

Case Study 26

Warm Zone

UK



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Energy behavioral changes



Changing Behaviour



Work package 2
Development of the conceptual model: Analysis of success factors,
underlying models and methods in target group interaction

Case Study 26:

The Warm Zone Project in Kirklees, UK

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Summary of the case

The project Warm Zone is currently being implemented in Kirklees, a local authority district in the north-east of England. Warm Zone is large and ambitious in its approach and scope: Kirklees Council and Scottish Power, a large energy company – co-funded the scheme, combining public and industry funding to an impressive £21m. This money is used to provide free cavity and loft insulation for all houses in Kirklees irrespective of the residents' or tenants' socioeconomic status. In the framework of this project each house in Kirklees is visited individually and residents are informed about options to lower energy consumption, renewable energy production, and water conservation measures. They are offered referrals for benefits and debt advice, home fire safety checks and support for long-term carers. Four energy efficient light bulbs and a Carbon Monoxide detector are also offered free to each household. Once people sign up to the scheme a survey is carried out and if the property is suitable, cavity wall and loft insulation is installed free of charge. Where properties cannot be insulated using these measures, householders are informed about other local schemes such as RE-Charge, which offers an interest free loan to install renewable energy technologies

The project runs from 2007 – 2010 but already shows impressive results at the time of writing (mid-2009): around 70% of all houses have already been visited. Of those surveyed by Warm Zone approximately 25% had already been insulated prior to Warm Zone and some would not profit from the insulations works offered, but for many the insulation works progressed well.

The project compels through its clear goal setting and careful organisation across a large number of stakeholders and active participants involved (e.g. several departments of the local authority, public interest groups, and businesses). Furthermore, a well-targeted communication strategy which comprises general campaigns and personal door-to-door visits allows clear information and invitations to participate for all citizens. The many benefits of decent insulation (e.g. better comfort and health, through having a warmer home and decreased energy bills) were effectively communicated. Finally, the programme caught a lot of attention, not only because of the accomplished energy savings and hence emission reduction, but also because of its clear focus, broad scope and positive effects for local citizens and economy.

Step 1: Context of DSM programme

National context in general

Kirklees Council is located in the north of England, which forms part of the United Kingdom. In 2008 the UK was listed sixth in the economic ranking of countries by the International Monetary Fund with a GDP of app. US\$ 2.7 billion (WMF, 2009). The population numbers over 60 million people with a slight upward trend.

The claim has been made that the UK has been proactive and outspoken about the issue of climate change (Mitchell, 2008). Over recent years, the government has increased its focus on energy use and environmental protection issues. In line with this, the government has produced a range of policies to stimulate the development of sustainable energy technologies (Mitchell & Woodman, 2004).

The government has promoted the 2006 UK Climate Change Programme as the key strategy for its work on tackling climate change; it sets out the policies and measures which the UK is using to cut its emissions of greenhouse gases (DEFRA, 2006). Overall, the UK government has agreed with other Member States to an EU-wide target of 20 per cent renewable energy by 2020 - including a binding 10 per cent target for the transport sector. Furthermore, the UK has proposed setting binding targets for reducing carbon dioxide emissions through the Climate Change Bill 2007. These include:

- An 80% cut in carbon dioxide emissions from 1990 levels by 2050 (26-32% cut by 2020).
- Five-year carbon budgets will be established from 2008 to 2023, this will set binding limits on carbon dioxide emissions ensuring every year's emissions count.

The UK plan to cut down on carbon dioxide is strongly related to its production (and consumption) of energy. The government has set out the UK's Energy Efficiency Action Plan 2007, which aims to bring together current and planned policies and measures to improve energy efficiency and meet the energy saving targets.

For many years UK domestic energy demand has been rising on average by 1% a year. The government has offered a range of demand-side interventions to address this, largely through the Energy Savings Trust (EST) and their network of Energy Efficiency Advice Centres. These centres have provided domestic energy efficiency advice, information on grants and subsidies, approved suppliers and installers etc. They have also worked closely with local authorities and energy suppliers in meeting their Energy Efficiency Commitment (EEC), now Carbon Emissions Reduction Target and helping develop Affordable Warmth Strategies.

There is awareness that investing in energy efficiency and sustainability now is also economically smart. Arguments for the above mentioned programmes include a promise for creation of work and conceive it paramount to act now to counter climate change, since no action will prove more expensive in the long run. In other words, economic regression and the urgency to counteract climate change have been understood as opening a window of opportunity (LGA, 2008).

At the same time, it is perceived necessary to make changes affordable. The country at large suffers from high unemployment (7%) and economic downturn, especially since the onset of the economic crisis. Household expenses have risen dramatically over the last 3 years, while liquidity has decreased. Energy prices have increased tremendously (by 250% in the time span 2003-2009). Especially for poorer households these figures pose a threat. The number of

households living in fuel poverty is estimated to be between 3-5 million (17-28% of all households) or possibly higher¹.

The following chart shows the dramatic drop in the amount of money people have at their disposal in 2006. The situation seems to ease off only slowly with an upward trend from 2006 to 2007:

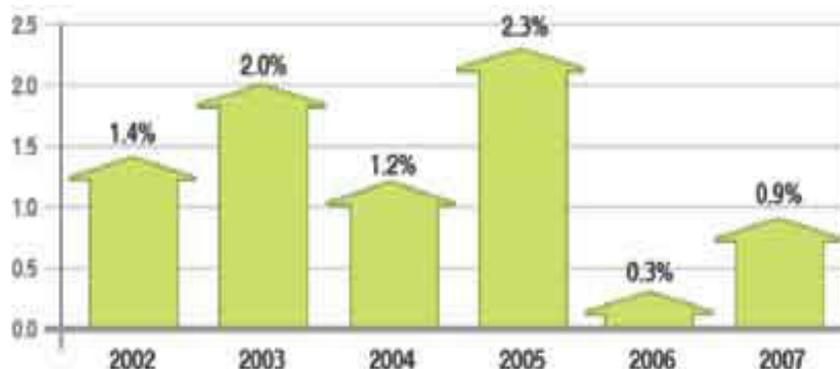


Figure 1: Household disposable income annual change (real terms) in %
(source: LGA, 2008)

Local context

The Warm Zone project has been designed for and is carried out in Kirklees, a local authority district in the north-east of England. Debates concerning climate change, carbon emissions, energy efficiency and fuel poverty are led on a local level here with similar or even higher intensity as nation-wide. The local authority, Kirklees Council, has long been active at these social, environmental and economic crossroads, despite political changes and different parties ruling the Cabinet over the years. In top-down projects initiated or supported by the council, sustainability and demand-side management have played a role in previous projects, for example in the use of wind or solar power in public buildings and education about energy behaviour at schools. The focus on comfort, warmth and health in the private housing sector accompanied by clear energy savings was sparked in recent years due to the Government's drive to reduce the number of UK households in fuel poverty.

Yorkshire Energy Services (formerly Kirklees Energy Services) was appointed as the managing agent for the implementation of Warm Zone on behalf of Kirklees Council. It also acts as an energy advice centre appointed by the government for West and South Yorkshire (9 local authorities).

Specific context of the project

The Council leads the Affordable Warmth Strategy which was initiated in April 2006 and fed into the development of Kirklees Warm Zone with the support of over 40 public organisations, e.g. several governmental departments, the National Health Service, voluntary and community groups, but also private parties². It was estimated that between 35,000 – 45,000 households are living in fuel poverty in Kirklees, hence creating a need for action. The energy efficiency of existing housing stock in Kirklees was deemed to be low, while tenants

¹ Fuel poverty is defined as having to spend more than 10% of the household income on energy bills (heating, hot water, lighting and cooking). Cold damp housing is a major cause of winter illness and deaths (due to respiratory and cardiovascular disease), most frequently occurring with old people or very young children.

² For a complete list, see <http://www.kirklees.gov.uk/community/environment/energyconservation/AWStrategyLeaflet.pdf>

and residents were hardly aware of or confused by the variety of available options or funding schemes to decrease their energy consumption.

Leading up to the formation of Warm Zone, several schemes were offering free home insulation or heating grants, but these were criteria based, focusing on vulnerable households, e.g. elderly citizens and people on state benefits. For instance, the KEEP Warm project offered free house insulation to low income households whose residents are over 60 years of age. The funding of this project has been incorporated into Warm Zone, as this has the same intervention planned, but for the much larger target group of all households within Kirklees – independent of age and income of their members. Although uptake of these schemes was good, people found all the different funding streams and criteria confusing. Kirklees Warm Zone offers local residents an easy, criteria-free approach which removes many of the barriers preventing people from insulating their homes.

Step 2: Focus of DSM programme

General issues

At the time of writing this case study, Kirklees Warm Zone (WZ) is still underway and over 130 000 households have already been visited (status May 2009). The project, which started in February 2007, will run until June 2010. By the end of 2008 about half of all households within Kirklees Council (KC) had been visited.

The total budget for the insulation programme is £21m, of which £9m comes from Kirklees Council and up to £11m from Scottish Power (an energy company active in energy generation and distribution in the U.K.) – through CERT funding³.

The ‘technology’ employed for Warm Zone consists of mineral wool cavity wall and loft insulation, which is currently available on the general market. Furthermore, the focus of the project is not a long-term behavioural change, but a one time positive decision to allow work on the building one lives in to insulate walls and/or roof. The fact that this service is offered for free and requires hardly any effort to organise the work might pose the biggest incentive. Unusual and certainly highly ambitious, however, is the size of the target group which includes all households of Kirklees Council. Providing such widespread support and service backed up by sufficient time, staff and funding is certainly unprecedented in the U.K. and possibly even in the whole of Europe.

Initiator and partners

Initiator of the Warm Zone project was Kirklees Council together with a number of other public and private organisations. The reputation of Kirklees Council is strong and positive in the field of sustainability, emission reduction and fuel poverty alleviation. The Council joined the UK emissions trading scheme already in 2002 and after successfully focusing on demand-side management and the use of renewable energy for governmental and public buildings first and then shifted attention to the private sector. Warm Zone is the biggest project in that sequence of events. The two main financial supporters of the Warm Zone project are Kirklees Council and Scottish Power. The former provided a total amount of £9 million and the latter £11 million. It is supported and carried out by the following partners:

- **Scottish Power** is a large energy company engaged in energy generation, supply, transmission and distribution in the U.K. that supplied a large amount of funding based on EEC/CERT funds.
- **Yorkshire Energy Services** functions as intermediary and manages the Kirklees Warm Zone project on behalf of Kirklees Council and since summer 2008 also the new Energy Saving Trust Advice Centre for the whole of South and West Yorkshire.
- **Miller Pattison** is the insulation contractor.
- **National Grid** is a co-funder and supplied resources to develop the business case.
- **Citizens Advice Bureau, Kirklees Benefits Advice Service, Kirklees Revenue and Benefits** and **The Pension Service** offer free and confidential benefit and debt advice.
- **West Yorkshire Fire & Rescue Service** offers fire safety checks, including the fitting of smoke alarms.
- **Yorkshire Water** provides water conservation advice.
- **Carers Gateway** offer support, information and advice for people who care long-term for friends and family.
- **West Yorkshire Regional Housing Board** supports funding of heating grants.

³ CERT = Carbon Emission Reduction Target of the U.K.

- **Central Government** supplies funding through a national heating grant scheme.
- **Scottish Power Energy Trust** and **British Gas Energy Trust** helped fund benefits advisers employed by the Citizens Advice Bureau

The list of associated partners shows that apart from the project focus on home insulation, the personal contact with Kirklees' citizens within the framework of Warm Zone is used to provide a range of information and services. One declared goal is to raise awareness for several government and council support programmes and services.

Problem definition

The project tackles a variety of issues, which might be one reason for its broad and cross-party political support. The main problem is the *high energy consumption of private households* which is largely caused by the old, badly insulated building stock in Kirklees. This is clearly connected to the problem of high CO₂ emissions, in which Kirklees Council has invested heavily to reduce since 2002. Other (connected social and health) issues that receive attention in Warm Zone are fuel poverty, unemployment, reduction of cold weather related deaths and carbon monoxide poisoning.

Goals and objectives

The main concern is the installation of cavity wall and loft insulation of privately owned buildings in order to lower energy consumption of households, reduce the number of people in fuel poverty and lower CO₂ emissions for the Kirklees district.

In 2007 a number of objectives were laid out by the Affordable Warmth Strategy Group, which includes private and public interest groups and governmental bodies⁴. The access to all households enabled in the framework of Warm Zone is used to help meet these objectives, including the distribution of free carbon monoxide detectors (there had been several cases of CO poisoning reported in the past). People are to be made aware of their energy consumption and possibilities to lower it, frequently accompanied by improvement of comfort and health. Several other services are offered or informed about, for example fire safety checks, water conservation advice, financial benefit and funding schemes, also for private renewable energy options. Additionally, the local economy was to be stimulated with the funding available by involving a local subcontractor to do the installation works and employ a team of people to take care of the management, communication and successful implementation of the project. The complete list of projected outcomes reads as follows:

- To have visited all 171,000 homes
- To have assessed 137,600 homes
- To have installed insulation measures of 53,000 lofts and 20,000 cavity walls
- To have created over 150 jobs
- To have saved householders money on their fuel bills, over; £10,000,000 per year by 2010 and year after year after that.
- Carbon savings of 38,000- 50,000 tonnes per year are predicted once the programme is complete.

All these objectives were openly discussed and clearly formulated. In order to achieve a high response and success rate strategies were developed to raise high awareness of the project, to

⁴ Organisations that helped to develop strategies included several council departments, for example the Environment Unit or the Economic Development Service, and a large number of public interest groups, such as tenants and housing associations and statutory organisations such as the Department of Works and Pensions and the National Health Service (NHS). Full list available on the Affordable Warmth Strategy at <http://www.kirklees.gov.uk/community/environment/energyconservation/affordwarmth.shtml>

get in touch with citizens personally and to create trust and a sense of reliability. These strategies are discussed in detail in the section concerning project design of this document.

The targets and target group

The target group comprises all citizens living in Kirklees Council and herein lays the true ambition of the project. In the area of Kirklees there are more than 400 000 people living in about 160 000 households. The age distribution is almost the same as for the whole of England, with three peaks, in the age groups 10-14, 30-34 and 50-54, and an increase of life expectancy over the last decades. Over 90% of the Kirklees population was born in England, and about the same percentage is white. The other larger ethnic groups represented with 5-10% are Indian and Pakistani but many other ethnic minorities from all over the world are also living in Kirklees. About one third of all households is a single household, a quarter is shared by couples (married or cohabiting) with children and almost 7% consist of a single parent. The remaining quarter of Kirklees households are shared by couples without children, or with older, non-dependent (already working) children, or by a group of people, for example students. In short, target group is very heterogeneous with respect to age and socio-economic, ethnic, or religious background, but includes a majority of white, British citizens who live alone or in couples with children. The average household consists of 2.5 people.

About 70% of all living spaces in Kirklees are occupied by their owners. Less than 20% are rented from the local authority, less than 10% are rented privately, and the remaining are rented from housing associations, employers, family members or other. Housing characteristics again vary greatly, the largest share (~30%) is semi-detached, another 20% are detached and only a small proportion consists of multi-apartment buildings. The other half of the housing stock consists of multi-apartment buildings. The average household has about 5.5 rooms available.

Step 3: Design of programme

What knowledge and ideas informed the design of the programme?

In the published documents concerning Warm Zone and the interviews held with the project manager and two other staff members of the Environment Unit no references were made to underlying theories or theoretical research. When the Affordable Warmth Strategy – the underlying policy programme which amongst other influenced and supports Warm Zone – was designed 40 local organisations and members of the public were included in the process of development. The Warm Zone project design is hence based on practical experiences, results from environmental political targets, and follows from earlier projects and the many discussions surrounding those.

Kirklees committed itself to lower CO₂ emissions in 1992 by lowering consumption and supporting the introduction of renewable energy options. It was the first local authority that joined the governmental emission trading scheme in 2002 and has succeeded in energy related environmental, health, safety, and employment improvements and emission reduction of more than a third since 1992. Several projects concerned with emission reduction targeted at public buildings have been successful⁵ and in the beginning of this century the focus came on the private building sector. A project was set out targeting elderly citizens who faced high energy bills but would have difficulties affording constructional changes. The idea was born to provide an (unusual and unprecedented) service by lowering the organisational and financial threshold significantly and helped setting Warm Zone on track.

Research conducted on target group

The target group is as diverse as in many English, middle-sized cities. Demographics and other general information of citizens (e.g. age, socio-economic and ethnic background, housing situation, etc.) were known, for example based on Census questionnaires. There were no other methods used in order to find out more about the target group and its interest in participating. Based on literature and previous projects the notion had emerged that the main barrier that keeps people from investing in energy efficiency of their homes across all societal strata is a financial and organisational one. Hence, much effort was put into being able to offer all Warm Zone services for free and effortless.

Furthermore, it was known before hand that in some, often older houses, within the project termed ‘hard-to-treat homes’ no insulation can be implemented. Nevertheless, residents of these houses are not excluded from the target group, as they can still receive information on other funding schemes or general environmental advice. Here free changes to the heating system can help to decrease energy consumption. Owners of such houses are also made aware of other (financial) means to install different energy efficiency measures. In other houses it is difficult to get in touch with tenants because they do not open doors to strangers under no circumstances. These households are regarded as ‘vulnerable’ and special effort is made to still get access and get in touch to offer free improvements. For example, contact via a familiar third party can be established or a password used to ensure access and trust.

⁵ Examples are ‘School Energy’ and the ‘Spenn Valley Wind Turbine’ projects. For more information, please see <http://www.kirklees.gov.uk/community/environment/renewable/renewable-projects.shtml>

What barriers, motives and capacities did the programme aim to target?

The Warm Zone programme tries to circumvent many, or even most thinkable barriers to change and decision making by offering very citizen-friendly services. The effort to take measures is reduced to a minimum by coming to people's homes, talking to them in person, explaining everything in detail and giving them time to come to a decision. Therefore, people themselves are not required to engage into any laborious or complex organisational activity. They can trust that Warm Zone service workers will eventually come by their house.

The target action cannot necessarily be considered a longer-lasting behavioural change (i.e. curtailment behaviour), but rather a one-time, or one-shot decision action (i.e. investment behaviour). People are visited at home by an official representative for the Warm Zone project and informed about and offered the possibility of free cavity wall and loft insulation. Additionally they are made aware of energy consumption and which behaviours and further actions they could take (and how these could be funded or financially supported) to lower their consumption or CO₂ emissions. The main focus, however, is the insulation of buildings and to succeed in convincing the owner of agreeing to this service. Therefore, the long-lasting change is of constructional nature and has long-lasting effect on people's lives and energy consumption patterns. Each year after the renovation people's homes will feel warmer than before and energy will be saved.

Another practicality is of course finances, which are also fully covered by Warm Zone. Additionally, it is taken care of allowing people to give feedback and file complaints to ensure that the project can be improved over time based on feedback by the target group. It is expected that the changes to people's homes that help to improve insulation, decrease energy consumption, and lower energy bills also has significant impact on people's comfort, health and financial standing (especially in case of fuel poverty). The whole programme design hence rests on abolishing barriers, whether they are practical, organisational, financial, or of a knowledge type and aims at general, broad improvement of people's lives, but also the impact on the environment it has. All are taken care of within the framework of Warm Zone.

The intervention methods/instruments and activities used

On the one hand is the Warm Zone project a general, 'one-size-fits-all' approach on the macro-level: over 170 000 households are visited and the aim is to retro-fit as many as possible with loft or cavity wall insulation. Also, free carbon monoxide detectors, low energy light bulbs, fire safety and water conservation advice is offered. The approach is general, as it applies the same procedure to the whole of Kirklees, to every household. Kirklees Council benefits locally and nationally from an environmentally concerned and engaged image. Citizens trust the Council as a service provider who is concerned with quality and safety. In the beginning of the project awareness has been raised by media coverage and poster or billboard advertisement. There has also been information over local broadcasting stations. When the project moves from ward to ward announcements are made in the local press and community 'launch' events take place to raise awareness to residents that Warm Zone is coming to their area. Households receive a mail shot to give them further information about the scheme and inform them that a Warm Zone representative will shortly visit them.

Warm Zone a highly personalised approach on the micro-level by sending service workers personally to people's homes to inform them about the scheme, answer questions and help householders to complete a basic home assessment form. Questions and concerns can be answered in detail and tailored to people's background knowledge and understanding. Even those households who live in hard to treat homes, or have well insulated houses are still given advice, either on how other services and programmes could be of interest to them, or how advanced energy efficiency measures and renewable options could be considered, respectively. In other words, the Warm Zone framework allows a trustworthy and open

communication with citizens to increase knowledge of EE measures and to deliver tailored advice. Of course the contact to households is established whenever Warm Zone has arrived in the district. It is not taken into account whether people are currently concerned with fabric changes of their house. Cavity wall and loft insulation do, however, not require much preparation of the house and do not cause noise, dust or other construction annoyances over a long period of time.

The biggest incentive of course is the free availability of all services Warm Zone offers. Equipment and installation are also taken care of. If vulnerable households require help to empty space required for the works on their house, they can indicate so in the personal talk and are supported in whichever way necessary and possible.

The Warm Zone initiative is based on Kirklees' political environmental targets and strategies and the acknowledgement of its old and energy inefficient building stock. Thus, the target group led to the establishment of the programme and enough funding allowed including the whole group. The political work had focused on energy efficiency and lower emissions for over a decade and Kirklees was already known for its environmental ambitions and successes at local and national level. Warm Zone can be viewed as the biggest peak in an upward successful trend. It brought together a large group of stakeholders, from several governmental departments, over public interest groups, funding bodies and service providers to contractual workers. The political will and financial effort was combined with the extensive experience of programme managers at Kirklees Council and led to the creating and support for such an extraordinary and intensively financed programme. The contractual work on buildings was then transferred to one specific local company and project management to Yorkshire Energy Services, a not-for-profit organisation.

The awareness created by Warm Zone is not only a means to lower people's energy consumption by increasing energy efficiency of their homes. It is also used to inform them generally about comfort and safety with a clear environmental concern (e.g. water conservation) and also to increase knowledge of behaviour that keeps consumption low. Long-term behavioural changes are, however, not the focus of this programme which rather aims at a one-shot decision-making behaviour and tries to convince by good service offered for free.

Nevertheless, it is planned to add two questions to the customer satisfaction questionnaire which goes out to every household that has completed a Warm Zone assessment form. These questions will address whether any other changes have been done to the house or in the lifestyle of its inhabitants in the context of or the aftermaths of the contact with Warm Zone. These questions could look similar to the following (Sarah Spiliotis, Environment Officer, Kirklees Council Environment Unit, personal communication):

- As a result of the contact you've had with Kirklees Warm Zone, have you made any other changes in your home to reduce the amount of energy you use?
- Has your encounter with Kirklees Warm Zone encouraged you to do more of: (list of greener behaviours)

Finally, Warm Zone helped creating jobs, as Kirklees Energy Services and the local insulation contractor both had to stock up staff to meet demand. These and other effects of Warm Zone on the local economy are discussed under 'Step 5: Outcome of process' in more detail.

Participation

The target group did not directly participate in the design of the Warm Zone programme, but tenants, community and voluntary groups were consulted through the development of the Affordable Warmth Strategy. Design and implementation of the programme were solely constructed and put into practice by governmental, public and private interest groups.

Strategies to inform and engage with the target group were in the beginning following mass communication of intention and set-up of the programme and allowed people (as the Council offers always) to ask question or file comments via a service hotline and online form. Thereby, all people living in Kirklees do not only receive information on Warm Zone, but also on a wide array of public support schemes and service departments. Additionally, they get the chance to learn about fire safety and can benefit from the installation of free carbon monoxide detectors.

Kirklees Council succeeded to assemble a range of groups with various aims and interests in the organisation and realisation of the Warm Zone project (see for a complete list section 'Initiators and partners'). This meant, on the one hand, that a strong vision and message was needed to combine everyone's objectives under a common goal and to communicate a coherent message to citizens. On the other hand, citizens now benefit from benefits at least as numerous as the organisational groups involved in Warm Zone.

Communication

The communication plan foresaw activities on various levels: District wide across Kirklees; local, for each ward; and individual, for each household. Its design included the logo (resembling the sun, or a hot ball), a slogan ("Bringing warmer homes to Kirklees") and an image people can relate to (a red glove). The level of promotion was new to this kind of scheme. It comprised marketing on billboards, bus shelters, roundabout signs, bus advertising, local press and radio advertising and a number of articles have been included in the council's Kirklees Together magazine, which is distributed to all Kirklees households on a regular basis. Frontline council services and registered community and voluntary groups also engage in the marketing campaign and help raise awareness. Finally, there is a lot of information on the internet, e.g. on the Warm Zone website, on the site of Kirklees Council and Yorkshire Energy Services. All these pages are written in easy and accessible English, but are also available in the languages of the largest minorities (Gujarati, Punjabi and Urdu) and also include images of the works possible and the Warm zone logo to allow easy recognition. The information is presented in a neutral and trustworthy way. Kirklees Council strives for trust in its residents and takes care of its communication.

As Warm Zone moves from ward to ward, the residents of each are first informed by leaflets that 'Warm Zone is coming'. Then there are door-to-door visits by a Warm Zone representative (who carries a certified badge) who informs each household individually about all the services included in Warm Zone and the assessment form one needs to fill out in order to participate. Even those households where contact with officials can be difficult are included by making specific appointments over the phone, or taking another trusted contact person along. One advantage of including a range of participants and serving several interests is that the message brought across is not 'too green'. The name of the initiative itself shows that the emphasis (of communication) is on warmth, comfort and saving money and not on emission reduction and environmental targets. Hence, residents are targeted with a message that is meaningful to them.

Without having planned to use word-to-mouth as a communication means, according to one of the project initiators it might turn out to have been rather reliable and successful. People who have been in touch with Warm Zone and have experienced the service share their experiences openly, and certainly also critically with other locals. Hence, providing reliable, good and quick service is of utmost importance, in order to ensure information spreading informally within the target group remains positive.

Learning, evaluation and monitoring

Evaluation and assessment of the success of the scheme has been considered early on, already during the design phase. It was taken care to establish a reliable baseline and to monitor success continuously. Data on the progress of Warm Zone are reported regularly. Local reports, article and presentations ensure regular updates for the local community. Also regionally and nationally results are published and Kirklees Council and Yorkshire Energy Services staff has participated in national and international conferences. Much knowledge and experience gained is thereby shared with other local authorities or interested parties.

The most recent figures at the time of writing were those for the end of May 2009. Since the funding came from national, regional and commercial sources, figures on the effects and careful evaluation are required. There is expert staff at the council's Environment Unit and of course at the energy partner Scottish Power that are familiar with evaluation procedures.

Learning objectives were not explicitly included in the design of the programme. Since the Council monitors the proceeding of the programme closely, there is feedback on possible improvements to prevent failure and increase success, however. After the first year the programme was for example improved with respect to marketing, efficiency, staffing levels and the capacity of the installation company.

Additionally, there is a customer satisfaction questionnaire, which people can fill in after engagement with Warm Zone. Any feedback is taken up as quickly and effectively as possible. In the beginning there had been complaints about the installation company, which have resulted in better service capability. Nevertheless, there is still a considerable time lag between the first assessment, the technical survey and the actual insulation installations.

First reported responses from Warm Zone customers support that learning about energy consumption takes place in the population triggered by Warm Zone actions. Despite the fact that Warm Zone does not focus explicitly on climate change and the need to lower emissions, awareness is raised concerning these issues, as the following citation shows:

Customer testimony: John Rowden, Batley

John's experience with the project has made him think about saving energy in a different light. 'The Warm Zone scheme has helped me realise the importance of energy efficiency in my own life. I had always been a bit shy of things like energy saving light bulbs...but since using the ones Warm Zone sent, I now put them up everywhere. Out of it all I feel I have developed an understanding of a carbon footprint. Having things like those bulbs has made me want to be greener. I have grandchildren and it makes you think what it is going to be like for them in the future! We now turn lights off and we have even lowered the wattage on certain electrical appliances. It has raised my awareness which is one thing I thought I would never be bothered about.'

Kirklees Warm Zone disseminates information about its scheme to other parts of the country. Warm Zone has received a lot of attention throughout the U.K. and even abroad. It has provided numerous case studies to other local authorities and government bodies. It is considering allocating some time to train others in planning and carrying out such an ambitious programme, especially since the old, inefficient building stock is an issue throughout the U.K.

A wide range of outcomes is monitored and reported, ranging from economic to environmental outcomes. On the side of the project initiators, there is awareness for other, indirect outcomes, which are unfortunately very difficult to monitor, for example a decrease of costs in the health system if less people suffer respiratory infections and cardiovascular illness due to their cold and damp houses in winter.

Link to other programmes and policy

The programme was designed to help Kirklees meet European and national emission targets and link to local policies, including the Affordable Warmth Strategy and the Green Kirklees Change Programme agenda outlined below:

- **National LAA Indicators**

- **186 - Per capita reduction in CO2 emissions in the LA area**

- Warm Zone measures aim to reduce energy consumption in homes which in turn reduces the associated CO2 and should help us achieve our target of a 3% reduction p.a. of CO2 per capita.

- **187 – Tackling fuel poverty – % of people receiving income based benefits living in homes with a low energy efficiency rating**

- The scheme should move homes out of fuel poverty through measures such as free insulation, energy efficiency and advice about available benefits and debt management. (37% of homes completing an assessment form have been assessed as being in fuel poverty.)
 - Indicator 187 is based upon the SAP rating of households receiving certain benefits, Kirklees Warm Zone should reduce the number of households with a rating below 35 and increase the number of households with a rating of 65+.

- The Kirklees **Affordable Warmth Strategy** is the umbrella plan of action to eradicate fuel poverty across Kirklees. More than 40 organisations were consulted through strategy workshops and thematic groups which fed directly into the development of Kirklees Warm Zone.

- **Green Kirklees Change Programme Agenda**

- Reducing district carbon emissions – a Climate Change Plan is being developed for the Kirklees area working with various sectors across the district.
 - Delivery of Kirklees Warm Zone.
 - Increased renewable energy generation.
 - Greening Businesses and developing a green support programme for suppliers.
 - A Low Carbon Local Development Framework to support development of a green network and ensure users of the planning system built in a more sustainable way.
 - Raising awareness about climate change and other environmental issues and encouraging more sustainable behaviour.
 - Implementing a Sustainable Procurement Policy and corporate standard.

Step 4: Process of programme

Interaction between the different participants

While no residents were included in the design of the project, a large number of other relevant stakeholders, e.g. members of tenants and residents associations and community and voluntary representatives were consulted and helped developing the strategy action plans. Please see for a complete list the section 'Initiator and partners'. Furthermore, local residents are involved through the network of partner agencies who come into contact with members of the public; through local community groups who are informed about the scheme and through customers who want to tell their friends and family about it.

Due to the sheer size of the target group, it is impossible to speak of 'a standard opinion' it had concerning home insulation, prior to the project. Opinions must have been rather diverse. No survey was carried out to assess opinions prior to the project. Since the financial barrier was assumed to be the highest it was minimalised.

Regular feedback on the progress is provided by the council. It can be found on the internet, but has also been aired on TV, for example.

Reaction of the project manager to issues/problems

No large scale problems or controversies are known to the author of this case study. Issues which caused complaints early on in the scheme about the performance of sub-contracted construction/installation companies were quickly resolved.

Step 5: Outcome of process

Objectives/goals/outcomes

At the time of writing, Warm Zone is still in continuation. The objectives as set out by the project are being met and currently everything points to very positive results of the project. There were no learning objectives identified, but learning has taken place due to the close cooperation across partners. Many Kirklees citizens participate(d) in Warm Zone. Some figures on the outcomes (as reported for 31st May 2009) follow:

Data up to 31st May 2009	Number	Percentage
Number of homes visited by WZ (only completed wards)	124599	73
Number of homes assessed by WZ	88235	63 (completed wards)
Number of homes referred for survey	73708	84 (of homes assessed)
Number of homes surveyed by WZ	59401*	80 (of homes referred)
Number of homes insulated by WZ	30207*	41 (of homes referred)
		51 (of homes surveyed)
Number of homes already insulated prior to WZ	16321*	22 (of homes referred)
		27 (of homes surveyed)
Number of 'hard-to-treat' homes	5912*	8 (of homes referred)
		10 (of homes surveyed)
Number of homes requested carbon monoxide detector	79856	91
Number of homes referred to fire services	18397	21
Number of homes referred for benefits check	11986	14
Number of homes with confirmed new benefits	117	1 (of those referred)
Average value of new benefit/household	£2,729	
Number of homes requesting water conservation advice	13934	16
Number of homes referred to carers network	2206	3
Carbon Savings to date (tCO ₂)	27902	

N.B. Data up to end May 2009, assessments started Feb 2007, measures June 2007,

* Data 26th May 2009

The programme is deemed highly successful, at least as presented in the media and as discussed by several members of the Kirklees Environment Unit, including the programme manager. It has not only raised high awareness within Kirklees, but also nationally and even internationally.

Success increased during the course of the programme, as awareness rose naturally amongst citizens because first positive experiences had been made, shared with others and were made public. At the time of writing, 67% of the households visited took part in the programme already, and this figure was expected to increase (due to ongoing information campaigns, further increasing awareness and positive 'word-of-mouth') to an astonishing 80% in 2010. There is a 'mop-up' phase planned at the end of the project during which those households who declined the offers the first time they were visited by Warm Zone are approached a second time.

There are not only successes related to decreased energy demand and increased comfort and safety in people's home. Warm Zone also entails impressive direct effects on the local economy: The spending power of households increases as spending on energy bills decreases and many people benefit from higher benefit support they were made aware of in the

framework of Warm Zone. The financial benefits of the project are estimated to be £40-50 million in the end.

With respect to job creation, two main successes can be recorded: the managing intermediary Kirklees Energy Services has employed 50 freelance assessors and 11 full timers under the Warm Zone programme. The insulation provider Miller Pattison has opened a new depot in the Kirklees area where 88 people are now employed. (It is not clear from figures known to the author how many of these were employed by M.P. before already.) This depot is also utilised as the new national training centre for insulation fitters and at the time of writing at least 204 people have been trained already. New benefits advisers have also been employed by the Citizens Advice Bureau. Finally, there was one more job created at Safelincs, the provider of the carbon monoxide detectors.

Effectiveness

The programme does not consider pay-back times, since it uses public funding to insulate private houses. For so far no figures are available which show when the money saved by Kirklees households on energy savings might balance the public investment made. Projected annual household energy savings are £10 million/year against a council investment of £9.1 million. The programme as such, however, is well on track with respect to time and budget allocated.

Social learning

Social learning cannot be determined based on the information available. The success of the project in terms of turn-out rates and awareness in the population for Warm Zone are rated as a great success by the programme members spoken to. It is assumed that the benefits will be much farther reaching than ensuring the better insulation of houses and hence lowering consumption but increasing comfort. The target group's evaluation is taken into account by means of a survey, results were unfortunately not available to the author of this study.

The changes achieved are necessarily rather durable, as quality construction work is on Kirklees' buildings. No immediate or long-term behavioural change is required in this project, but a one-time favourable decision. The outcome of that decision then has a long-lasting effect, which is rather favourable if people agreed to insulation work being done in their home.

Follow-up of the programme

All people approached by Warm Zone are – if they are willing to participate – informed in detail about energy saving and other options than those offered by Warm Zone to decrease their energy consumption. Energy efficient light bulbs are for example already handed out for free, in order to raise awareness of people for such smaller options. There are no figures available how well information on EE measures is taken up and which changes follow in people's homes after and possible due to Warm Zone. A survey conducted by the Council will aim to learn more about these changes.

One effect of Warm Zone is, that also the renovations of hard to treat homes (usually older buildings who do not have cavity walls, for example, which require technically-challenging improvements, like solid wall insulation and the installation of renewable energy) are considered. The Local Government Association made the case for a national, council-led programme of basic insulation measures and reports that recent changes to the planning rules on permitted development make it much quicker to deploy these technologies compared to larger scale renewables, which can be held up by local objections.

Furthermore, other local councils and regions have shown great interest in the project and information has been shown in various media across the country. Already there are similar projects operating in other elsewhere in the UK, for example in Aberdeen and Birmingham. However, usually the services offered involve costs for the residents and currently only Kirklees is able to provide these services for cavity walls and lofts for free.

Step 6: Analysis and conclusion

The following factors were crucial for the success of the project:

- Various funding streams were merged effectively in order to support an ambitious project focusing on a large target group: The enormous budget of £21m allowed offering all insulation included in Warm Zone for free to all citizens. This kind of service for such a large target group is unprecedented, even in such a highly environmentally active region as Kirklees. All opportunities were employed to tap into available funding: regional and national funding were combined with that of financial support from the industry.
- A strong and large network was developed to design and carry the project: The network established to develop the project and carry it out is large and comprises a rather large number of actors from the local authority, public interest groups and a large industrial player. This enabled a broad approach to the problem and great expertise for the various aspects of the project. At the same time, all these players were strongly locally rooted and allowed the funding to flow into local economy.
- The large number of stakeholders and their various interests could work well together under a common umbrella goal: The great vision of bringing free cavity wall insulation to every house suited and hence driving down consumption considerably while at the same time stimulating local economy kept the large number of actors focused and together. At the same time could all their individual interests (e.g. to also inform about pension services or water conservation) be included smoothly into the information campaign and the contact with residents. Hence the project remained focused on energy, but incorporated a variety of aspects, such as social security, or comfort at home.
- A brand was created for the project which was strategically and effectively communicated: The communication strategy employed was unprecedented for a publicly financed project. It made use of a variety of media, was kept simple and convincing and was presented reliably under the name of the Council. Slogan, logo and website were developed to brand the initiative and raise awareness and recognition. No suspicion concerning the interest of the industry grew in the population, for example, which might have hampered participation. Furthermore, the communication did not focus on the 'energy efficiency', but on the 'comfort', to which people can relate to much more.
- The main initiator and programme developer is part of the local government and experienced continuous political support for several decades: The work of the Kirklees Environmental Unit has received support across parties over a decade now. This guarantees the continuation and support of larger projects, such as the present case. Additionally, the technical expertise of the Unit is high and allows quality assessment of problems and possible solutions, and the monitoring of them. Delivering reliable evaluative results ensures further support.

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Interviews

Collective meeting and discussion with

Phil Webber – Head of the Environment Unit Kirklees Council

Heidi Smith – Environment Unit Kirklees Council

Helena Tinker – Environment Unit Kirklees Council

on 6th March 2009 in the unit office in Huddersfield, England

Personal communication via email with Sarah Spiliotis, Environment Officer of the Kirklees Council Environment Unit on 23rd April 2009.