Northern Exposure

Report on the

Door to Door local based approach in

Mount Vernon

Belfast

March 2016
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</table>
Protecting yourself from the cold relies on your ability to keep yourself warm in your home. However, this is becoming ever more challenging. Whilst the current cost of energy continues to fall this is against a backdrop where household incomes, poverty rates and the labour market have all worsened in Northern Ireland in the last five years. Thus, Northern Ireland now has some of the highest rates of fuel poverty in the UK.

Households on low incomes, living in poorly insulated houses with inefficient heating systems, are especially vulnerable to the cold. Living in a cold, damp home poses risks not only for a person’s physical health but also for their mental wellbeing as the cost of heating may lead to debt or stress.

Evidence confirms that cold weather can kill and causes considerable health problems, particularly for those with pre-existing health conditions. When people are exposed to the cold, they are at an increased risk of cardiac arrest, strokes, respiratory illnesses and falls. In Northern Ireland, approx. 900 people die as a result of the cold. For every person who dies; another 8 people will require treatment by their GP or in hospital for cold-weather related illnesses.

The Public Health Agency (PHA) is committed to addressing the causes and associated inequalities of preventable ill-health and lack of wellbeing. Thus, the PHA is delighted to have supported this programme to ensure people in the Mount Vernon area are aware of all the services available to them to help them avoid fuel poverty and the impact this can have on their health and wellbeing.

The vision of the Northern Ireland Fuel Poverty Strategy is for a society in which people live in a warm, comfortable home and need not worry about the effect of the cold on their health. Much work has been undertaken across Northern Ireland to tackle fuel poverty through partnership working, and we have been able to bring that learning to Mount Vernon to help build a more sustainable community.

The views, strengths, relationships and energies of local communities are essential in building effective approaches to improving health and wellbeing, and this has been very apparent in the Mount Vernon community. We commend them for the work they have done within their community and the positive and lasting impact that will have on some of the most vulnerable households in this area.

Seamus Mullen
Acknowledgements

We thank Billy Hutchinson, the community development officer at Mount Vernon Community Development Forum (MVCDF) for embracing this project and supporting NEA and a team of volunteers namely Amanda Ashe, Alan Quail, Carol O’Boyle and Alex Noble to bring about the successful outcomes of the project.

Belfast City Council (BCC) also played a crucial role in the project by funding the Home Safety Checks and advice provision, and providing the Winter Warmth Packs and through the Affordable Warmth Scheme. The BCC funding enabled North Belfast Advice Partnership (NBAP) to come to Mount Vernon and provide direct advice and benefit entitlement checks.

We also thank Energy Store for carrying out invasive investigations into a number of cavity walls in the area to ascertain the quality of the cavity wall insulation and the provision of any needed remedial action.

SSE Airtricity and Energy Store were also referral partners for the Northern Ireland Sustainable Energy Programme (NISEP) energy efficiency schemes which played a key role in this door to door intervention.

Particular thanks also to:

Una Lappin Belfast City Council
Claire O’Neill Belfast City Council
Lindsay Summers Belfast City Council
Jim Stewart - Energy Store
John Ross - SERC
Marie Fennel North Belfast Advice Partnership
Mandy Cowden - CLARE-CIC

Most importantly thank you to all the local residents of Mount Vernon who took part in the project helping to make it a success.
Introduction

Mount Vernon Community Development Forum

Mount Vernon estate is situated on the Shore Road in North Belfast. It sits proudly under the grandeur of Cave Hill. Mount Vernon Community Development Forum was established in 1995 with the purpose of alleviating poverty and developing the skills of individuals and the Community to engage with Government. The Forum consists of more than eight groups who are connected to the strategic aims and are engaged in a range of activities consistent with a ten-year development strategy for the area. The strategic areas are: Education; Environment; Employment; Young Families; Youth; Community spirit (cohesion); Arts, sports & culture; and Health.

NEA and the Northern Exposure project

National Energy Action (NEA) is the national charity which aims to eradicate fuel poverty and campaigns for greater investment in energy efficiency to help those who are poor and vulnerable.

Northern Ireland has the highest rate of fuel poverty in the United Kingdom. Currently 42% of households struggle to pay for the warmth required for good health and well-being.

National Energy Action Northern Ireland (NEA NI) works to tackle fuel poverty in Northern Ireland. It seeks to achieve this through research and policy development, the provision of accredited energy efficiency training and through projects such as Northern Exposure.

Northern Exposure

Northern Exposure is a project delivered by NEA NI, it is funded by the Public Health Agency. It is an action based, community development project, designed to tackle the high levels of fuel poverty in Belfast. It promotes energy efficiency services and
interventions to tackle heating and insulation problems of low income households by working in partnership with statutory, community and voluntary organisations.

**Background to the Warmth in Mount Vernon Project**

Following on from a successful door to door intervention in another part of Belfast NEA NI and the Public Health Agency (PHA) approached the Mount Vernon Community Development Forum (MVCDF) to discuss the possibility of carrying out a local door to door intervention in the area to bring energy efficiency improvements to the residents of Mount Vernon. MVCDF agreed that the project would bring great benefits to the area and with an active team of volunteers able to conduct door to door questionnaires, the area was ideal. Once agreement was established a range of partners were engaged. Belfast City Council (BCC) and North Belfast Advice Partnership (NBAP) came on board adding value to the intervention through additional services such as benefit entitlement checks and money advice to those who needed this.

From early on a lack of benefit advice provision in the Mount Vernon area was identified as a key issue. As a consequence BCC agreed to fund NBAP to provide a key worker to be available at MVCDF for one day per week for the duration of the project enabling householders to utilise the service in their own area. The advisor could contact the householder by telephone or meet them in the community house or directly at home.

NEA NI worked directly with organisations who could provide a range of energy efficiency interventions including loft insulation, cavity wall insulation and gas fired central heating systems. These measures which are secured through the Northern Ireland Sustainable Energy Programmes (NISEP) are targeted at low income households and can save the households significant savings on energy bills. Sitting alongside these schemes, the Department for Social Development’s (DSD) Affordable Warmth Scheme aims to alleviate fuel poverty across the privately owned and privately rented sectors. As a consequence the project steering group agreed that we should focus on these housing tenures.
The Northern Ireland Housing Executive (NIHE) provided NEA with a map which listed the homes that were non NIHE houses in the area making it easy for MVCDF to target the appropriate households of which there were 114.

MVCDF identified volunteers who would take part in the project by knocking the doors and carrying out the door to door questionnaires with the targeted households. NEA provided training sessions for the volunteers on fuel poverty and energy efficiency and also outlined the project, its aims, objectives, and planned outcomes.

Members of the MVCDF also attended the NEA / City & Guilds Energy Awareness course and two went on to achieve the level 3 qualification. This qualification is an industry best practise and will be of great benefit to those working in the community not only in terms of personal development but also in enabling these volunteers to gain this widely recognised qualification.

The Warmth in Mount Vernon Initiative

The Questionnaire

In partnership with MVCDF a questionnaire, used previously in the ‘Achieving Warmth in Whiterock / Westrock’ project, was tailored to suit the Mount Vernon project.

It was agreed that following completion of the questionnaire, the MVCDF would upload the data form to SPSS Statistics (a software package used for statistical analysis). Information would then be extracted from the data and passed on to NEA. The questionnaire was designed to enable NEA to assess the householder for eligibility for energy efficiency grant schemes, e.g. for insulation, improvements to their heating system, a Home Safety Check, a Winter Warmth Pack and a Benefit Entitlement Check.
Partners

*Belfast City Council (BCC)*

As outlined above, there was agreement with BCC to fund NBAP to provide an advisor service in the Mount Vernon area. It was also agreed that Home Safety Check referrals could be made to the BCC and that 40 Winter Warmth Packs consisting of fleece body-warmer, thermal underwear, gloves and hat would be available for the project. The NEA Project Coordinator made referrals as appropriate and the MVCDF delivered the Winter Warmth packs when the completed questionnaires were assessed for eligibility.

Referrals were also made to the Affordable Warmth team for anyone who met the Affordable Warmth Scheme self-referral criteria.

*North Belfast Advice Partnership (NBAP)*

Funded by BCC, NBAP agreed to deliver a service in Mount Vernon by making an advisor available in the area during the project. The advisor carried out Benefit Entitlement Checks in the Mount Vernon Community House and also provided home visits when required. NEA also made some referrals to NBAP when the questionnaires were assessed.

*Northern Ireland Sustainable Energy Programme (NISEP) schemes*

Energy Efficiency referrals were made to a range of NISEP funded schemes. These referrals spanned across two financial years. They can be complex to navigate due to the different eligibility criteria across programmes.

*Energy Store*

Energy Store carried out five invasive surveys on houses where the householder reported that they believed there was a problem with their cavity wall insulation. The
MVCDF worked with the residents and selected five properties which were referred to Energy Store.

**CLARE CIC Project**

NEA also linked in with the local CLARE project which is a community led voluntary organisation that enables vulnerable adults and older people to maintain their independence and reduce feelings of isolation and loneliness. This link meant that householders who needed extra support to participate in the project received it from the CLARE project social worker. The social worker ensured those householders targeted through this project had additional information and support ensuring that they understood in detail the process for the Warmth in Mount Vernon project including who would be in contact with the householder and what interventions may take place.
Main Findings

Demographics

Home visits were carried out within the community of Mount Vernon and 40 questionnaires were completed.

Household size

The questionnaire asked for the number of residents in each property including minors which gave a sample of the household composition.

Age groups within households

Households with children under 16 living in them

<table>
<thead>
<tr>
<th>Children under 16</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>26</td>
<td>65.0</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

How many people living in your home are aged 65-70 years

<table>
<thead>
<tr>
<th>Aged 65-70</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>36</td>
<td>90.0</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>
How many people living in your home are aged 70 years or over?

<table>
<thead>
<tr>
<th>70 years or over</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>35</td>
<td>87.5</td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

_Tenure_

Homeowner and privately renting households were targeted in order to assess their eligibility for energy efficiency grants. These grants are aimed at homeowners and private renters. Those who completed the survey were of the following tenure:

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homeowner</td>
<td>34</td>
<td>85.0</td>
</tr>
<tr>
<td>Privately renting</td>
<td>6</td>
<td>15.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Household income**

Eligibility for the Northern Ireland Sustainable Energy Programme (NISEP) is based on tenure and total household income. Part of the eligibility for the Affordable Warmth Scheme is also based on these criteria. The income of each of the 40 householders is broken down as:

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than £20,000</td>
<td>25</td>
<td>62.5</td>
</tr>
<tr>
<td>£20,000-£22,000</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>£22,000-£25,000</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td>£25,000-£30,000</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td>£30,000-£35,000</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>£35,000-£40,000</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>£40,000+</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

As outlined above 62.5% of the households taking part have a total household income of less than £20,000 per annum.

**Houses and home energy**

<table>
<thead>
<tr>
<th>Heating systems</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heating Type</strong></td>
</tr>
<tr>
<td>Central heating system (boiler and radiators)</td>
</tr>
<tr>
<td>Room heaters or fires</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
### Heating systems

<table>
<thead>
<tr>
<th>Main Heating Fuel</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural gas</td>
<td>15</td>
<td>37.5</td>
</tr>
<tr>
<td>Oil</td>
<td>25</td>
<td>62.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### Secondary heating

Householders were asked if they ever used alternative sources of heat in addition to their main central heating system. A total of 16 households out of the 40 were using additional and often more expensive heaters as well as their main central heating system. 13 of these were using electric heaters.

### Heating controls

Householders were asked if they had specific controls to manage their central heating system. The following controls were listed in the survey:

- Programmer/timer
- Room thermostat
- Thermostatic radiator valves
- Cylinder thermostat
- Boiler thermostat
The chart below illustrates the heating controls being utilised:

<table>
<thead>
<tr>
<th>Tenure</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programmer/Timer</td>
<td>33</td>
</tr>
<tr>
<td>Room Thermostat</td>
<td>8</td>
</tr>
<tr>
<td>Thermostatic Radiator Valves</td>
<td>9</td>
</tr>
<tr>
<td>Boiler Thermostat</td>
<td>15</td>
</tr>
<tr>
<td>Cylinder Thermostat</td>
<td>3</td>
</tr>
</tbody>
</table>

*Age of boiler*

Householders were asked the age of their boiler, 4 householders were unsure what age their boiler was. 45% of the replies showed the boilers to be over 15 years old.

<table>
<thead>
<tr>
<th>Age of boiler</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 15 years old</td>
<td>18</td>
<td>45.0</td>
</tr>
<tr>
<td>More than 15 years old</td>
<td>18</td>
<td>45.0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4</td>
<td>45.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Hot water tank insulation**

Householders were asked if they had a hot water tank if it was insulated:

<table>
<thead>
<tr>
<th>Hot water tank insulation</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>No cylinder</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>No insulation on cylinder</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Cylinder with jacket</td>
<td>24</td>
<td>60.0</td>
</tr>
<tr>
<td>Pre-Insulated jacket</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Don’t know</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
<td><strong>100.0</strong></td>
</tr>
<tr>
<td>Unanswered</td>
<td>5</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Cavity wall insulation**

Householders were asked if they had any cavity wall insulation, to their knowledge.

<table>
<thead>
<tr>
<th>Cavity Wall Insulation</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>18</td>
<td>45.0</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>Don’t know</td>
<td>12</td>
<td>30.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
<td><strong>95.0</strong></td>
</tr>
<tr>
<td>Unanswered</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
From discussions with the MVCDF it was highlighted that there were problems with the cavity wall insulation in the area. This was reflected by the comments in the questionnaire when asked about cavity wall insulation which included:

- Been in years
- But it is ineffective
- Cavity wall insulation was done a long time ago
- Ineffective
- Ineffective ball type
- Limited
- Loose expanded polystyrene
- May been done unsure
- Not very good
- Problems
- U Hu Glue
- Would like it all over the house
- Wouldn't think so every time If there is a high wind it blows out like snow falling

**Loft insulation**

Householders with loft insulation:

<table>
<thead>
<tr>
<th>Loft Insulation</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>13</td>
<td>32.5</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Partial</td>
<td>16</td>
<td>40.0</td>
</tr>
<tr>
<td>Don't know</td>
<td>7</td>
<td>17.5</td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>97.5</td>
</tr>
<tr>
<td>Unanswered</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Dampness**

<table>
<thead>
<tr>
<th>Dampness</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>26</td>
<td>65.0</td>
</tr>
<tr>
<td>No</td>
<td>14</td>
<td>35.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The list of areas within the home listed for having dampness included:

- At door in kitchen
- Bedrooms and around windows
- Bedroom Windows
- Black spots windows
- Condensation
- Dining room
- Exterior doors and windows, possible damp from bathroom
- In corner of house where cupboards are
- In the bathroom and one of the bedrooms
- Regular condensation
- Upstairs bathroom and bedrooms
- Upstairs bathroom and front bedroom
- Windows in kitchen front door i. no extractor fan broken

**Glazing**

Householders were asked what type of glazing they had within the home:

<table>
<thead>
<tr>
<th>Type of glazing</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>All single glazed</td>
<td>3</td>
<td>7.5</td>
</tr>
<tr>
<td>Some double glazing</td>
<td>1</td>
<td>2.5</td>
</tr>
<tr>
<td>All double glazing</td>
<td>36</td>
<td>90.0</td>
</tr>
<tr>
<td>Total</td>
<td>40</td>
<td>100.0</td>
</tr>
</tbody>
</table>
**Use of energy efficient light bulbs**

Households were asked if they used energy saving light bulbs:

<table>
<thead>
<tr>
<th>Energy efficient lightbulbs</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>No / None</td>
<td>14</td>
<td>35.0</td>
</tr>
<tr>
<td>Some</td>
<td>12</td>
<td>30.0</td>
</tr>
<tr>
<td>Most</td>
<td>8</td>
<td>20.0</td>
</tr>
<tr>
<td>All</td>
<td>4</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>38</strong></td>
<td><strong>95.0</strong></td>
</tr>
<tr>
<td>Unanswered</td>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

**Health and wellbeing**

Due to the eligibility criteria of the Affordable Warmth Scheme whereby non targeted referrals must have an underlying health condition / be elderly or frail or have young children in the home, the questionnaire included information on health. This was also used for eligibility for the Winter Warmth Packs.

<table>
<thead>
<tr>
<th>Health information</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>17</td>
<td>42.5</td>
</tr>
<tr>
<td>No</td>
<td>31</td>
<td>35.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>77.5</strong></td>
</tr>
<tr>
<td>Unanswered</td>
<td>9</td>
<td>22.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>40</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Asthma was quoted 11 times, stroke / heart conditions were quoted 5 times and COPD was quoted 4 times. Comments were made about other health conditions which included:

- Aneurysm / Hip replacement
- Arthritis
- Asbestosis
- Eczema
- Epilepsy
- High blood pressure / Diabetes type 2
- Osteoarthritis / Lymphedema
- Osteoporosis
- Rheumatoid Arthritis
- Son has pulmonary stenosis caused by CFC syndrome
- Thyroid
- Thyroid ï Arthritis
Referrals Made and Outcomes of Referrals

Energy Efficiency Referrals

*NISEP Funded Referrals*

28 referrals were made to Energy Store’s Thermal Comfort scheme for energy efficiency measures including cavity wall insulation and loft insulation.

Two referrals were made to the SSE Airtricity scheme, Positive Insulation Plus for insulation measures and two for the Energy Store Cashback scheme.

*Outcomes:*

18 householders received loft insulation via Energy Store and two householders received cavity wall insulation.

Energy Store agreed to carry out five invasive cavity wall insulation surveys in properties where the householder felt there may be a problem with the cavity wall insulation.

Of these five properties, three homes had cavity wall insulation which was in good condition. Two of the homes had ineffective cavity wall insulation which was extracted and refilled by Energy Store. See Case Studies on Page 24 for a detailed report on these two properties.

The main reasons as to why some of the other referrals did not receive insulation are as follows:

- Cavity Wall Insulation already installed
- Loft Insulation to Depth
**Boiler Replacement Allowance**

There were 14 referrals made to the NIHE Boiler Replacement Allowance, this is a partially funded scheme funded by the Department for Social Development to incentivise homeowners to upgrade old inefficient boilers.

Out of the 14 referrals for application forms, none of the householders decided to go ahead with this process. The feedback from householders has mainly been that the grant level is not high enough for them to be able to proceed with the application. The grant awarded is up to a maximum of £1,000 (dependant on income), some householders received quotes of £2,000 for a new boiler alone and householders felt they could not proceed faced with the situation where they would have to find the additional money.

**Affordable Warmth Scheme**

Three referrals were made to the Affordable Warmth Scheme. All three had assessments carried out by the Affordable Warmth team and were passed for technical survey to NIHE.

Two of these referrals were cancelled; one was over the £20,000 income threshold and the other was cancelled because the landlord did not give permission for the work to go ahead.

The third has received approval for loft insulation, draught proofing and for a new heating system. This was approved in November 2015 and is still in progress.

**Benefit Entitlement Checks**

A total of 22 referrals were made to North Belfast Advice Partnership (NBAP) for BECs.
North Belfast Advice Partnership carried out 22 benefit checks with two participants receiving additional support with an annual worth of £10,054.00 due to their personal circumstances. The majority of clients lived in private tenancies and working full time, therefore receiving full entitlement to working age tax credits and benefits. In addition to this, many clients were also given information and advice on the new Welfare Reform and how it would affect them, when introduced to Northern Ireland. Clients were additionally provided with holistic advice on other areas including tax, debt and family support. The NBAP worker continues to provide a weekly outreach with Mount Vernon Community House.

**Winter Warmth Packs**

There were 40 Winter Warmth Packs delivered to the MVCDF to distribute; 31 householders received a pack. The nine remaining packs are being given out by the MVCDF in the winter.

**Home Safety Checks:**

A total of 30 Householders agreed to be referred for a Home Safety Check. Eight of these decided not to proceed and cancelled when contacted by BCC. One previously had a check and didn’t need it again.

The remaining 21 all received a Home Safety Check.

10 of these householders received free equipment via this scheme which included:

- The Elderly pack contained a Helping Hand Pack; a Grabber, Long shoehorn and a sock aid. Some also received touch lamps and gang sockets.

- The Young families pack contained a Home Safety Starter pack; cupboard door locks, door stopper, soft cushion corners, plug socket covers, stair gate and a fire guard.
All households were offered a carbon monoxide monitor.

Feedback on the home safety checks was very positive with many commenting that it was a great service to be offered for free.

Additional Advice / Information Given

All 40 householders were given an information pack which included information and advice on energy efficiency and saving money on energy bills. All were also given a temperature card to help them understand the ideal temperatures for different rooms in their home. A thank you note for completing the questionnaire was also included in the pack.

When the questionnaires were completed and all referrals made to the different schemes and referral partners, the householder received a letter from NEA to let them know where they had been signposted to. This was to remind the householders who to expect a call from regarding referrals. This was also a recommendation made following an evaluation of the previous local door to door intervention.
Case Studies – Inspections and Invasive Surveys Carried out by Energy Store

Site Inspection Report

Site Visit

The home was visited on the 26th March 2015 at the request of the residents group and NEA. A detailed “whole home” inspection was carried out, which included an internal and external inspection of all the buildings fabric elements. The semi-detached home visually is fine with what could be construed sound brickwork, roof, windows and general state of repair. The occupants complained of the high cost and level of energy used in an attempt to reach and maintain a reasonable level of thermal comfort. The energy costs were a serious issue for the occupants in the coldest periods. The heating boiler ran constantly and struggled to heat the home effectively. The occupants also complained about the speed at which the home cooled down after the heating was switched off. The survey process highlighted an
issue with the build-up of materials in the guttering for the home. This will create additional rainwater penetration during periods of heavy rain as the overspill will add to the wind driven rain levels. The home occupant has been informed that this needs to be addressed to help reduce the moisture levels for the home. This is most prominent at the back of the home with the weight of materials causing sagging of the PVC guttering. The home was occupied with a family at the time of the inspection visit. The cavity wall insulation materials as viewed by Borescope are sparse and soaking wet. The volume of water penetrating the cavity over a long period of time has created a situation that the fibre insulation materials are coloured red from the dye coming off the bricks. The guttering and the pointing should be reinstated as a matter of urgency. The fibre should be removed and be replaced with bonded bead. There is little to no thermal comfort to be had in this home due to the high levels of heatloss and damp.

**Property Details**

Purpose built semi-detached 3 bedroom home  
Initial Build approximately 1946  
Cavity insulated initially circa 1975 ï 80,  
Cavity fill: front and back walls wet Fibre,  
Cavity 75mm  
Wall area approx. 80m² including approx. 13 m² of glazing  
Roof insulation needs topped up to existing standards

**Internal and external Images of the home**

The following images below taken of the home, both digital and thermal images show the heatloss issues with the home. The thermal images show heatloss in the form of areas of bright Red, Yellows and extremes, White. Externally cold areas should be a Blue colour and the reverse internally where Red is normal and Blue is cold spots. The relevance can be seen against the digital image of the area of the home highlighting points of concern which need investigated. The thermal imaging was conducted with the heating system fully engaged in all rooms for an hour before the images were taken.
External Digital and Thermal Images

Fig 1 The front of the home with the drill holes and identifying brushes in place pre extraction process

Fig 2 The thermal image of the front of the home showing vast areas of heat loss (bright red and yellow colours, extremes are white (windows and doors)
Fig 3 The gable wall of the home again with the drill holes and identifying brushes in place

Fig 4 The thermal image of the gable wall of the home
**Fig 5** View from the other side from Fig 3 above

**Fig 6** The thermal image of the area above ï Fig 5
Fig 7 the back of the home (note guttering issues)

Fig 8 The thermal image of the area above
Internal Images of the Home

Fig 9 Internal wall showing damp areas, the wallpaper spoiled

Fig 10 The thermal image of the above area the Blue colour highlights cold damp areas
Fig 11 Lounge area and the damp spots

Fig 12 The thermal image of the above area
**Fig 13** The bathroom area of the home mould evident, cleaned before visit

**Fig 14** The thermal image of the above area high temperature differences visible
**Internal Cavity Wall Digital images by Borescope**

**Fig 15** The insulation is very poorly installed/non-existent below the living room window at the front

**Fig 16** Sparse wet fibre materials in the front gable wall
Treatment

In line with acceptable standards and as a result of a thermal audit (using a Flir thermal imaging camera), this highlighted areas of concern, detected heat losses through the homes cavity walls directly into the atmosphere. This process was conducted at set times without solar inflection. All the before thermal images were taken with the homes heating fully engaged for at least one hour before the visual survey took place, in order to maximise the fabric losses and capture them on file. The home was further surveyed by Boroscope test holes to ascertain the quality of insulation, which showed issues as per findings in the thermal inspection. Agreed, appropriate remedial insulation repairs (extraction and refill treatments) were completed in line with the latest industry recognised British Board of Agrément, (BBA) standards using Grey ESP bonded beads to correct the energy losses. The home having been treated with the use of material extraction techniques, and refilled with industry standard Grey Bonded insulation bead to provide the home with adequate protection from the local climatic conditions. This treatment was carried out to British Board of Agrément (BBA) standards allowing for a Cavity Insulation Guarantee Agency (CIGA) 25 year guarantee for the remedial treatments.

John Ross MSc
The home was visited on the 26th March 2015 and was inspected as a result of a request made through the residents association and National Energy Action (NEA).

A detailed "whole home" inspection was carried out, which included an internal and external inspection of all the buildings fabric elements. The semi-detached home visually is fine with what could be construed sound brickwork, roof, windows and general state of repair. The survey process highlighted issues of great heatloss evident across the outer walls of the home. The insulation is both sparse and wet. This should be removed and be replaced with bonded bead. The mortar on all of these houses is badly pitted, marked and the pointing should be reinstated as soon as possible. The guttering on this house needs to be replaced or at least cleaned and reinstated. The occupants complained of the high cost and level of energy used in an attempt to reach and maintain a reasonable level of thermal comfort. The energy costs were a serious issue for the occupants in the coldest periods. The heating boiler ran constantly and struggled to heat the home effectively. The occupants also complained about the speed at which the home cooled down after the heating was switched off.
Property Details

Purpose built semi-detached 3 bed room home
Initial Build approximately 1946,
Cavity insulated initially circa 1975 ï 80
Cavity fill: front and back walls wet Fibre,
Cavity 75mm
Wall area approx. 85m² including approx. 16 m² of glazing
Roof insulation needs topped up to existing standards

Internal and external Images of the home

The following images below taken of the home, both digital and thermal show the heat loss issues with the home. The thermal images show heat loss in the form of areas of bright Red, Yellows and extremes, White. Externally cold areas should be a Blue colour (i.e. retaining heat) and the reverse internally where Red is normal and Blue is cold spots. The relevance can be seen against the digital image of the area of the home highlighting points of concern which need investigated. The thermal imaging was conducted with the heating system fully engaged in all rooms for an hour before the images were taken.

The front left side of the home and the gable end in viewing the thermal images shows major areas of concern with huge temperature differences viewed across the fabric.
External Digital and Thermal Images

**Fig 1** The front of the home pre extraction process

**Fig 2** Thermal image front of the home showing vast areas of heat loss (bright red and yellow colours, extremes are white (windows and doors) next door similar
**Fig 3** The gable wall of the home

**Fig 4** The thermal image of the gable wall of the home huge areas of heatloss
Internal Cavity Wall Digital images by Borescope

**Fig 5** clump of wet fibre in the cavity

**Fig 6** A dirty tie iron in front cavity of the home, material removed during treatment
**Fig 7** empty cavity at height at the front of the home

**Fig 8** damp and mould in the front room of the home, wallpaper hanging off the wall
Fig 9 damp wet fibre below the front window area

Fig 10 sparse wet fibre in the front gable wall
Fig 11 sparse wet fibre in the mid gable wall

**Treatment**

In line with acceptable standards and as a result of a thermal audit (using a Flir thermal imaging camera), this highlighted areas of concern, detected heat losses through the homes cavity walls directly into the atmosphere. This process was conducted at set times without solar inflection. All the before thermal images were taken with the homes heating fully engaged for at least one hour before the visual survey took place, in order to maximise the fabric losses and capture them on file. The home was further surveyed by 9 Boroscope test holes to ascertain the quality of insulation, which showed issues as per findings in the thermal inspection. Agreed, appropriate remedial insulation repairs (extraction and refill treatments) were completed in line with the latest industry recognised British Board of Agrement, (BBA) standards using Grey ESP bonded beads to correct the energy losses. The home having been treated with the use of material extraction techniques, and refilled with industry standard Grey Bonded insulation bead to provide the home with adequate protection from the local climatic conditions. This treatment was carried out to British Board of Agrement (BBA) standards allowing for a Cavity Insulation Guarantee Agency (CIGA) 25 year guarantee for the remedial treatments.

John Ross MSc
Testimonial

Personal Statement of a homeowner in Mount Vernon:

I wish to write this personal statement on behalf of my husband myself and my 3 children. I have lived in Mount Vernon for over 20 years now and in the last few years have been an absolute nightmare in terms of having damp issues.

I am a 40 year old who has been caring for my husband for 20 years and we both have health issues. Husband has epilepsy and myself having had a minor stroke. House has been cold and there have been other problems associated with this issue, to name but a few. Son with eczema’s condition was so bad that he had to be treated in the City Hospital last year for 6 months and attended three times a week. Now healing better thanks to their treatment.

The problem I had in my house related to having damp walls and not knowing what the problem was until what I would say is an absolute godsend. I am eternally grateful to Energy Store and NEA staff who have assisted me and my family. I had wet cavity wall insulation which is a direct result of our damp issues and had a check to see how cold the house was.

My house was also very dusty and we never knew were the dust came from and this could have been made worse. And we knew that there were holes in the walls as the dust came through the house when the work was done. Admittedly, we also accumulated a debt to Phoenix gas in which I had to install a pre-payment meter as the bills arose so highly, thankfully this has now been paid off.

Now the heat is staying in the house more, we notice a difference in condensation issues as well.

We know that from talking to other neighbours that they are having similar issues.

We are eternally grateful to the pilot scheme as without this we would have suffered more issues including stress, health and other worries. Once again thank you for the assistance.
Conclusions

Local Based Approach

The Mount Vernon area, being a close knit community, was an ideal location and neighbourhood to undertake a door to door project such as this. The community infrastructure was also ideal in allowing for community champions to lead the way to contact householders and undertake questionnaires with those in the community. The Mount Vernon Community Development Forum was already in existence and had experience of carrying out surveys/questionnaires and so this element of training was not needed for the volunteers. It was agreed early on in the project and has been seen throughout the process that by using local volunteers who are also likely to be residents of the targeted area that there tends to be a higher level of engagement from the community.

The door to door intervention meant capturing information in one area and is an approach used all over the UK via Warm Zones. It is already established as a successful tool to improve the energy efficiency of housing stock in specific areas. It also creates a sense in the community of fairness i.e. that everyone can get something and not just those who have access to advice / information or knowledge to obtain these grants in some other way.

For more information on Warm Zones please see:


Tenure

It was acknowledged that a project focusing on homeowners and private renters would be welcomed and appreciated in the area as a lot of home improvement schemes are carried out by the NIHE which are only for NIHE tenants. There is an attitude (not unique to Mount Vernon) that homeowners do not get anything for free and so the idea of grant funded energy efficiency measures was something that
appealed to those involved in setting up and rolling out the project and was evident from feedback from the householders involved.

**Outcome of Referrals**

Despite being hopeful that most of the 114 homeowners / private renters would take part, it did prove difficult to get everyone to agree to complete the questionnaire. Some householders asked for it to be left and said they would return it, others did not want to take part and in some instances it was difficult to get the householder in the home when the volunteers were calling at the door.

The breakdown of responses received is as follows:

- 40 questionnaires completed
- 9 voids in total
- 20 refusals in total
- 45 - no answer or survey left and not returned

**Total:** 114

There were 40 questionnaires completed. This represents 35% of the homes that were targeted.

Feedback from those who did not want to complete the questionnaire included:

- Not wanting to take the time to complete the questionnaire
- Householders feeling they already had all the energy efficiency work completed.

More than half of the questionnaires indicated that the householders did need energy efficiency work completed in their home. As can be seen by the results 22 households received insulation measures.
14 households qualified for the boiler replacement allowance however due to the additional contribution required from the householder none of these went forward to application stage. One householder has been approved for energy efficiency improvements via the Affordable Warmth Scheme which is a fully funded programme, this work is in course of completion.

**Partnership Working**

Working closely with all the partners brought about additional benefits to the project which meant that as well tackling fuel poverty other issues such as social isolation, benefit up take and provision of advice on home safety were also addressed.

The CLARE project also enabled us to connect well with people in homes where vulnerabilities existed. Two householders who were engaged in this project were also part of CLARE and this partnership demonstrated the intensive handholding that some vulnerable householders needed when undertaking this type of area based work. Linking with various existing partnerships in a community is a really important aspect of this type of project work and key to good communication, not only for project staff but also for householders.

**Training**

There are many positive outcomes from the project including benefits to the local volunteers who received awareness training to enhance their knowledge around energy efficiency and fuel poverty. Volunteers also attended the NEA / City and Guilds Energy Awareness training and two went on to achieve the City and Guilds qualification.

**Grant Funding**

NISEP grants were vital in ensuring the success of this project. Most householders who completed the questionnaire were on a low income, below £20,000 but Mount Vernon is not part of an Affordable Warmth Scheme targeted area. However three
referrals were made to the Affordable Warmth Scheme on the basis of their health circumstances.

One important policy issue in regards to current Fuel Poverty grant schemes is that there is insufficient funding available to help householders replace old inefficient boilers. The current Boiler Replacement Allowance does not cater for lower income householders as a significant proportion of the cost needs to be met by the householder.
Recommendations

- Local door to door action based projects are essential to tackling fuel poverty levels in Northern Ireland. The model of Warm Zones could be considered in Northern Ireland to help tackle areas where there are highest levels of fuel poverty.

- That future projects work in partnership with existing community infrastructures to ensure success in accessing local households. A local intervention should ensure those working with the community group include members of that community who should receive appropriate training and development to help in the success and longevity of the project.

- The Boiler Replacement allowance does not effectively address fuel poverty in areas of social and economic need. Despite being eligible for the scheme householders in the Mount Vernon area could not find the additional capital needed for a new boiler.

- With the high proportion of old oil fired central heating systems in the Mount Vernon area and no suitable grant programme to help householders in need to replace these systems, NEA calls for more funding to be made available for low income households to change to more efficient boilers.

- As two of the five homes surveyed by Energy Store, needed cavity wall insulation extraction and refill, NEA recommends that funding is made available for further invasive surveys to be carried out in the area to assess the incidence of ineffective cavity wall insulation.
Appendices

Poster Used to Advertise the Project

Copy of Template Letter – Pre Questionnaire

Copy of Information Pack Contents

Copy of Thank you Note Included on the Information Pack

Copy of Template Letter – Post Questionnaire

Customer Journey
The Mount Vernon Community Development Forum is working in partnership with National Energy Action, the fuel poverty charity, Belfast City Council and North Belfast Advice Partnership.

If you own your own home or rent privately in the Mount Vernon area, you are invited to take part in a doorstep questionnaire. It’s simple, easy to complete and takes about 10 minutes.

This questionnaire will enable us to see if you are eligible for any energy efficiency grants or schemes, e.g. for loft insulation or for improvements to your heating system, or for a Home Safety Check, a Winter Warmth Pack or a Benefit Entitlement Check.

If you require any further information or would like to discuss the project please contact the Mount Vernon Community Development Forum on 028 9077 5307.
<Insert Date>

Warmth in Mount Vernon

Dear Resident / Householder,

As part of the Warmth in Mount Vernon Project, the Mount Vernon Community Development Forum is working in partnership with National Energy Action, the fuel poverty charity, Belfast City Council and North Belfast Advice Partnership. We have arranged for a trained local representative to call at your home within the next 4 weeks to tell you more about the project and conduct a short questionnaire with you. This questionnaire will enable us to see if you are eligible for any energy efficiency grants or schemes, e.g. for loft insulation or for improvements to your heating system, or for a Home Safety Check, a Winter Warmth Pack or a Benefit Entitlement Check.

We are initially doing a small survey in 100 privately owned or privately rented homes in the Mount Vernon area. If you require any further information or would like to discuss the project please contact the Mount Vernon Community Development Forum on 028 9077 5307.

Yours faithfully,
Mount Vernon Community Development Forum
Householder Information Pack Contents

Energy Information Pack

This Energy Information Pack Contains the following leaflets:

- Thank-you note for completing the questionnaire
- Temperature Card
- Dealing with Condensation Leaflet
- Energy Efficiency Tips Leaflets X 2
- 10 Energy Saving Myths Leaflet
- Switching Energy Suppliers Leaflet
Mount Vernon Thank you Note – Included in the Householder Information Pack

Warmth in
Mount Vernon

Many thanks for completing
the Questionnaire

The information gathered will be sent to NEA who will assess what energy efficiency measures you may be eligible for.

If you are eligible for any energy efficiency grants or schemes, NEA will make referrals on your behalf to appropriate schemes, who will then be in touch with you directly.

If you have requested a benefit entitlement check or advice on money management or debt, NEA will pass your contact details on to North Belfast Advice Partnership, who will be in touch with you to follow up.

If you have requested a home safety check or a winter warmth pack your details will be passed on to Belfast City Council who will be in touch with you to follow up.

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT THE MOUNT VERNON COMMUNITY DEVELOPMENT FORUM ON 028 9077 5307
Mount Vernon Post Questionnaire Template Letter

Mount Vernon Community Development Forum
166-180 Mount Vernon Park
Belfast
BT15 4BJ

<Insert Date>

«Title» «First_Name» «Surname»
«Address_1»
«Address_2_»
«Postcode_»

Warmth in Mount Vernon

Dear «Title» «Surname»,

Thank you for taking the time to complete the *Warmth in Mount Vernon* Questionnaire. The information has been passed to National Energy Action (NEA), the fuel poverty charity, to assess what you may be eligible for in regards to energy efficiency measures, a home safety check, a benefit entitlement check, or a winter warmth pack.

I am pleased to let you know that NEA has now made referrals for you for the following schemes:

(Deleted as appropriate)

Loft Insulation via Energy Store
Cavity Wall Insulation via Energy Store
Home Safety Check via Belfast City Council
Benefit Entitlement Check and / or Money Advice via North Belfast Advice Partnership
Boiler Replacement Allowance via NIHE *
Affordable Warmth Scheme via Belfast City Council
Winter Warmth Pack via MVCDF (funded by BCC)

You may have already heard from some of these partners but if not, you should hear within a few weeks. Contact details have been enclosed with this letter if you want to get in touch with any of these partners directly.

If you require any further information or would like to discuss any of these referrals please contact Angela Gracey, Project Coordinator at NEA on 028 9023 9909.

Yours faithfully,

Mount Vernon Community Development Forum

* Please note that the boiler replacement allowance is a partially funded scheme and that the first step is to receive an application form from the NIHE. A leaflet has been enclosed which explains this grant and the process you need to follow if you wish to apply.
NEA with Mount Vernon Community Development Forum (MVCDF) identify x houses for the WMV Project

MVCDF sends WMV information letter to selected households

Households receive letter informing them about the WMV Project

MVCDF identify enablers who will complete a Questionnaire and Consent Form with the householders

ENEA provide training for the enablers

Households visited by the enablers and forms completed

Enablers visit each house and complete the Questionnaire and Consent Form with the householder
NEA coordinates the Project with MVCDF and provides progress reports to PHA

Forms brought back each day to MVCDF and held securely

Information uploaded to SSPS.

Questionnaires and data collected by NEA
Referrals made by NEA for EE and HSC

NBAP Providing Benefit Entitlement Check (BEC)

Referral for BEC made directly to NBAP by MVCDF (CC NEA)

Energy Efficiency Grants (As outlined on the Grants information sheet)

Householder receives BEC / Money Advice or Debt advice

Householder receives visit from Scheme Manager. Eligibility verified / technical survey completed

EE measurers installed as appropriate for Householder by the Contractor

Letter sent to householder detailing referrals made with contact details of scheme managers.

Information used by NEA for records and reporting to PHA

Householder receives HSC

Home Safety Checks BCC

Information uploaded to SSPS. Referral for BEC made directly to NBAP by MVCDF (CC NEA)

Letter sent to householder detailing referrals made with contact details of scheme managers.

Information used by NEA for records and reporting to PHA

NEA coordinates the Project with MVCDF and provides progress reports to PHA