

## **THE ENERGYCARER INITIATIVE – A DRAFT PROPOSAL**

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### **BACKGROUND AND INTRODUCTION**

The Highlands & Islands Housing Associations Affordable Warmth Group (HIHAAWG - a multi-agency group representing Housing Associations, and Local Authorities and Energy Advice Agencies operating in the Highlands & Islands) is currently working up a proposal, to be completed by late Spring 2016, that the Scottish Government consider funding a pilot “Energycarer” Initiative, which HIHAAWG also hope will assist the deliberations of the Scottish Rural Fuel Poverty Task Force. The Energycarer pilot project tackles four significant strategic areas of priority:

- Enhancing and ensuring the quality of energy efficiency and fuel poverty support delivered to rural and remote households, tackling existing market failure
- Providing an enhanced delivery of higher quality holistic support to vulnerable rural households
- Building effective collaborative bridges between the Health, Housing and Social Care Sectors
- Providing detailed, verifiable evidence of the outcomes of all aspects of the pilot to show how effective this Energycarer approach is at reaching rural households in need of holistic affordable warmth advice and support that improves their lives

### **The underlying drivers that justify this project include:-**

- Parts of rural and remote Scotland have the highest fuel poverty levels in the UK
- Shifting the balance of care to keep people living healthily and comfortably in their own homes rather than having to admit them to a hospital or care home
- Reducing households’ affordable warmth costs. (Documented energy costs in Skye and Lochalsh, Orkney and the Western Isles homes, for example, are at least £1000 a year higher than Scottish averages)
- Too many vulnerable households are increasingly self-disconnecting or rationing the purchase of heat due to these high costs (an estimated 20% of LSHA tenants are only heating a small proportion of their property)
- The comfort levels purchased are frequently poor and are not helping to mitigate health-related home warmth problems effectively. For example, cold weather temperature monitoring of one house on Skye occupied by an individual undergoing cancer treatment showed that the property had total energy costs of £3003 a year, but in cold weather never delivered the target temperature of 21°C let alone NHS guidelines of 23°C)
- There is no system in place currently to verify that the installation of energy efficiency measures delivers effective, real world, affordable warmth outcomes
- Helping to assess how best to remedy hard-to-heat and hard-to-treat traditional buildings, particularly in peripheral rural areas, which have few readily accessible solutions
- Vulnerable households need a lot more of the right kind of high quality, individualised support and there are too few specialist advisors and mentors available in rural and remote areas, as well as insufficient installers to match the nature and extent of the needs with the best effective remedies

## SUMMARY

It is proposed that the Government funds an extensive, cross-Scotland pilot for at least three years, installing Energycarers in at least eight principally rural locations and embedding them in the most appropriate local delivery organisation (although the model of support could equally be utilised in an urban context). The pilots need to be chosen to represent the diversity of rural and remote Scotland and to be supported fully by local strategic Health, Social Care and Housing partnership networks. Close links will need to be established between Handyperson, Care & Repair, Technology Enhanced Care, and Occupational Therapy services to ensure effective, coordinated delivery, and the programme will require strategic coordination in terms of implementation, delivery and post project assessment and evaluation.

## PROPOSAL

**An Energycarer's job is to ensure the delivery of verifiable, affordable warmth to vulnerable households.**

A vulnerable household is one where an occupant has health and support needs, and requires an accessible and well-performing, supportive home environment that delivers necessary affordable warmth and healthy humidity levels. If the appropriate comfort levels are not delivered then health suffers and ultimately the ability of the individual to remain in their home is threatened. <sup>1 2</sup>

Scotland has an aging population and it is a strategic Scottish Government health and social care priority to enable people to remain in their homes, comfortable, safe and healthy for as long as possible, with the aim to reduce time spent in expensive hospital and care home requirements. The Government also recognises that safe and warm affordable housing and care at home are key components of successful health and social care delivery for all. <sup>3 4 5</sup>

"Affordability" in the context of this definition is based on assessment of four elements – fuel type, national average costs, regional average costs and primarily the resources of the household - taking into account any eligibility for utility company support like warm home discount, statutory benefits and Government heating and insulation schemes. "Affordable" in essence means that a warmth outcome is realisable within household budget availability to the extent that it does not compromise other key household needs.

The successful development of Handyperson, Care and Repair, Telehealth and Telecare (*Technology Enhanced Care*) Services are all on the rise as they strive to deliver appropriate in-home support to match the demographic, health and cost pressures of an aging population and support the ethos of quality care in the community for all. These services, considered together, aim to secure people healthy and for longer in their homes, to reduce overall health and social care budgets and also preserve the happiness, physical and mental health of residents. **This Energycarer pilot scheme proposes that the delivery of verifiable affordable warmth becomes a similar strategic goal aligned to the same "prevention is better than cure" philosophy as these other services.** The proposed service is a significant fit for two of the Scottish Government's desired "National Outcomes" – "We live longer Healthier Lives" and "We have tackled the significant inequalities in Scottish Society".

These in-home support services all have common elements of **local delivery appropriate to local context**; they utilise local specialist contractors procured and managed locally, and in a rural context provide valuable **person-centred, and accountable** delivery. Delivering energy efficiency via this model, which has a proven track record of success in the Care & Repair and Handyperson programmes, has immense potential, and will **help tackle the current market failure for rural**

**households** trying to access professional energy efficiency advice and delivery in their homes. **An Energycarer pilot would be a key stimulant to enhancing the local energy efficiency market and ensure enhanced equality of access to energy efficiency and fuel poverty support.**

A wide range of ailments are exacerbated by cold and/or damp housing, and the delivery of effective affordable warmth in the home provides a more secure and reliable base for recovery, or can slow the onset of particular illnesses. <sup>6 7 8</sup>

In some homes, particularly where dementia is present, heating controls and heat emitters may need to be modified to improve usability and safety. In other homes temporary increases in heat levels are required to support health needs. On other occasions the creation of warm zones in a cool house may be required. It is estimated that cold and damp homes cost the NHS in the UK £1.6 billion per annum (Fuel Poverty Advisory Group, 2015). <sup>9 10</sup>

### **Existing Provision**

Under the umbrella of energy efficiency and fuel poverty measures vulnerable households are currently supported by energy companies through a range of targeted priority service schemes – including Priority Services Register, Warm Home Discount and Special Assistance Schemes.

Vulnerable households are also supported by Government and ECO funding through their eligibility for improved insulation, draught protection and heating measures delivered in Scotland via HEEPS and other schemes.

However although these measures, if implemented, will improve the ‘modelled’ energy efficiency of a property and in some cases a scheme provides help with bills, existing schemes do **not guarantee or verify that affordable warmth is delivered** – and cannot and do not confirm that a home is proven to be effectively heated to match the accepted target healthy temperatures and comfort levels.

Also, not all vulnerable households are eligible for such support which is frequently based on entitlements to benefits rather than actual health status. In addition the bureaucracy of having to apply for this support is often sufficient to deter many vulnerable households from claiming it. It is essential that energy efficiency measures are prioritised for those in true poverty and those with the greatest need.

A fundamental partnership between the Home Energy Scotland teams and the Energycarers is anticipated, and in particular an enhanced focus on the identification and seamless delivery of joined-up support for the most vulnerable households will be critical.

A health professional may in theory “prescribe heat” but it is argued here that the current model of energy efficiency delivery cannot verify delivery of that prescription. Scotland needs that delivery to be realised if it is to make best use of its energy efficiency budget to deliver real affordable warmth and an enabling and supportive home environment, with the consequent real world cost, health and carbon savings.

The total energy efficiency spend in Scotland is around £103m on a presumption that this spend delivers warm, energy efficient homes, but, peculiarly, the outcome is assumed but not audited nor verified. It is the experience of the Lochalsh & Skye Energy Advice Service that the installation of a measure, while a significant improvement to a property, does not necessarily secure an affordable warmth outcome for the resident.

That outcome is only met by ensuring a package of support, which may include effective insulation, effective draught protection, access to an efficient and easy to use heating system, good household

energy decision making and the purchase of fuels from the cheapest provider. An Energycarer deliver this holistic, person and home-centred approach, and through monitoring confirms attainment of goals.

**From a vulnerable person's perspective that outcome needs to be real and effective. An Energycarer provides the support necessary to deliver on this expectation.**

### WHAT IS THAT OUTCOME?

**VERIFIABLE, AFFORDABLE WARMTH MEANS ACHIEVING THE GOVERNMENT'S EXPECTED WARMTH OUTCOMES AT A COST EQUIVALENT TO NO MORE THAN THE REGIONAL AVERAGE FOR THE RELEVANT FUEL, PROPERTY TYPE AND PROPERTY SIZE, WHILE TAKING INTO ACCOUNT HOUSEHOLD INCOME LEVELS.**

*The Scottish Government through its 2002 Fuel Poverty statement and subsequent policy statements aspires that Scottish households achieve key affordable warmth outcomes.*

*"For elderly and infirm households, this is 23°C in the living room and 18°C in other rooms, to be achieved for 16 hours in every 24.*

*For other households, this is 21°C in the living room and 18°C in other rooms for 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.*

It must be recognised that not all households can afford the notional regional average price. Many households under-occupy multi-roomed buildings, have low incomes and few choices in the purchase of fuels.

However it is argued that it should be possible to make effective use of a package of improvements to at least secure delivery of warm zones in cool properties if a whole property approach is not realisable; the Energycarer will look to implement the most effective, economical solution to deliver the outcome. This may be seen as an admission of failure, but in many properties monitored by LSHA a reallocation of energy spend and heat input to key rooms delivers a warmth outcome not achieved by trying to heat an entire property.

The major outcome is the verifiable achievement of the desired warmth targets

Indirect outcomes, which will need to be properly assessed and evaluated, include the extent to which the project contributes to improved health outcomes. This is a challenging area, but indicators will need to be developed that show how an Energycarer's work contributes to stabilising health, improving health, avoiding care home and hospital admission and facilitating discharge, among others.

Key Performance Indicators will include

- No. of households assessed, supported and monitored
- No. achieving the target affordable warmth outcome
- No. of successful collaborations between Health, Housing & Social Care Sectors
- No. of eligible households successfully accessing Government heating and Insulation programmes

- Evaluation and performance testing of all of the applied solutions
- Interim and Final Project Reports

## **WHAT DOES AN ENERGYCARER DO?**

**An energy carer provides professional advice, practical intervention and close mentoring support to ensure that a vulnerable household achieves the warmth and comfort levels the household needs to help assist delivery of a positive health outcome**

### An Energycarer

- will act on the referral of a Health and Social Care or Housing professional, Home Energy Scotland, or a concerned family member, or following a direct enquiry from a concerned individual
- will carry out a full assessment of need in consultation with the household and relevant health and care professionals
- will confirm the particular health and warmth needs of the individual
- identifies what concerns an individual has in terms of securing affordable and appropriate warmth levels in their property
- plays a close mentoring role with the individual and/or any supporting family member or health service carer
- confirms the existing energy costs of the property through analysis of bills and payments, including the identification of energy supplier, tariff type and tariff rates and payment methods with the aim to identify annual and seasonal costs.
- confirms the existing comfort levels of the property through household interview, and where the season allows carries out relevant cold weather temperature, humidity and energy monitoring and thermal imaging
- carries out visual inspection of insulation in accessible lofts
- identifies areas of draughts and fabric cold bridging through internal thermal imaging and visual inspection of walls, floors, windows and ceilings
- identifies make and model of heating system and identifies all thermostats and controllers and provides user documentation if none exists in the property
- identifies the extent of the household's knowledge about the efficient operability of the heating system and provides any guidance that is lacking

**Once the needs and status of a vulnerable household are identified and the property assessed a support plan will be implemented and may include the following elements:**

- Identify likely eligibility for and helping people navigate Government insulation and heating schemes (e.g. Warmer Home Scotland). Work closely with Home Energy Scotland and, if needs, be act as full third party supporter for duration of application, installation and continue to support household after install (one additional benefit will be effective "outcomes" feedback to Government on the measure installed)

- Ensure any unmet benefit entitlement is realised in conjunction with a Home Energy Scotland Benefits and Tariff Check and support from local Citizens Advice Services
- Provide guidance to household and carers on the best way to use and monitor use of the heating system
- Advise on efficient and economical means of space heating
- Check whether thermostats are set to deliver appropriate temperatures
- Advise how to achieve energy savings by economical use of hot water heating
- Having identified draughts and other sources of unwanted ventilation advise and implement fixes in conjunction with any local care and repair or other support scheme
- Access eligible funding from the Energycare fund, Care and Repair and other services to install more localised fixes that are not available through national schemes such as increasing radiator sizing, introducing new easy to use controllers for the physically and visually impaired, install insulating curtains and blinds
- Advise on lifestyle issues that will affect the energy efficiency of the home
- Review and analyse historic energy use and helping householders interpret bills
- If switching electricity supply is beneficial, ensure household has access to professional switching support such as Citizens Advice Services
- Install permanently running temperature and/or humidity monitors for duration of support period to check conformity to targets
- Advise on appropriate electricity tariffs and metering where electricity is the main heating type
- If there is no eligibility for insulation or heating programmes identify the best in-house solution to deliver appropriate warmth including reallocation and reprioritisation of heat within the property
- Work out how to at the very least create some warm zones in a cool property through methods like installing insulated curtains, temporary room division, secondary glazing, draught sealing
- Have access to and provide additional temporary heat emitters for emergency use
- Ensure humidity is effectively monitored and managed and if needs be try to secure the installation of humidistatic ventilation
- Consider providing “personal heat” options so that an individual can be supported without a property and other less vulnerable family members being overheated

The aim is to secure delivery of appropriate warmth and humidity to ensure adequate comfort levels appropriate to need and monitor the house to ensure effective delivery of that need

## **THE BENEFITS OF AN ENERGYCARER NETWORK**

Creating a network of Energycarer projects will also act as a stimulus to boost the local energy efficiency market in peripheral and remote communities. Energycarers and Energycarer projects will work together to ensure that local contractors are encouraged to participate in the delivery of energy efficiency home improvements. In addition the Energycarers, acting as the on-ground eyes and ears of national delivery schemes, will be a key asset in gathering, sharing and comparing performance data and assessing outcomes and value for money in terms of affordable warmth and health outcomes.

## **HOW THIS PROJECT TIES INTO EXISTING POLICY DEVELOPMENT**

The Scottish Government has confirmed energy efficiency is a national infrastructure priority and has a clear commitment to develop a new ‘Scotland’s Energy Efficiency Programme’ (SEEP). A range of task forces are currently developing thoughts and proposals, and the Government is developing the scope of SEEP.

*“The detail of the programme [SEEP] is being developed and over the next two years the Government will be working with stakeholders, piloting new approaches with local authorities and other delivery bodies, and*

*undertaking further analysis to understand what is required and what is possible, before launching the new programme in 2018, after new powers over energy efficiency have been devolved to the Scottish Parliament” (Spice Briefing 2016 Domestic Energy Efficiency Schemes in Scotland)*

We anticipate that the three year pilot will be funded from existing Scottish Government budgets and understand that this will involve a reallocation of spend. Potentially, this could be regarded as a specialist, area based scheme. Ultimately it is hoped that this and other similar projects demonstrate that, in a health context, preventative spend to deliver verifiable affordable warmth pays for itself in reducing overall health spend. The use of local contractors will be managed through existing framework agreements and/or the normal care and repair competitive tendering process which currently delivers good value for money.

**We would like a substantial Energycarer pilot proposal to form a key part of the development of new policy and to that extent will be submitting a formal proposal in Spring 2016 for consideration.**

Interim Bibliography (and explanatory notes)

**1. Annual Report of the Chief Medical Officer, 2009**, states that ‘Staying warm saves lives. By failing to protect vulnerable people from the cold, tens of thousands of lives are endangered every winter... People living in poorly heated housing live in greater danger. Old, badly insulated properties offer significantly less protection against the risks of the cold than modern, warmer dwellings. Heating matters. Not having central heating is strongly correlated to a greater risk of death.’ It is estimated that every £1 spent on energy efficiency saves 42p for the NHS in the future.

Chief Medical Officer. 2009 *Annual Report of the Chief Medical Officer*. London: Department of Health; 2009. [http://www.sthc.co.uk/Documents/CMO\\_Report\\_2009.pdf](http://www.sthc.co.uk/Documents/CMO_Report_2009.pdf)

**2.Christine Liddell, 2008** ‘Being unable to afford a warm home (or fuel poverty) has been a known human health risk for some time, but it is only recently that the extent of risk has become evident.’

Liddell, C. 2008. Estimating the Health Impacts of Northern Ireland’s Warm Home Schemes 2000 – 2008. <http://uir.ulster.ac.uk/26173/1/FPcostbenefitsonweb.pdf>

**3.NHS Highland Board. The Highland Care Strategy: NHS Highland’s Improvement and Co-production plan. 2014.**

<http://www.nhshighland.scot.nhs.uk/Meetings/BoardsMeetings/Documents/Board%20Meeting%2012%20August%202014/5.5%20Highland%20Care%20Strategy.pdf>

Outlines NHS Highland’s vision for future delivery of health and social care services for people of Highland for the next 10 years.

‘Changing demography, increasing complexity of illness in an increasingly elderly population, increasing use of technology, developments in diagnosis and treatment and financial constraints are among the many substantial drivers for change in health service provision for Highland, Scotland and across the developing world.’

‘Our services are not always organised in the best way for patients; we need to ensure it is as easy to access support to maintain people at home, when clinically appropriate setting; as it is to make a single phone call to send them to hospital.’

‘We need to do more to make sure that care is always provided in the most appropriate setting; particularly recognising the challenges of providing high quality accessible health and social care in remote and rural settings’

There will be a focus on ensuring that people get back into their home or community environment as soon as appropriate, with minimal risk of re-admission.’

#### **4.Scottish Government 2011 – Reshaping Care for Older People -**

<http://www.gov.scot/resource/0039/00398295.pdf> 'There is a strong and clear preference by older households to live independently in the community for as long as possible. This was clearly recognised in the Scottish Government's Reshaping Care for Older People programme, which noted that institutional options such as residential care and nursing homes were very expensive as well as being seen as very much a last resort by older people themselves. It also noted that emergency admissions to hospital by older people cost £1.4 billion each year.'

#### **5.Health & Social Care: Winter in Scotland in 2014/15 report**

<http://www.gov.scot/Resource/0048/00482968.pdf> One of the 'six essentials' approach to improving unscheduled care across Scotland for winter 2015/16 – Ensuring patients are optimally cared for in their own homes or homes or homely setting... Managing the patient journey to promote living well and dying well at home includes a focus on patient led self-care and improved communication between whole system health care team.'

#### **6.Marmott Review Team, 2011, [http://www.foe.co.uk/sites/default/files/downloads/cold\\_homes\\_health.pdf](http://www.foe.co.uk/sites/default/files/downloads/cold_homes_health.pdf)**

'Homes which are inefficient and unaffordable to heat can have serious health impacts: cold conditions worsen chronic lung disease and asthma, suppress the immune system and reduce the capacity to fight off infection, leading to an increased risk of bronchitis and pneumonia (Donaldson, 2010, cited in Marmott 2011).

Cold housing increases the level of minor illnesses such as colds and flu and exacerbates arthritis and rheumatism'

'children living in cold homes are more than twice as likely to suffer from a variety of respiratory problems than children living in warm homes - mental health is negatively affected by fuel poverty and cold housing for any age group.'

#### **7.The Children's Charity produced report, Show Some Warmth, January 2015**

[http://www.childrenssociety.org.uk/sites/default/files/Show\\_some\\_warmth\\_full\\_report\\_1.pdf](http://www.childrenssociety.org.uk/sites/default/files/Show_some_warmth_full_report_1.pdf) ) 'There is a statistically significant link between children's breathing problems and not being able to keep warm. Our analysis of the English Housing survey found that over 20,000 children with breathing problems live in homes that cannot be kept warm due to the cost, making them twice as likely as other children to suffer these conditions.'

**8.**These results are similar to those found by **Howden-Chapman, et al., 2007**, - return of the National Retrofit Program in New Zealand <http://www.bmj.com/content/bmj/334/7591/460.full.pdf> 'Insulating existing houses led to a significantly warmer, drier indoor environment and resulted in improved self-rated health, self-reported wheezing, days off school and work, and visits to general practitioners as well as a trend for fewer hospital admissions for respiratory conditions.'

'A conservative cost-benefit analysis of this intervention trial indicated that the tangible health and energy benefits outweighed the costs by a factor approaching 2, when calculated in present value terms at a 5% real discount rate over 30 years, and that the energy savings component covered around half the cost of the insulation.'

**9.Fuel Poverty Advisory Group (2015).** Fuel Poverty Advisory Group (for England) 12<sup>th</sup> Annual Report, 2013 / 14 (London: DECC). 'Despite causing many thousands of deaths each year, the health risks of cold homes are not well-known to the public, and receive relatively little attention from the media and from policy-makers. Yet cold homes are estimated to burden the NHS with costs of £1.6 billion per annum (Fuel Poverty Advisory Group, 2015).

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/405588/fpag\\_12th\\_annual\\_report\\_2013\\_2014.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/405588/fpag_12th_annual_report_2013_2014.pdf)

**10.**According to a report by **Cambridge Economics for Consumers Futures Scotland** which examined the economic impact of improving the energy efficiency of fuel poor households in Scotland, positive health benefits and a reduction on NHS spending for cold-related illnesses are expected with improved energy efficiency in homes. However, their study has not quantified the energy efficiency savings on wellbeing and health outcomes due to the 'inherent difficulty in measuring these variables'. They cite a literature review

commissioned by Consumer Futures as part of a UK wide study (Jobs, Growth and Warmer Homes.. [http://www.e3g.org/docs/Jobs-growth-and-warmer-homes\\_Executive\\_Summary.pdf](http://www.e3g.org/docs/Jobs-growth-and-warmer-homes_Executive_Summary.pdf) which demonstrated that published estimates on the costs of cold homes to the NHS vary considerably.. The review also expressed the view that there is a lack of robust data and methodologies to establish a firm link between fuel poverty and the resulting costs to the NHS, which was also resonated by John Hills final report of the fuel poverty 2012 (<http://sticerd.lse.ac.uk/dps/case/cr/CASEREport72.pdf> The review suggested the cost of fuel poverty in the UK to the NHS is likely to be in the region of £600m to £1bn per annum and even this is likely to be a 'conservative estimate'. They state that this would equate cost for Scotland to be between £48m - £80m per annum for Scotland, using population as the basis of working out an indicative share of the burden on NHS. 'Whilst not providing a definitive figure, this, this does give a rough indication of the size of the problem and potential benefits of investing in energy efficiency upgrades in fuel poor homes in terms of avoided health spending' (this estimate is population based and does not take into account the current poorer health outcomes in Scotland which will increase the cost burden estimates)