prices in both fuels are rising every year indicating that the needs for new measures of tackling fuel payment insecurity have to be implemented, just like the LESS model in western Scotland.

It is equally important for householders to appropriately manage energy bills making sure the right tariffs are being paid according to the use, but also to reduce fuel demand by increasing thermal conditions in Scottish homes. By applying energy efficient measures a contribution to the reduction of energy demand will reduce fuel bills.

Schemes like the Energy Assistance Package (EAP) and Home Insulation Scheme (HIS) can help to obtain efficient homes creating thermal comfort at affordable prices.

The LESS model uses similar schemes and tries to offer them to the struggling householders that need this assistance either by claiming such money or just by suggesting alternatives for insulation and the reduction of air infiltration. It has also been successful in obtaining CERT funding provided by energy companies and also other funding provided to struggling retired and unemployed people who can benefit greatly from incentives and free advice. These are facilitated by the Department of Welfare Pensions.

Energy efficiency in Scotland is in an uphill struggle as there is vast housing stock which is privately rented that doesn't necessarily reach certain standards which make tenants suffer with increased payments of fuel. Dealing with those cases can be difficult, but in the socially rented sector and the application of the Scottish Housing Quality Strands (SHQS) many councils and housing association homes are slowly reaching adequate standards. This does not signify that all this housing stock is comfortable and its fuel payments are low, it just indicates policy is acting on them and is making housing associations take conscious action. Help is still needed to facilitate this upgrading of homes not only for social housing but also for private homes that suffer equally.

Levels of energy efficiency relate to the condition of the homes fabric in combination with the efficiency of space and water heating devices (usually conventional boilers).

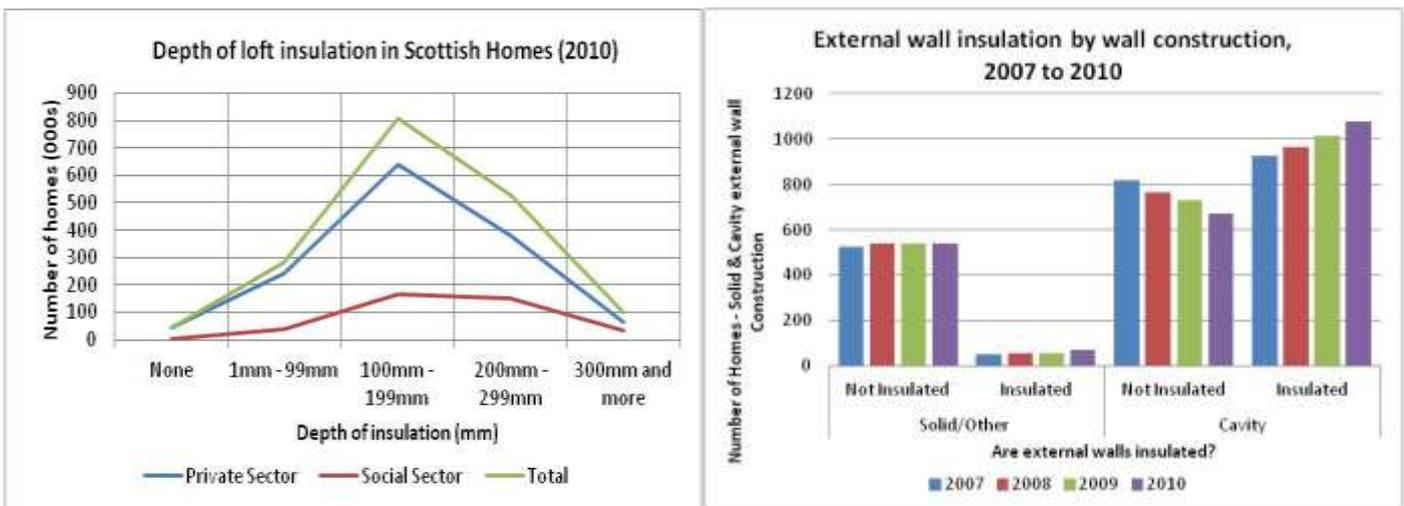
Focusing on buildings fabric energy efficiency are areas where the LESS model should concentrate by closing the gap on the amount of dwellings that lack insulation measures in components for example:

- Lofts
- Walls
- Bay windows

As well as reducing air infiltration in areas such as:

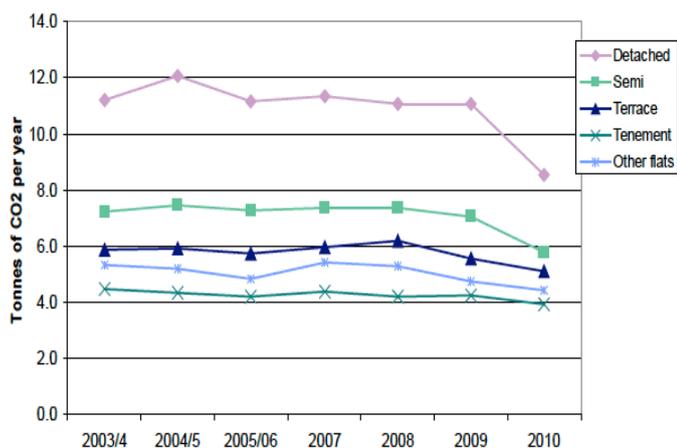
- Windows
- Skylights
- Doors
- Cracks or service holes

The Scottish government have issued statistics on the amount of dwellings that lack energy efficiency through the Scottish Housing Condition Survey. For example in Graph 04 below, the amount of homes with adequate insulation in their lofts (includes top flats in tenements) has been considerably low with the majority of homes (800,000) having between 100 and 199mm deep of insulation. The best practice depth is recommended to be between 250-270mm and only 500,000 homes achieve this. What the majority of homes have reasonable amounts of insulation, but where there is scope for the future is to encourage homes owners to top-up their insulation levels, and that is where schemes like LESS will be useful.

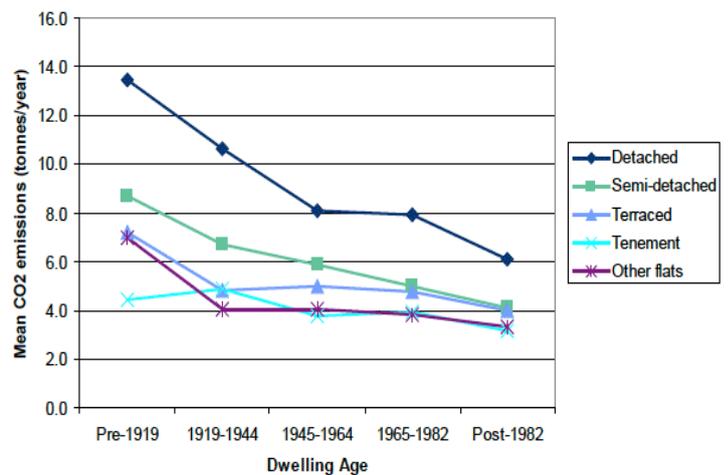


Graph 04 & 05 - Scottish House Condition Survey: Key Findings 2010 Energy Efficiency

In Graph 05 above, it is evident that solid walls need to be dealt with more than cavity wall insulation as most of the surveyed homes have been insulated from 2007 to 2010 and thus the un-insulated ones have lowered. Solid walls haven't been dealt with because they pose technical difficulties as many of them are solid stone walls that belong to pre 1919 type dwellings that may be listed or in conservation areas or are merely difficult to insulate. Once again – schemes similar to LESS should take advantage and help the solid wall dwelling owners.



Graph 06- Average CO 2 emissions 2003/4 to 2010 by dwelling type



Graph 07 - Mean CO 2 Emissions by Age and Type of dwelling 2010

The above graphs can give a clear indication of what house types are a priority for the reduction of carbon emissions linked to poor energy efficiency. It is clear that dwellings that have more wall and roof area are the ones that emit more. For example, detached dwellings have been known to be thermally less efficient compared to tenements and other flats as they tend to share walls with less exposure. Since 2003 these figures have been relatively constant and the only major change has been in 2010 onwards where detached dwellings have improved through increased cavity wall insulation (see graph 06). In graph 07 it is clear that the older properties, i.e. the pre 1919 detached dwellings (cottages etc) seem to emit more carbon emissions compared to the more up to date dwellings from the 1980's onwards. This is because building regulations have been tougher on thermal efficiency and also improvements are easier in these dwellings. It is clear that the dwellings that should be tackled first are those from pre 1919 and detached homes. The controversial aspect is that the majority of fuel poor people live in smaller properties (tenements and other flats) many of them in pre 1919 homes.

Methods and solutions have to improve tackling solid wall, pre 1919 properties as they are the ones in need of urgent thermal upgrades.

4.0 GREEN DEAL AND ECO

One of the more recent energy efficient schemes that the UK Government has proposed is the Green Deal, a challenging financial mechanism which allows home owners to pay back through their energy bills the up-front capital cost for retrofitting and upgrading their homes – with a focus on reducing energy bills. This means people who engage into this scheme can see the Green Deal charge alongside the reductions in energy use which generate savings on their bill.

In theory the home owner isn't tied to paying the loan if the property is sold, the financial obligation doesn't move with them but moves to the next bill payer, the charge is only paid whilst the benefits are enjoyed through lower energy bills. In this way, the Green Deal differs from existing lending - it is not a conventional loan since the bill-payer is not liable for the full capital cost of the measures, only the charges due whilst they are the bill-payer. This is a market mechanism, funded by private capital in many cases DIY companies and other agencies.

Alongside the Green Deal, the UK Government is planning to replace the existing energy company obligations (CERT). A new Energy Company Obligation (ECO) will focus energy companies on improving the ability of the vulnerable and those on lower incomes to heat their homes affordably, and on improving solid wall properties, which have not benefitted much from previous schemes. In some cases investment which can't be paid by the Green Deal will be done so by ECO. There will be some measures that the GD will not be viable to pay for and therefore the ECO can be implemented.

There are doubts over the implementation of the GD into older and hard to treat buildings, especially in Scotland where singular building types appear to be the more predominant (tenements) in comparison with England & Wales. The Scottish Government are working closely with UK Government to ensure the design of the scheme is deliverable to maximum benefit in Scotland.

The LESS model will have to adapt its delivery to fit GD & ECO schemes for customers who can obtain these incentives. One way of doing so is to have members of staff trained as GD assessors who can advise and calculate the potential use of the incentives in different homes. With SOLAS Scotland Ltd experience in housing stock and the delivery of insulation, this should be implemented giving more informative and accurate solutions.

There are debates on whether the GD and ECO can reduce fuel poverty. The actual energy bills will be fixed and it will only be the saving from them that will pay towards the loan used in the upgrades. This means energy bills will still be as they are and it is only when the loan is paid fully that the owners will experience lower paid bills. This doesn't help the fuel poor communities who need lower fuel prices initially while also an upgrade of their homes. Financial mechanisms should allocate special payback methods that can make the ease of re-payment much lighter while experiencing reduced monthly energy bills. This could be implemented only to recognised fuel poor individuals.

5.0 CASE STUDY COMPARISON – Warm Zone England

Warm Zone Groups were created in 2000 with Government support to develop new approaches to fuel poverty. Once this was set up initial pilot zones were established in 2001 in Hull Newham (London), Northumberland, Sandwell (West Midlands) and Stockton (Warwickshire) to trial different Warm Zone based approaches.

Warm Zones Limited (operated by National Energy Action, a fuel poverty charity with other partners) was set up with Government help to manage the trial Zones.

The Warm Zones trials showed that Warm Zones work. Warm Zones can bring help to rural communities, large cities, small towns, and local communities. Warm Zones also bring long-term sustainable benefits.

So far two of these pilot zones have been completed and many other zones have been added and are on track to create more completed zones which have had near to fully insulated homes with reduced energy losses through fabric.

Warm Zones aim to identify all households that need help (in particular the vulnerable and fuel poor) in a given area and give them all the available help in a concentrated, cost-effective way. Much of the work to deal with fuel poverty is about installing measures - thermal insulation, draughtproofing and heating to improve comfort in the home. At the same time, sound advice on energy efficiency and benefits entitlement can help to reduce the amount spent on energy and maximise household income.

Generally all Warm Zones deal with similar problems related to fuel poverty, but some cities and areas can be different with diverse social problems and particular housing types. For this reason help from social workers dealing with resident's problems and building surveyors dealing with technical aspects in homes are implemented. In many cases the scheme operates by word of mouth and community based encouragement events, for that reason the Warm Zone teams work with local community groups and organisations and advice workers to find as many people as possible who may need energy help.

The scheme offers:

- Home visits
- Free benefit health check
- Help with Income and Expenditure
- Help with applying for benefits

A referral service to partner organisations that could help with energy efficiency measures such as:

- Loft Insulation
- Draught proofing
- Cavity Wall Insulation
- Installation of free energy efficient light bulbs
- Installation of energy efficient central heating
- Free energy advice and check of your home
- Access to grants for any who are eligible

Some of the options that the partner organisations offer are:

- Low cost loft insulation
- Free energy saving light bulbs
- £200 cash back if you install an A rated gas condensing boiler
- Free reflector panels for gas radiators
- Interest free loans for low income families to install energy saving measures
- Free insulation and installation of a heating system (Council tenants)

The scheme also offers Community groups and Voluntary agencies the opportunity to:

- Arrange and provide advice at Community Sessions and drop in sessions
- Come to your organisation to give a presentation on the Warm Zone

At the moment Aberdeen City Council implements the Warm Zones scheme and there have been many breakthroughs in the reduction of fuel poverty.

In many ways the Warm Zone scheme has similarities with the LESS model. What is important to point out is that the Warm Zones success lies in registering and targeting zones and making special account that they engage and become energy efficient. What may lack in the Warm Zones scheme is how energy bill problems are solved by talking directly with local energy providers, something that the LESS model does do and is successful with. It also lacks the engagement with the Energy saving Trust and all the extra funding that may be offered by CERT and other schemes. LESS has direct involvement with the funders.

6.0 LESS MODEL EXAMPLE

During the development of the report there was an opportunity to visit a client who had requested assistance from the LESS team and also review two other cases with different problems. It was important to highlight in the report a typical approach by the LESS team indicating what their method of contact would be and how solutions would be dealt with.

The visit was performed to a client who had been referred to by a previous client who had a similar problem– this points out how word-of-mouth has been successful in approaching people. The LESS advisor filled in a “Home energy advice log sheet” which contains the basic client details and general aspects of the home, for example: type of tenure, property, age and number of habitable rooms. See annexe 01. Following that information the log sheet also has space for type of fuel, annual costs, payment methods and energy suppliers. There are other fields dealing with the heating controls in storage heaters and gas central heating, building construction, primary heating devices and any secondary heating.

The most important field in the log sheet is the advice provided and all the topics discussed in the visit in order to tackle the problems the tenant is experiencing. The following are discussed and/or information is provided.

- Budgeting
- Tariffs
- Reading meters
- Appliances – use & running cost
- Efficient use of heating systems
- Handy Hints
- Energy efficient appliances/labelling
- E.A.P
- Remedy condensation & dampness
- Insulation – draughtproofing, loft, cavity & floor insulation

Following these actions there can be referrals to an Insulation specialist – Solas Scotland Ltd, benefits health check or a Social tariff calculation.

The flat in question, located in Greenock, northwest of Glasgow, is occupied by a person who has struggles to pay for the energy used. The flat is installed with a conventional meter with an average payment per week between £15 -18 but at times, especially during the winter period, charges are close to £80-£90 per month. The payment of these charges has been delayed and the occupier has a big debt to pay mounting up to £620 built-up over the last 2 years. The LESS advisor has made this visit after a couple of previous calls and is now in the position to act on behalf of the tenant to deal directly with the energy provider (Scottish Power) to solve the problems.

The above situation is common in flats where thermal comfort is poor and people are deliberately turning down their heating to pay less as they cant currently afford to have comfort temperatures while also dealing with debt over previous payments. The flats belong to a housing association that previously had these flats on a heat-with-rent tenure which in theory made fuel payments in the region of £11.00 per week. This has now been taken away and ever since that change took place many tenants are paying more and some are in debt. Sadly, many of these apartments haven't been upgraded and refurbished as the cost implications are high. Poorly fitted windows, un-reliable storage heaters, draughts, steel frames (cold bridging) and badly maintained doors add to the increase in energy demand.

The solutions discussed were as follows:

- Energy bill assessment- The main problem of debt was resolved after many calls to the energy provider. The debt was lowered from £620 to £285 as claims can only be done from the last 12 months of debt. The new amount due was now £335. This re-payment was managed by installing a new key meter and a debt recovery rate of £3.40 per week instead of an expected £15.00. This debt will be paid over a longer period but it will lower the weekly payments (debt plus energy used)
- Advice is given on summer usage – It was recommended to keep the constant payments all year round to build up some credit over the summer period which can compensate the winter increase.
- Recommendations on using direct debit were given together with alternatives
- Advice on insulation grants and fitting of energy efficient light bulbs was given
- Free energy saving standby socket devices are given to minimise the amount of appliances left on during stand-by

Overall, the tenant now has been able to spread the debt that was pending and also get the opportunity to upgrade the home and increase thermal comfort.

Other case studies analysed looked at various other problems when dealing with energy providers. One common problem was the erroneous transfers through direct debit where clients were charged on false meter readings which did not match up. The LESS team are able to back track many of these problems by contacting the energy suppliers and requesting transfer payments and refunds. Sadly many times this involves constant phone calling to financial departments together with complaints to head office and a regular follow-up of the process. Many of these disputes can take between 6 and 12 months.

Another case study brought to light looked at a different type of advice. This time it was to advise the tenant on different types of boilers and installers. Additional to this, a review of the client's social condition indicated he was entitled to a full heating grant saving the client up to £230 per year with a full saving of £3,050 and energy savings per week of £6.34. There was also the opportunity to apply for a Universal Home Insulation Scheme (UHIS) grant which provided extra support on making the home more energy efficient saving around £145 per year on heating bills. This level of advice can be very rewarding because not only was the client saving on energy by installing new and more efficient heating systems and insulation, but the boiler and installation of both were covered fully by government funded schemes. See annexe 2.0, 3.0 & 4.0.

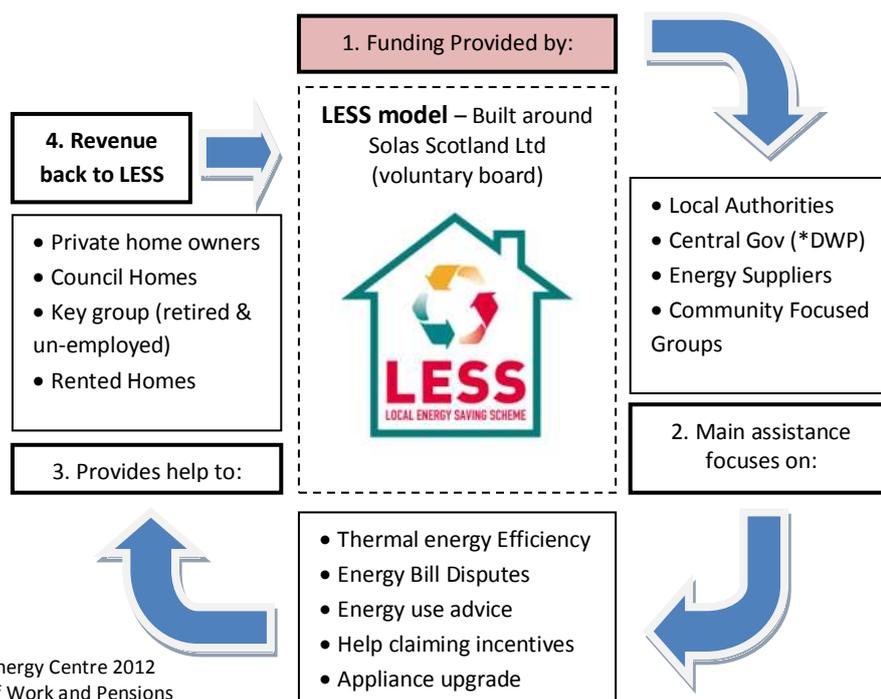
7.0 FINANCIAL MODEL

It is worth mentioning that the LESS model operated by Solas Scotland Ltd is fully independent and functions with a voluntary set of directors. The model doesn't generate funds that are paid back to the board of directors and any income that derives from the work carried out is delivered directly back to the community work that Solas and the model offer. This revenue is used to pay marketing, events, external payments for promotional purposes and other worthwhile needs in order to survive as a service.

The model depends greatly on the CERT funding delivered and divided into the selected work areas operated by different councils. The CERT funding which helps LESS directly is from the partnership between Scottish & Southern Energy (SSE) and Solas Scotland Ltd which is then applied to council community projects. The funding provided is part of a continuous scheme that will last as long as the model is in operation helping the communities and the people to leap away from fuel poverty. The CERT model will be replaced by the Energy Company Obligation (ECO) Scheme once in operation.

There is a strong link with the Energy Saving Trust and their Energy Saving Scotland Advice Centres (ESSAC's) as they have permitted Solas to manage certain regions and provide energy saving services. This has been properly controlled by Solas creating a service which can hopefully be replicated into different councils and areas in Scotland.

The Financial LESS model functions as follows:



Source: JBW Scottish Energy Centre 2012
*DWP – Department of Work and Pensions

8. CONCLUSIONS

The whole LESS model has been proven to be an effective and worthwhile scheme that can deliver cost effective advice to fuel poor households. With many variations and changes in funding schemes the model is flexible enough to be modified accordingly to suit new legislation and more importantly to comply with other councils objectives and problems.

It is clear that any changes to the model can come directly from the new funding streams provided by the government like the Green Deal and ECO. In order for the model to expand and reach other communities it will be essential for the LESS team to familiarise with the guidelines of GD and ECO and be able to assess buildings appropriately and with that in mind look at alternatives for improvement into households. This funding stream has the potential to help people become more energy conscious and thermally efficient but can also become a contradictory scheme in that it can add pressure to dwelling owners on repayments with energy bills keeping at a constant where clearly they should immediately go down with upgrades.

The future of LESS depends on the expansion to other council areas in Scotland. The dissemination of the schemes achievements and procurement method should be voiced out to other communities.

The clear barrier could be the wide scope of territory that the Energy Saving Trust has around Scotland. An alternative is to expand the LESS model just as it has done with the current communities and councils it deals with by partnering with the local ESSAC's and taking forward the scheme into new areas. This mode has proven to be very successful for Solas Scotland Ltd and LESS.

Taking in mind the wide gap that is being created in many households in Scotland with increased cost of energy, mass un-employment and also poor building conditions; the LESS model is got the capability to expand and provide its services until the proposed eradication of fuel poverty in 2016 and beyond by keeping housing conditions and continuing with its varied services of fuel bill disputes and energy efficiency.

The dynamic attributes that the model provides give it more importance and future as it not only deals with thermal housing conditions but it also deals with and provides the services of energy and funding which will always be part of homes and its tenants.

The thermal aspects of dwellings will always be an issue, mainly because many homes lack proper maintenance regimes and also because energy efficiency standards are in an increase. The Scottish Housing Quality Standards are at a constant review in line with tougher building regulations and pressure from external bodies seeking more efficient dwellings.

Experience on various housing types and their various building methods should be a priority to the LESS model. Dealing with solid wall solutions that predominate in many towns and cities in Scotland should create more thermally efficient homes. Solutions are not as straight forward as the common cavity walls but If LESS is to grow, a greater understanding on all types of solutions and upgrades is required, both in its application, its technical performance and economic pay back.

The LESS model can be regarded as cost effective. As this report points out, by being a dynamic and result orientated model, clients problems are easily attended with direct contact without referring to other stakeholders that could be involved. The model has close links with many organisations that provide resources and quick responses to client's doubts and problems. This makes the model much more cost effective in comparison with the rest. Many others rely on external organisations which respond different to those that are community based. The face-to-face attention that LESS provides resolves many problems as opposed to giving advice through the phone.

An alternative that would be able to facilitate many problems is to create a digital set of guidelines and spreadsheets that could make visits more practical and cost efficient. By creating an easier access pathway, the assessor or LESS team member would be able to look at solutions easily and voice them to the client while also digitally backing-up to a server in the office. These solutions may be orientated towards how to deal with thermally upgrading different types of walls and components while also indicating its cost and payback period. The possibility to link it to GD and ECO guidelines would save time and calculations.

Finally, from the statistics shown in section 3.0 it is clear that there is still a wide range of housing stock that needs to be dealt with. It is interesting to note that 457,000 homes in Scotland that fall under fuel poverty are privately owned dwellings compared to the publically owned council homes or homes under Registered Social Landlord (RSL) at 189,000 homes. The public homes have to oblige to certain minimum standards part of the Scottish Quality Housing Standards. It is very often the privately owned properties that fall into disrepair with low maintenance and little budget to upgrade.

This indicates a driver for the future of LESS as a model that can engage with the privately rented homes by helping the tenants who may have difficulties in convincing their landlords for upgrades.

9.0 REFERENCES

1. The Progress Update on the Fuel Poverty Statement (25 November 2010) – Scottish Government
2. Energy Action Scotland 2012 – Fuel Poverty Overview
3. Oxford University's environmental change institute “Demanding less: why we need a new politics of energy”- 2011
4. The Guardian Newspaper – December 2011 “Fuel poverty affects a quarter of UK's households as bills soar and pay freezes”
5. Research Brief: “Solas and LESS – A best value Procurement Briefing” – By Solas Scotland Ltd
6. Towards 2016 - The Future of Fuel Poverty Policy in Scotland - A Report by the Scottish Fuel Poverty Forum, 2008
7. Heating and insulation improvements from the Warm Front scheme - <http://www.direct.gov.uk>
8. Scottish House Condition Survey - Local Authority Report 2008-2010 - <http://scotland.gov.uk>
9. Information on Warm Zones England, Wales and Scotland - <http://www.warmzones.co.uk/>
10. Delivering the Green Deal 2012 – Public Servant magazine – March 2012 “The right methods at the right place” by Philip Sellwood.

2.0 Free appliance scheme with SSE

FREE APPLIANCE SCHEME 2011

SSE - Helping Low Income, Vulnerable Households

A Guide for Partner Agencies

Scottish Hydro energy made better

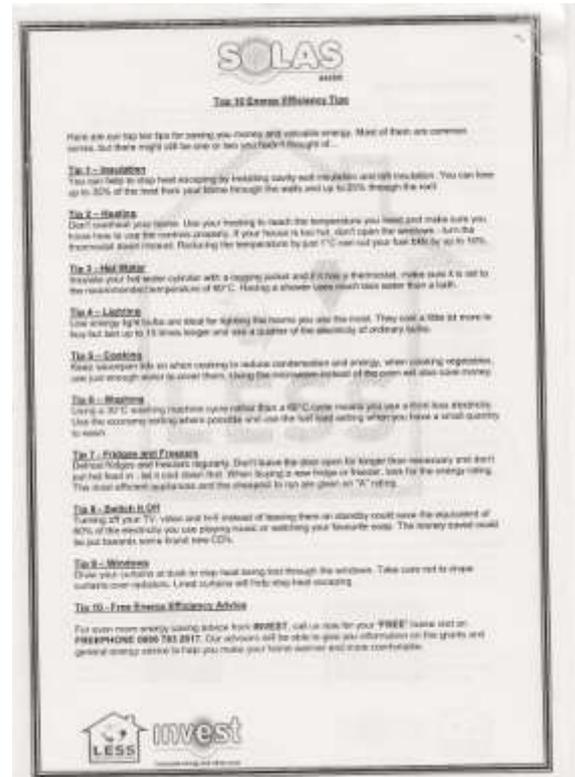
Southern Electric energy made better

SSE energy made better

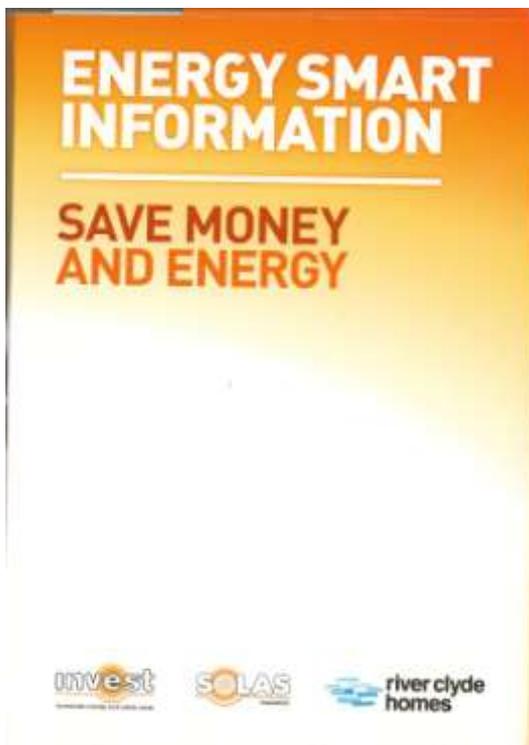
SWALEC energy made better

Atlantic energy made better

3.0 SOLAS Advice handbook



4.0 SOLAS pamphlets and advice leaflets



4.0 continued.....

FREE
HOME INSULATION FOR PRIVATE HOUSEHOLDERS IN INVERCLYDE

FREE LOFT & CAVITY WALL INSULATION FOR YOUR HOME

FREE ENERGY EFFICIENCY ADVICE

FREE PERSONAL ADVISOR TO MAXIMISE YOUR REDUCTION IN FUEL BILLS

For more information or to register for **FREE** insulation for your home, please call our team on

FREEPHONE 08000 19 82 20

Inverclyde council
natural scotland
SOLAS insulation

This grant offer is funded by the Scottish Government - part of a range of support through the Home Energy Scotland scheme

THIS IS A NEW AND LIMITED OFFER - FIRST COME, FIRST SERVED

SOLAS

'The Solas Way'
Solas aims to be a world leading social enterprise and this is what you can expect from us...

- We always strive to improve the lives of our customers, our clients and our colleagues and help the communities we work in to become better places to live
- We will always ensure the safety of our staff and customers is our highest priority
- We will always ensure the highest standards of quality, customer care and service
- We always get the extra mile for our customers every time
- We believe a happy workplace leads to better service
- We will encourage and support customers, clients and colleagues to give us feedback (good or bad), to help us continually improve our services
- We will carry photographic ID and we work on a strict appointment basis
- We always ensure the safety of our staff and customers is our highest priority
- We ensure every single Solas staff member is trained to the highest industry standard
- We have the utmost respect for every customer and their property. We conduct ourselves as an invited guest when in the customer's home
- We have arranged that every customer can call us free of charge
- We take customer complaints seriously (we don't get many) and you can be assured that complaints will be dealt with in a professional and timely manner

LESS
LOCAL ENERGY SAVING SCHEME
NORTH AYRSHIRE

Get in line for LESS before your next fuel bill arrives...

FREEPHONE 08000 19 82 20

SOLAS in association with NORTH AYRSHIRE

SOLAS
social enterprise

Supported by:
Scottish and Southern Energy

a unique energy adventure

A simple solution to a big problem...
The Solas Utility Initiative

4.0 continued.....

