WORCESTER POLYTECHNIC INSTITUTE

Energy Evaluation of the New Horizon Centre

Interactive Qualifying Project submitted in partial fulfillment of the Bachelor of Art Degree at Worcester Polytechnic Institute, Worcester, MA

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Abstract

The New Horizon Centre is a community center located in the London Borough of Merton and is operated by the Commonside Trust. In order to save money and be more environmentally friendly, the Trust requested that this project team evaluate energy use at the Centre and recommend ways to increase its efficiency. To do this, the team performed an in depth energy audit on the building, the details of which were determined through research prior to the team's arrival in London. In addition, it was pivotal that the team identify sources of funding for their recommendations, because the Trust is a non-profit group on a tight budget. It was also important that the team engage the local community during the process, because it is a large part of the work that the Trust does.

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Executive Summary

The Commonside Community Development Trust is a non-profit organization working in the Pollard's Hill area of the London Borough of Merton. Their goal is to improve the lives and environment of the people of Merton. To do this, they manage their community center, the New Horizon Centre, from which they run community events and development programs. Part of the work the Trust does involves promoting energy efficiency and sustainability. To help them serve as a better example to the community in that respect, the Trust sponsored this project to investigate energy usage at the New Horizon Centre and recommend improvements that can be made to reduce energy use. Alongside that, it was important that the project group research sources of funding that the Trust could utilize to fund our recommendations. In addition, the team had to be sure to engage the community in the process.

Methods

In order to assess the state of energy consumption at the New Horizon Centre, the team performed a level III energy audit of the building. This involved a checklist based walkthrough of the building, taking lumen readings, and testing for drafts with a chemical smoke testing. As a supplement to the audit, the team also surveyed employees of the New Horizon Centre to gain insight into their energy related habits. The audit was the main factor in justifying the team's recommendations to the Commonside Trust. In order to locate funding, the team interviewed several figures who work in energy related areas and had knowledge of available grants. In order to engage the community during the process of evaluating the New Horizon Centre, the team conducted a survey of its patrons. The survey was conducted in a face-to-face manner by

the team during the day, and a paper questionnaire was left in the lobby at night in order to reach those who come to the Centre at night.

Results and Recommendations

The walkthrough audit brought insight into the state of the New Horizon Centre from an energy efficiency perspective. The way the building is lit is already a step ahead because of the ubiquitous use of fluorescent lighting. However, there is still room for improvement as LED lights are even more efficient than fluorescent tubes. The team's calculations show that switching to LEDs would cut down energy demands for lighting by 69%. Given the cost of these new lights, the payback period for them would be three and a half years. The New Horizon Centre is heated by forced hot water which is heated by four boilers. The team calculated these boilers to be 78% efficient, which placed them in Band E of SEDBUK's database rankings. There is definitely room for improvement, but new boilers would be costly. There is room for approximately 12.75% efficiency in this area. This has the potential of saving approximately 1500 Pounds annually. The heating system is controlled by a 7-day timer, which is beneficial to the building's energy bills. It still may be necessary to take a second look at the schedule the heating system is on and the temperature values. The team found the building envelope to be in good shape, overall. All of the windows are thick, double paned, and well sealed. One issue the team did find was weather stripping on both emergency and sliding doors. Replacing the stripping is an inexpensive fix and will cut down on heating losses. A glaring issue with the building envelope is a lack of roof insulation on the newest part on the building. The difference is notable when you enter that part of the building, and that issue should be rectified.

The most important result from the survey of community opinion pertained to the appearance of the building. The Trust was concerned that if solar panels or a wind turbine were installed at the New Horizon Centre, locals might be put off by it and may not want to go to the Centre any more. The results of the survey showed that solar panels would send a positive message to the community. On the other hand, locals may be put off by a wind turbine.

With the results of the survey in mind, the team explored the possibilities of utilizing solar energy at the New Horizon Centre. The building itself is a good candidate, it is located in a large clearing without shade on its roof, it has a flat roof, and the panels can be easily oriented towards the south. To estimate payback, the team used a hypothetical PV array with a 4.4 kW nominal power. Such a system would produce 3726 kWh of power, which amounts to a savings of roughly 261 pounds per year. The payback period of this system calculated to 87 years. This number is not unheard of in England as it is at high latitude and is susceptible to cloudy weather. For such a system to be viable, the Trust would have to acquire funding.

Because the community is such an integral part of the work that the Commonside Trust does, the team determined ways to involve it in the process of reducing energy use at the New Horizon Centre. Because the Trust offers rooms for rent for various functions in the Centre, it is important that those using the rooms know the importance of using the room correctly from an energy use standpoint. The team created a poster that can be posted in these rooms to inform people using the room of these practices so they can participate. In addition, the team created a draft syllabus for an energy efficiency awareness class that would teach people how to save energy in their own home.

Multiple sources of funding were found that the Trust could utilize to bear the financial burden of adopting some of the more expensive recommendations. The grants are shown in Table 1.

Funding Opportunity	Amount/Type
Scottish Power	£25,000 maximum
SITA Fast Track Fund	£10,000 maximum
SITA Core Fund	£50,000 maximum
JJ and Mark Leonard Charitable Trusts	£125,000 maximum
Awards For All	£10,000 maximum
Santander Foundation Grant	£10,000 maximum
The Salix Energy Efficiency Loans Scheme 2	0% Interest loan for projects over £5,000

Table 1: Listing of Funding Opportunities

In addition, the UK offers a substantial feed-in tariff for PV arrays that are not grant funded. These grants offer significant amounts of capital, however, the Commonside Trust may run into some roadblocks acquiring these grants themselves. The Trust does not have a lease for the New Horizon Centre and some of these organizations, such as SITA, are reluctant to fund organizations that do not have a security of tenure. Acquiring some of this funding would be a great help to the Commonside Trust. By making improvements to the New Horizon Centre, they would be able to save costs on energy.

Authorship

This project divided tasks as deemed necessary and fitting given particular skill sets. Stephen Cialdea contributed to government policies and incentives, interviews, energy auditing methodology research and implementation, aided in the review process, and had a major hand in presenting the results, recommendations, and conclusions in this report. Michael Doyle contributed to energy saving alternatives, government policies and incentives, all photovoltaic array research and conclusions, the writing of the executive summary, interviews, lighting background research, heating and cooling systems research, smart metering research, office equipment research, aided in energy audit implementation and was the chief editor of this report. Samantha Sinapi contributed the floor plan, energy efficiency material design, and had a major hand in survey creation and implementation, and aided in energy audit implementation.

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1 Introduction

Within the scientific community there is growing consensus that global warming is being caused by increasing levels in greenhouse gasses, the major contributor being carbon dioxide. Human industry is predominantly responsible for the rising levels of greenhouse gasses. If global warming continues unabated there will be many environmental impacts resulting from major climate changes. In response to climate change, the international community has established a number of policies which work towards reducing greenhouse gas emissions.

The UK is among these countries setting their own targets for carbon reduction. The Climate Change Bill of 2009 sets the goal of reducing carbon emissions by 60% by 2050 (Bradley, Druckman, Papathanasopoulou, & Jackson, 2007). This legislation has prompted a response at the local level. The London Borough of Merton has enacted legislation of its own, which entails more stringent goals than those set by the national government. In 2008, the Merton Rule was created, which requires all new buildings to have a zero carbon impact. It also creates targets for carbon reduction in existing buildings.

The Commonside Community Development Trust, among its other responsibilities, is working to be a leader in promoting energy efficiency within the local area. To serve as a better model of energy efficiency, the Trust would like to ensure that its main building, the New Horizon Centre, be operated as efficiently as possible. The goal of this project was to evaluate the energy consumption of the Centre and to recommend measures the Trust can take to reduce consumption and carbon emissions. To do this, we determined state-of-the-art energy audit practices to create an auditing process tailored to the New Horizon Centre. Next, we completed

an in-depth energy audit of the Centre. The team then used these results to create a set of recommendations that the Trust can adopt to realize their energy efficiency goals.

There are numerous grants that the Trust is not eligible for because of the short term lease provided by the Merton Council. This project has sought out funding organizations to provide written proof that this is what is impeding the New Horizon Centre from obtaining most grants. This proof can now be presented to the Merton Council to create a stronger case for the New Horizon Centre.

During this process the team has also identified local opinions on the operation of the Centre and how adding efficient equipment, such as photovoltaic panels or a wind turbine might change the local opinion of the New Horizon Centre. The pay back for these energy harvesting options have been calculated so that the Commonside Community Development Trust may decide whether these alternatives are practical for the building or not.

To assess the energy consumption of the New Horizon Centre, an energy audit of the building has been performed. This involved the analysis of past energy bills, lux readings, chemical smoke tests, illumination evaluation, boiler evaluation, walk through checklist audit, and a survey of employees to investigate relevant energy habits. Together, these tests have enabled us to quantify the current energy consumption in the building. The team then determined how much energy will be saved by contrasting new alternatives with the current energy use and loss found in the audit. With these comparisons, the team has created a list of recommendations which include changes in equipment, material and relevant employee habits.

2 Background

Global warming is a topic of rising concern across the entire world. The main cause of global warming is the increase of greenhouse gasses. Some greenhouse gasses are methane, carbon dioxide, and nitrous oxide. All these greenhouse gasses are naturally made, but due to the effect of products created by humans, these gases' emissions have been increasing. The Intergovernmental Panel on Climate Change (IPCC) states that carbon dioxide (CO_2) is the main anthropogenic gas that is accelerating global warming. Figure 1 shows the increase of greenhouse gasses and which gasses have the most emissions. The increase of carbon dioxide causes changes in climate all over the world. These changes in temperatures can lead to the death of crops, changes in water level, and changes in weather patterns. With such major climate change, people question what is going to happen in the future, which is challenging to predict accurately at this point. Researchers from IPCC state that "by the end of the 21st century the late summer ice in the arctic will be all gone" (Bernstein et al., 2007). This is a cause for major concern and countries have begun planning ways to reduce greenhouse gasses.

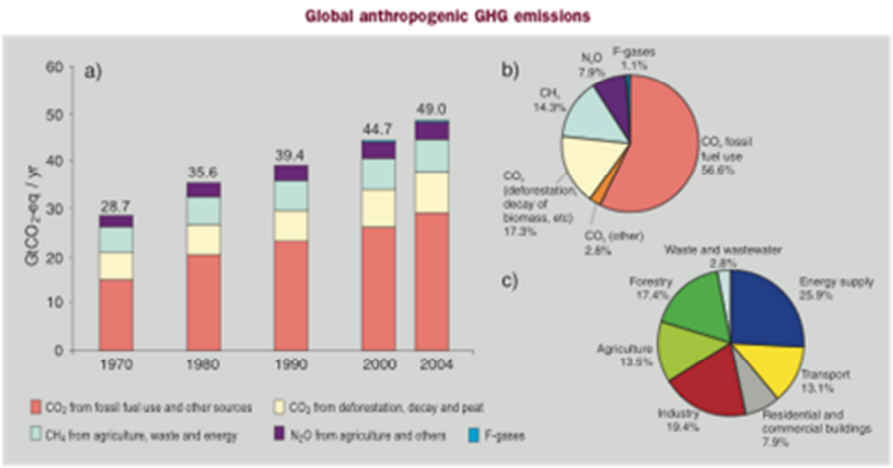

Figure 2.1. (a) Global annual emissions of anthropogenic GHGs from 1970 to 2004.[1] (b) Share of different anthropogenic GHGs in total emissions in 2004 in terms of CO_2-eq. (c) Share of different sectors in total anthropogenic GHG emissions in 2004 in terms of CO_2-eq. (Forestry includes deforestation.) (WGIII Figures TS.1a, TS.1b, TS.2b)

Figure 1: Global Anthropogenic GHG Emissions (Bernstein et al., 2007)

Since climate change is a global concern, countries are joining together to develop solutions. An example of this effort is the United Nations Framework Convention on Climate Change (UNFCCC). The United Kingdom and the United States of America are example of countries that signed into the UNFCCC. The primary goal of the UNFCCC is to gather the international community to discuss the problem on a global level. Another example is the joint effort from various countries called the Kyoto Protocol. The primary goal of this protocol is to lower carbon emissions by 2012 (Cosgrove, 2009). It is a starting point for countries to target climate change and to create their own ideas and plans on how to get rid of greenhouse gases. Figure 2 is a 2009 map showing which countries are ratifying in the Kyoto protocol. The countries that are in green have signed and ratified the protocol and the ones in red have signed but not ratified (CC Denmark by KEEN AS, 2010). Some countries that signed into the Kyoto Protocol are United Kingdom, China, Japan, and France. The Protocol opens the way for the individual countries to begin the discussion of how to create policy to reach international goals.

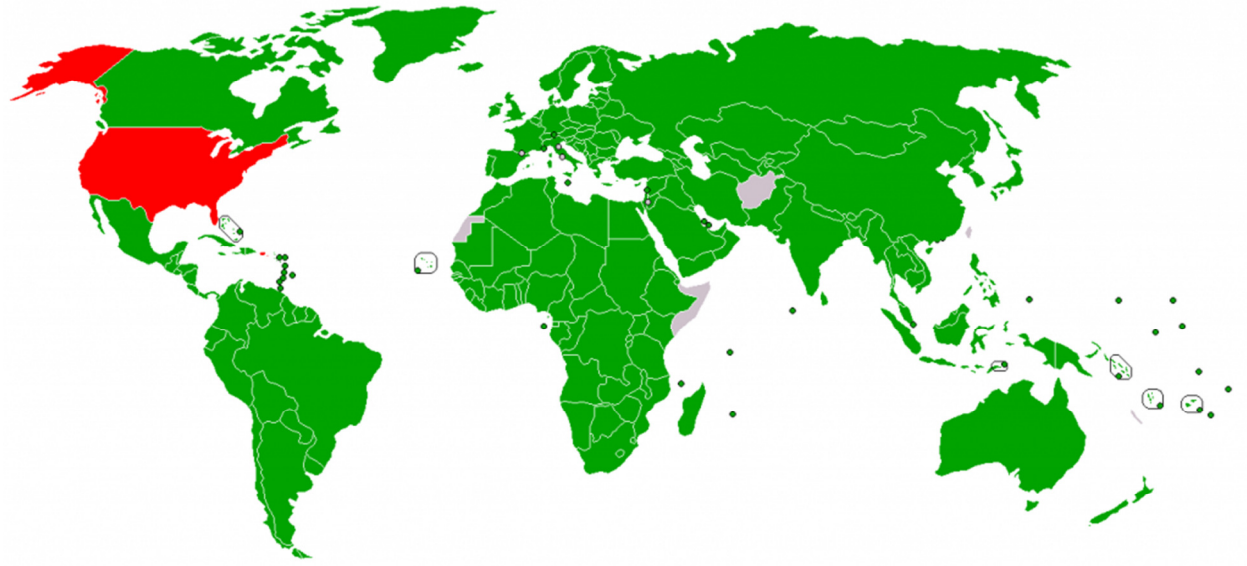

Figure 2: Countries Involved in Kyoto Protocol (CC Denmark by KEEN AS, 2010)

The United Kingdom has set up plans to become more energy efficient and reduce carbon emissions on a national level. To reach the goals set by the Kyoto Protocol and reduce carbon emissions the Climate Change act of 2008 was drafted. In order to make the Climate Change Act more effective, targets were later set in the Climate Change Bill of 2009 to reduce carbon emissions by 60% by 2050 (Bradley et al., 2007). To reach these goals the Boroughs of London have come up with their own policies. The London Borough of Merton created a policy called the Merton rule, which targets energy efficiency and embedding it into everyday life, "the policy requires new building and homes to have ten percent of their energy coming from renewable energy equipment" (Merton Council, 2010). With this rule any new building that is being constructed will be energy efficient and will help lower the carbon emission. This means that schools, houses, markets, and any type of building that are built will have renewable energy

resources in them, decreasing the impact on the environment. Some ways to utilize renewable energy are solar panels, energy efficient light bulbs and internal and external building materials. Merton is on the leading edge of energy efficiency but, there are always ways to improve by energy auditing old buildings and ensuring that new construction is energy efficient.

2.1 Energy Audits

One of the goals of this project was to complete an energy audit. The energy audit investigated the energy efficiency of the New Horizon Centre at the time this project was starting so that recommendations can be made on how to increase the efficiency. This section will present the details of what an energy audit is and how it is performed.

2.1.1 Definition of Energy Audits

According to Article 3, section l, of The European Parliament and the Council of 5 April 2006, an energy audit is "a systematic procedure to obtain adequate knowledge of the existing energy consumption profile of a building or group of buildings, of an industrial operation and/or installation or of a private or public service, identify and quantify cost-effective energy savings opportunities, and report the findings." This definition calls for quantifiable testing and practical solutions for an energy audit that can be done on many levels. An energy audit can be applied to a large industrial firm, small buildings[1], and everything in between. Audits are used by managers and owners of buildings to reduce their energy consumption which saves money and is beneficial to the environment. Additionally, The Merton Rule now calls for audits to be performed on all

[1] Even small residential apartments (Parliament and the Council of 16 December 2002)

new buildings. Whenever a building is erected, has a change in ownership, undergoes major renovations, or changes tenants in the European Union an energy performance certificate must be presented to the new owner or tenant per requirement of Articles 6 and 7 of the European Parliament and the Council of 16 December 2002. These certificates are then only valid for a maximum span of ten years.

There are several levels of audits which can be quantified as levels I-III (Thurman, Younger, & Niehus, 2010). A Level I audit involves observation during and 'walk-through' of a facility, which are recorded on checklists (Appendix B) and picks up only the more obvious sources of energy waste but can determine if a more in depth audit is required. Level II is considered a standard energy audit and involves taking measurements and examining equipment to determine the energy impacts. The energy use is approximated through an analysis of previous energy bills and compared to buildings of similar size using the Energy Use Index. This index is a metric of how much energy specific types and sizes of buildings should be using. Analysis of the energy bills also includes trending of energy use over time, which reveals spikes in energy levels that may need to be investigated. Level III involves a full analysis of past energy bills, comprehensive techniques such as thermal imaging, positive pressure testing, light readings, and measuring electrical component power usage. The data is thoroughly analyzed and used to develop an implementation plan to achieve optimal energy efficiency for the building being audited (Krarti, 2000).

2.1.2 Audits in the United Kingdom

According to the European Parliament and the Council of 16 December 2002 energy audits must be done by a "qualified and/or accredited expert." In the United States, this is not the case, but would be the difference between a level I or II audit versus a level III audit that a professional would be able to perform. There are many companies throughout the United Kingdom that will assist with a proper energy audit (FreeIndex.co.uk, 2011). Professional audits have the advantage of making use of tools such as thermal cameras and chemical smoke kits, which can be used together to produce a comprehensive audit. There are other tests such as a blower door, which is basically a fan that pushes air into the building, to exacerbate air leakages that can be more readily identified with an infrared thermal imaging and chemical smoke testing. The thermal image can be taken from inside the home or outside the house, looking for cold spots on the inside and warm spots on the outside (for winter circumstances). Thermal imaging also gives the home or business owner a good idea of any areas that are poorly insulated. The closest home option for this sort of energy audit would be to use a point thermal sensor, which will only tell the user the specific temperature at one area instead of producing a thermal image (United States Department of Energy, 2010h). If done carefully, thermal point tests can yield a similar result to thermal imaging, but is not as likely to be as thorough.

Energy audits can also be very effective without the use of expensive equipment. Drafts in homes can be a significant loss and are usually the biggest, causing anywhere from 5-30% loss of energy. Often drafts can be felt with touch in areas such as outlets, switches, windows, edges of rooms, doors leading outside the building, fireplaces, attic and cellar doors, and around air conditioners (United States Department of Energy, 2010b), which would be inspected in a level I walk through audit. The possible problems that can be categorized in a walk through audit can

be seen in the checklist in (Appendix B). Possible upgrade options can be based upon Her Majesty's Government standards which can be seen in The Building Regulations L1A, L1B, L2A and L2B. These regulations are a good starting point to find out if existing equipment and insulation is sufficiently energy efficient.

Analyzing energy bills can also be a good method of investigating energy use. By looking at historical energy data peaks and troughs of energy use can be seen. These energy spikes can be associated with certain seasons and the equipment run in those seasons can be inspected and more efficient alternatives can be researched. Analyzing energy bills will also give insight into how much of each type of energy is being used, which can be useful information.

2.1.3 Government Policies and Incentives

In the European Union, energy regulations are decided on the country level, much like the arrangement of power seen in the United States where the power is held in the individual state's hands, but guided by the national government. In the U.S., the building energy codes are usually defined by a board within each state that meets periodically for updates. For example, in Massachusetts the state Board of Building Regulations and Standards is responsible for updating the building code at least once every three years. In England (and Wales) only the Secretary of State has the power to edit the Building Regulations. The Building Regulations Advisory Committee serves to advise the Secretary of State in making and/or changing these regulations (Department for Communities and Local Government, n.d.).

There are incentives for energy efficiency in the United Kingdom as well as directives in the Building Regulations[2]. By regulating the efficiency standards of appliances and buildings the government can have direct control over the implementation of energy efficiency. The government offers programs that will aid with costs and entice landlords to use energy efficient materials. The following is a list of funding opportunities available to the Commonside Community Development Trust:

- Scottish Power – Green Energy Trust
    - Amount: £25,000 maximum
    - Will fund up to half of the cost of renewable technology
        - Project must be completed before application
- SITA Trust
    - Fast Track Fund
        - **Requires ownership of the building or a lease of at least 10 years**
            - Can be applied for by the Merton Council on behalf of the Commonside Community Development Trust's behalf
        - Amount: £10,000 maximum
            - For projects under £20,000 total
        - Available for new physical improvements (new heating systems, double glazing, any other improvements to energy efficiency)
        - Deadlines are June 20th, August 22nd, and October 22nd
            - Notification of the decision is about two months after the deadline for each

[2] The United Kingdom's government building codes

- Core Fund
  - **Requires ownership of the building or a lease of at least 10 years**
    - Can be applied for by the Merton Council on behalf of the Commonside Community Development Trust's behalf
  - Amount: £50,000 maximum
    - For projects under £250,000
  - Available for new physical improvements (new heating systems, double glazing, any other improvements to energy efficiency)
  - Deadline is July 25th
    - Notification of decision is November 25th

- JJ and Mark Leonard Charitable Trusts
  - Amount: £2,540 - £125,000
  - Must be used for environmental education
    - Preference to children and young adults
  - No deadline, accepted proposals will be returned in 8 weeks

- Awards For All
  - Amount: £300 - £10,000
  - Can be used for training, transport costs, venue hire, publicity materials for the project, equipment, land, and building refurbishment projects less than £25,000 (including taxes)
  - Must apply for funding at least three months before the start of the project

- Santander Foundation Grant
  - Amount: £10,000 maximum

    - Must directly aid disadvantaged people though education or financial capability
    - Can be used for equipment, training, project costs, salaries
- The Salix Energy Efficiency Loans Scheme 2
    - Up to 100% of energy saving in the form of an interest free loan
    - Minimum value of project is £500 and the total minimum application and loan amount is £5,000
    - Project must have a payback less than 5 years

2.2 Energy Saving Alternatives

As shown in Figure 3, different elements of a typical non-domestic building contribute to carbon emissions in varying degrees. Clearly, heating results in the largest amount of carbon emissions at 46%. Lighting and cooling and ventilation follow with 23% and 11% contributions, respectively. The potential for reducing carbon emissions in these areas can be seen in Figure 4. In order to reduce the carbon footprint of a building, energy saving alternatives must to be considered for the heating, lighting, and office equipment in the building along with the other uses shown on the chart. This section will explore these alternatives.

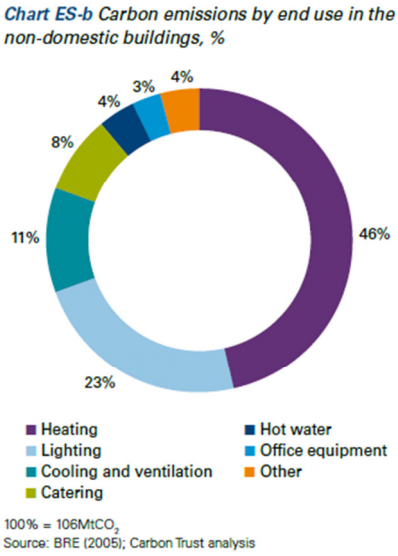

Figure 3: Carbon Emissions in Non-Domestic Buildings (Carbon Trust, 2009b)

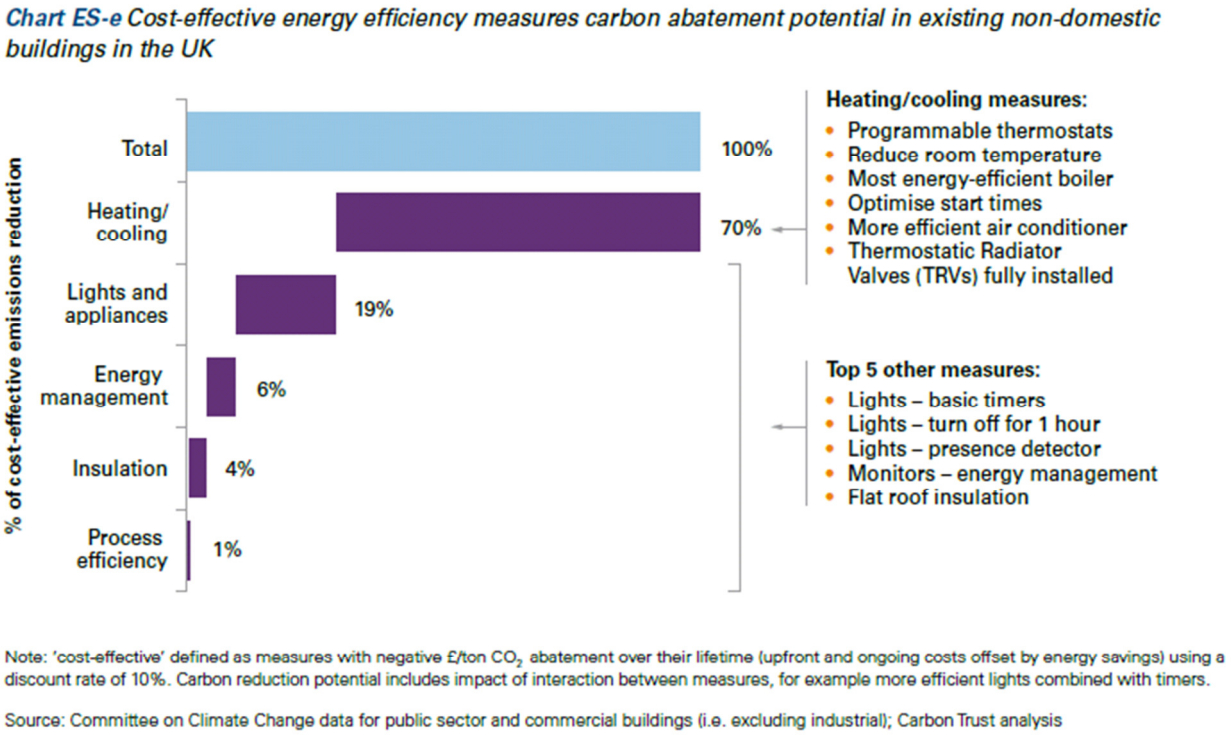

Figure 4: Potential for Carbon Emission Reduction (Carbon Trust, 2009b)

2.2.1 Energy Harvesting Alternatives

Most of this report has dealt with the notion of saving energy, but this section will investigate renewable sources of energy that can be used. The most common types of renewable energy harvesting are photovoltaic, wind, and geothermal. Since the New Horizon Centre is in an urban area, this report does not include analysis on geothermal.

2.2.1.1 Photovoltaic Arrays

Photovoltaic (PV) panels can be an effective way to produce renewable energy from the environment. Since one panel does not produce much power, usually an array of panels is used. These panels will not often produce more energy than is being used in the building, but if they do then the energy can be put back in to the common power grid which will give the building credit towards future energy purchases. They are low maintenance and produce completely renewable energy but are sometimes not practical because they are expensive and do not have a high efficiency.

Since the panels produce energy from radiation, it is desired that they are angled so they receive the maximum radiation from the sun. The average yearly solar radiation in the UK can be seen in Figure 5. In London, the tilt angle to get the most sunlight is approximately 30˚ (Carbon Trust, 2008). In order to further maximize the amount of radiation that the panels receive, the panels can be mounted so that they track the sun as it travels across the sky. Having the panels track the sun will reduce radiation that is reflected off of the panels without reaching the photovoltaic materials (JRC European Commission, 2010).

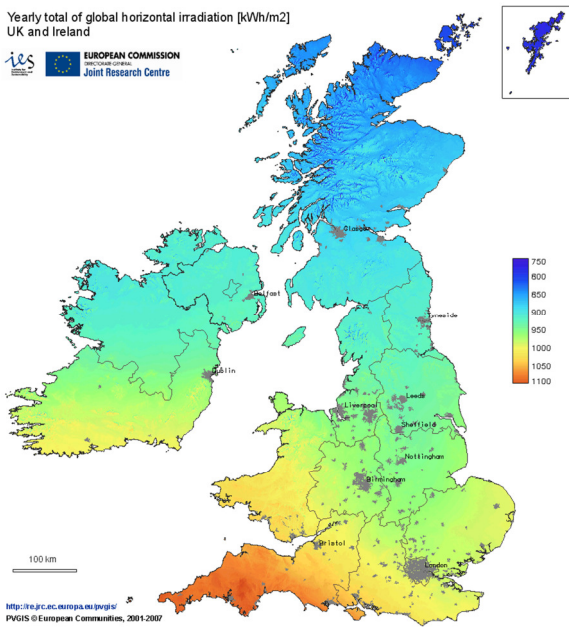

Figure 5: Solar Irradiation of the UK and Ireland (JRC European Commission, 2008)

One important factor that plays in to designing a photovoltaic system is the type of panel that should be used. The most common panels are crystalline silicon PV, which tend to be between 12-15% efficient. Thin-film PV is another option to consider. While they are not as efficient as crystalline panels, with an average between 6% and 10%, they are less expensive, lighter, and more flexible than other alternatives (Carbon Trust, 2008). In the end, the choice of panel is determined by the needs of the building and available funds.

The costs associated with PV systems play a very important role in its feasibility. A roof mounted PV system costs from £5000 to £8000 per kWp (peak power output), although at current prices systems can cost below £4500 per kWp. As the size of the array increases, its cost per kWp will drop (Carbon Trust, 2008). These costs are split between the actual panels, labor,

and control equipment (Carbon Trust, 2011). Figure 6 shows the cost breakdown of a solar array at the Stoke Local Service Centre.

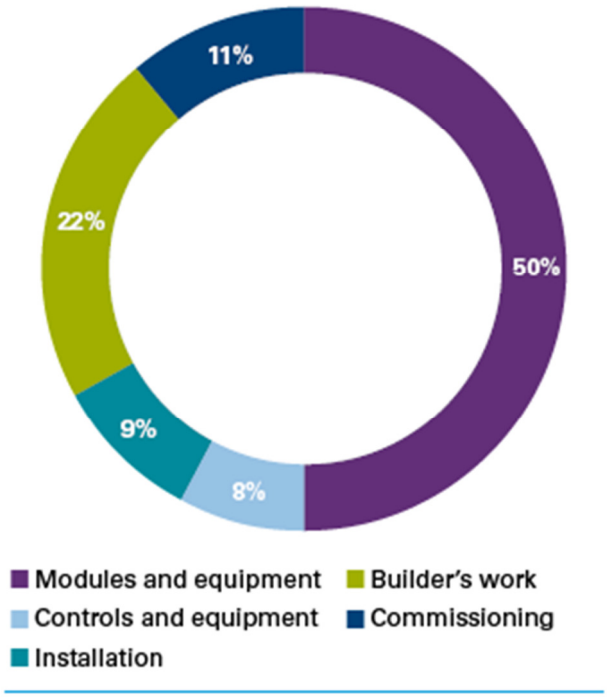

Figure 6: Cost Breakdown for PV Installation at Stoke Service Centre (Carbon Trust, 2011)

The cost of the array is used to calculate the payback period of the entire PV system. In addition to the cost of the entire system, the payback calculation must also include estimates of the power the array will produce and the price of electricity. In the UK, payback periods can tend to be longer than the life of the system itself. There are some cases that the Carbon Trust has studied where that is not the case. The payback period for the Stoke Local Service Centre mentioned earlier is 16.5 years for instance. That period would be even smaller if it were installed at current prices, cutting the payback to 12 years. Receiving funding through grants or

feed-in-tariffs would also shorten the payback period (Carbon Trust, 2011). Although these payback periods may seem lengthy, investing in solar panels compares favorably to other types of investments, such as savings accounts and stocks in some cases. (Andy Black, 2009).

2.2.1.2 Solar Thermal Collectors

Solar thermal collectors are similar to solar panels aesthetically but collect heat from the sunlight instead of photons. This can be an effective way to harness the electromagnetic energy from the sun that reaches the earth. In this section the different types of solar thermal collectors will be discussed and how they may be used at the New Horizon Centre. It is important to note that the thermal collector collects energy in the form of heat. The system overview can be seen in Figure 7. This is the standard system set up and requires a large holding tank.

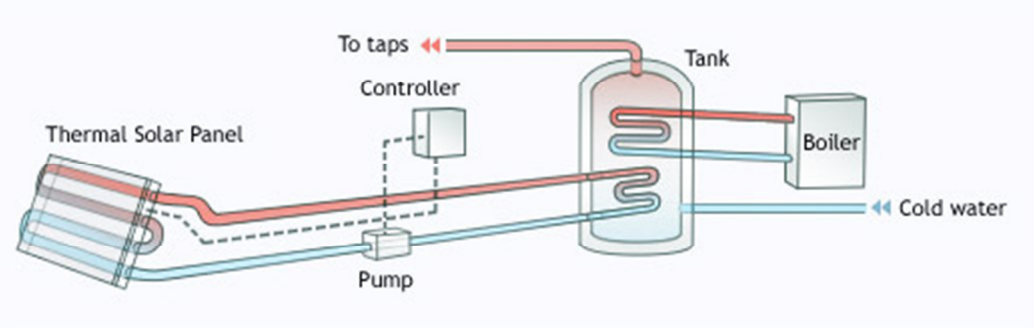

Figure 7: Thermal Collector Overview (Green Works, 2010)

The main types of collectors are flat plate and evacuated tube. The evacuated tube is the more expensive but the usually the better alternative. The evacuated tube design is more

practical for areas that experience colder weather throughout the year. That is a result of the energy being collected in vacuum sealed tubes and which causes much less thermal loss than the flat plate. A flat plate can utilize the ambient outdoor heat on top of solar energy to heat the water, but because England is in a cooler climate that would not play much of a role.

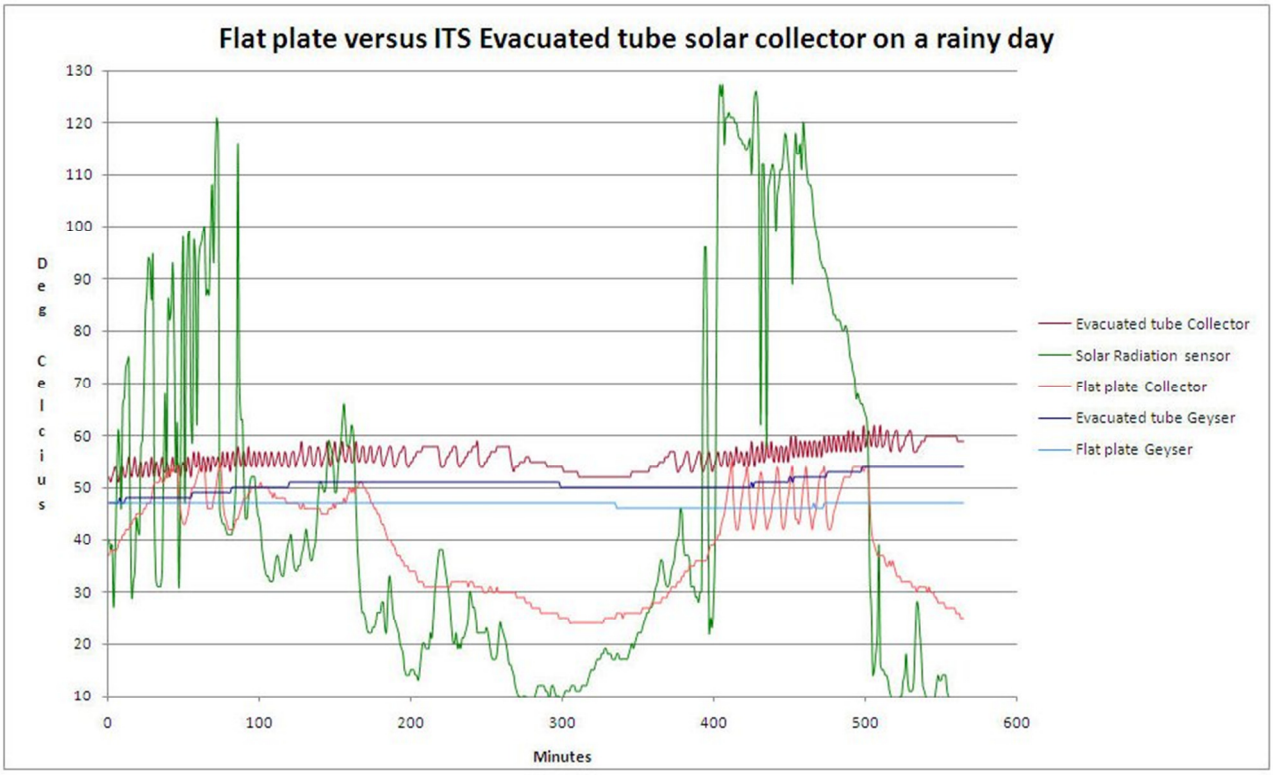

Figure 8: Flat Plate vs Evacuated Tube (ITS-solar Ltd, 2009)

Figure 8, shown above, displays a side by side comparison of similar sized evacuated tube and flat plate collectors. It can be seen that the evacuated tube is the more efficient of the two. The evacuated tube collector is staying fairly constant while the flat plate is fluctuating enormously with the solar radiation. This can be overcome with large water holding tank.

2.2.2 Lighting

Lighting an average American household accounts for 15% of its energy use, and 23% in a British non-domestic building. As shown in Figure 9, new lighting technologies can offer a significant decrease in this amount. Compared to incandescent light bulbs, which are most common, more efficient technologies can offer a 50% - 75% decrease in energy used for lighting (Carbon Trust, 2010a; United States Department of Energy, 2010e).

Existing lamp type	Energy-efficient option	Energy saving benefits
 Standard (tungsten) light bulbs	 Replace with energy saving compact fluorescent bulbs in the same fitting*	75% energy saving plus longer lamp life
 38mm (T12) fluorescent tubes in switch-start fittings	 Replace with equivalent 26mm (T8) fluorescent tubes of lower wattage	8% energy saving plus longer lamp life
 High wattage filament lamps or tungsten halogen lamps as used in floodlights	 Replace with high-pressure sodium or metal halide lighting	65-75% energy saving plus longer lamp life
 Mains voltage reflector lamps, filament spot and flood types	 Replace with low-voltage tungsten halogen lighting or metal halide discharge lighting	30-80% energy saving for equivalent lighting performance
 Fluorescent fittings with the old 2ft 40W, and 8ft 125W fluorescent lamps	 Replace with modern, efficient fittings using reflectors/louvres or efficient prismatic controllers with high-frequency electronic or low-loss control gear and triphosphor lamps	30-45% energy saving with much improved lighting quality. The use of high-frequency electronic control gear eliminates flicker, hum and stroboscopic effect
 Fluorescent fittings with opal diffusers or prismatic controllers which are permanently discoloured	 Replace with new prismatic controllers or replace complete fittings as above	No reduction in energy consumption but increases the amount of light by between 30% and 60%

Figure 9: Comparison of Light Bulb Technologies (Carbon Trust, 2010a)

Fluorescent lighting is used throughout the New Horizon Centre and is fairly energy efficient. Fluorescent bulbs use 25% - 35% of the energy that incandescent bulbs do, while emitting the same amount of illumination and lasting about 10 times longer. Other advantages can be seen in Appendix A. Fluorescent bulbs also emit less heat than incandescent bulbs. Some drawbacks to fluorescent bulbs are that they lack color rendition when compared to incandescent bulbs and they are more expensive up front (United States Department of Energy, 2010c). They can also create stains on the diffusers and block a large portion of the light they create, which is a large problem at the New Horizon Centre.

The light emitting diode (LED) is another alternative technology to incandescent lighting. LEDs use 25% of the energy that incandescent bulbs do, while lasting 25 times longer. They also emit very little heat and have a similar color rendition to fluorescent bulbs. Other aspects of LED performance can be seen in Table 1. Because LEDs are directional, they are not best suited for ambient lighting unless put through a diffuser, but they are superior to other alternatives for task lighting because their light does not need to be reflected (United States Department of Energy, 2010d). Fluorescent lighting and LEDs are both reasonable alternatives to incandescent lighting which offer significant energy savings.

Day lighting is another option that can be utilized to reduce the use of energy to light a building. Simply put, day lighting is the use of windows and skylights to bring natural sunlight into a room (United States Department of Energy, 2010a). If a building has windows, day lighting already occurs and artificial light probably does not need to be used in those windowed rooms during the day. There are some day lighting principles that are tied to the positioning of

windows around the building, which would be costly to implement on an existing building (United States Department of Energy, 2010a). Despite that, there are other more accessible options worth being explored. In his article, Rapheal explores the use of light shelves. A light shelf is "a horizontal or inclined projection with a high reflectivity meant to increase the depth of daylight penetration into a room" (2010). Usually, a light shelf is stationary during the course of the day. He describes a method to make light shelves even more effective by adjusting them during the day to better suit the position of the sun (Raphael, 2010). Daylight blinds are another way of increasing the natural light in a room. These blinds reflect sunlight upward into the room, maintaining brightness while reducing direct exposure and glare (Carbon Trust, 2010c). Light shelves, either adjusting or stationary, and daylight blinds are an option to improve the day lighting of an existing building.

2.2.3 Heating and Cooling

Heating and cooling accounts for 56% of energy consumption in US homes according to the DOE and 46% in British businesses, according to the Carbon Trust (Carbon Trust, 2010a; 2010g). The technologies of heating and cooling do not only include the actual furnace or air conditioner, but also supporting equipment such as air ducts and thermostats. In order the maximize efficiency of heating and cooling system, the entire system must be evaluated and improved, which can be costly. In some cases, it is best to start with improving the supporting equipment in order to increase efficiency in a cost effective manner.

2.2.3.1 Thermostats

Due to the growing cost of heating and cooling a building, much research has gone into how to best manage these systems to reduce their use overall. Simply setting back thermostats when a building is unoccupied can save on energy used to heat it (Moon & Han, 2011; 2010i). Many thermostats are programmable, so occupants of the building don't even have to remember to reset the temperature for these setback periods. Studies have shown that a 1°C setback can cut heating costs by 8% (Carbon Trust, 2010c). Meyers et al. look even further into the potential for thermostats to increase heating and cooling efficiency (2010). They find that thermostats can be even more effective when they control different zones within a building, because it cuts down on overheating some areas of the building. This change increases the efficiency of the entire system (Meyers et al., 2010). When looking for low cost ways to improve heating and cooling efficiency, control systems like programmable thermostats are a clear option to consider.

2.2.3.2 Delivery Systems

The efficiency of how heat is transferred from the source throughout the building is very important to consider when working to reduce carbon emissions. The Carbon trust breaks down these methods of transfer into wet systems, warm air systems, and radiant systems (Carbon Trust, 2010b). Wet systems include hot water radiators, which are one of the most common methods of distribution (Carbon Trust, 2010b; United States Department of Energy, 2011a). Utilizing zone heating is a good way to maximize the efficiency of hot water radiators. Warm air systems use ducts to transfer heated air from the source throughout the building (Carbon Trust, 2010b). It is important to make sure the ducts are well sealed, so that they do not lose heat into non-heated areas. Keeping the duct registers clear of both dust and nearby furniture is also

important to its operation (United States Department of Energy, 2010f). Radiant systems make use of infrared radiation to generate heat in lieu of heated water or air (Carbon Trust, 2010b). These systems are the most energy efficient of the three, although they are not as widely used. Heat is most often transferred through the floor into the room, because of this some floor coverings, such as carpeting, are not recommended with floor radiators. Wall and ceiling-mounted panels can also be used for radiant heating, but they are more expensive to operate. Because it is reasonable to assume that the New Horizon Center does not have radiant heating, and installation costs will be high, it is unlikely that it will be a feasible recommendation as an energy saving measure. Still, it may be useful to keep it in mind as an option.

2.2.4 Smart Metering

A useful tool that can help manage energy use is the smart meter. Smart meters are electrical, gas, or water meters that automatically take readings and store the data. These can often be linked directly to the electrical provider so that it does not have to be manually read. They will often have added features that can give the owner a more in depth analysis of their energy consumption than their typical energy bill would provide to them. This will provide an opportunity to better understand their energy usage and find ways to reduce it. These meters can shed light on peak usage times so businesses can target them with cutback efforts. In a study done by the Carbon Trust it was found that "SMEs using advanced metering can identify an average of 12% carbon savings and implement an average of 5% carbon savings" (Carbon Trust, 2007). A potential drawback is that smart meters are more expensive and more complicated than standard meters. Therefore, a company would want to perform a cost benefit analysis before buying and installing smart meter(s) and determine if it justifiable for their particular case. There

is also the aspect of communication and technical problems for the meter itself. To overcome this aspect the utility must have the staff and expertise to troubleshoot and solve communication and other technical problems that may arise with smart meters.

2.2.5 Office Equipment

Office equipment is an integral part of any business, and it is also a contributing factor to its energy consumption. Figure 10 shows the percentage breakdown of the energy used by different types of office equipment. Computers account for a large portion of that breakdown. Computers are often left on 24 hours/day in many office environments, but turning them off at night and over the weekend will result in a 75% decrease in energy consumption (Carbon Trust, 2010a). Many computers also have energy saving features, which should be activated. In addition, monitors should be turned off if users are to be away from their desks for more than ten minutes (Carbon Trust, 2006). If a business is willing to make the investment, there are modern alternatives that will also help reduce energy consumption. Newer computers will be more energy efficient than their older counterparts. Laptops have been designed to be as energy efficient as possible, so they can be a great solution in some cases. In addition, flat screen monitors consume more than two-thirds less energy than older, standard monitors (Carbon Trust, 2006).

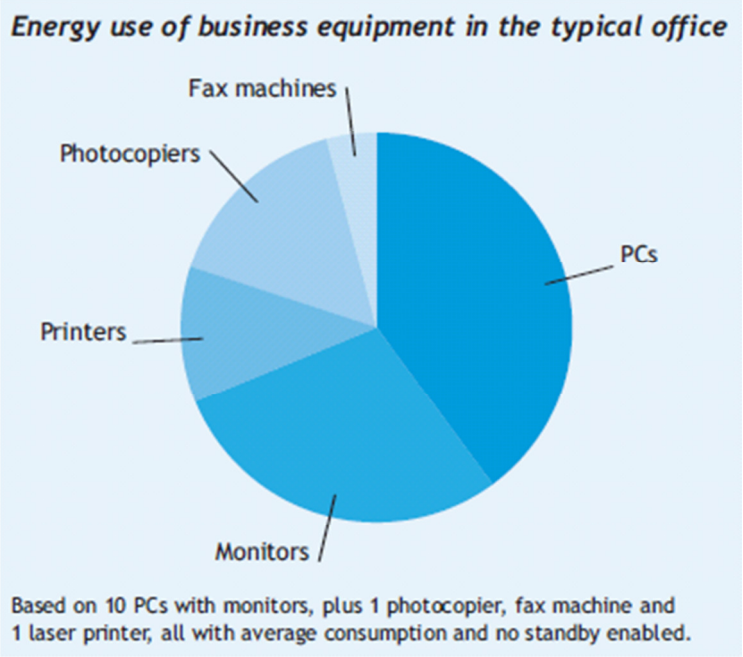

Figure 10: Energy Use of Business Equipment (Carbon Trust, 2006)

Printers, photocopiers, and fax machines also contribute to the energy consumption of an office space. Like computers, it is important that this equipment be turned off during non-business hours in order to cut down on wasted energy. Because these machines are used by a group of people, it is important to designate one person who is in charge of turning them off every day. Plug in timers are another, hands-free solution to making sure this equipment is turned off at the proper times (Carbon Trust, 2006). Because of the heat they produce, businesses should avoid having printers, photocopiers and fax machines in air conditioned rooms. If they are in air conditioned rooms, they should be located away from the thermostat, so its temperature reading of the room is not distorted (Carbon Trust, 2010a). As with computers, there are energy saving options a business can take with printers and photocopiers. Generally, the faster a machine prints or copies, the more energy it uses. Also, laser printers use much more

energy than inkjet printers. Even while in sleep mode, a laser printer can use up to twice the amount of energy of an inkjet printer that has similar specifications (Carbon Trust, 2010a).

2.3 Adoption Challenges

Although there is a wide variety of energy saving alternatives available to individuals and to businesses, some difficulty still remains in getting them to adopt these changes because it involves changing their behavior. Making people aware options available to them and the benefits they will experience is just part of the process of motivating change. People can also be motivated through different forms of incentives and feedback.

Inaction on the part of home and business owners with regards to energy efficiency is due to a variety of factors. The Carbon Trust cites the non-domestic building's 'circle of inertia' as the main factor in a lack of action on the part of businesses. This circle is caused by a lack of incentive for either the building industry or building tenants to change how they operate. Tenants tend not to take any action because they do not own the building, and so do not want to make any investments to change any part of its infrastructure. Building developers do not create more energy efficient buildings because they have no material incentive to, they do not pay the energy bills (Carbon Trust, 2009b). The continued rise of household's energy use is due to a variety of large and small scale factors. The larger factors are referred to as TEDIC factors, which include technological developments, economic growth, demographic growth, institutional factors, and cultural developments. These TEDIC factors influence smaller scale factors like personal motivations, abilities and opportunities (Abrahamse, Steg, Vlek, & Rothengatter, 2005).

It is important to keep TEDIC factors in mind when forming a plan to motivate homeowners to voluntarily change their habits.

In order to properly minimize the energy usage in the New Horizon Centre, the employees will have to pick up new, environmentally friendly habits. There are some barriers to employees adopting energy conserving habits in the workplace, including a lack of financial incentive and not knowing how much energy they are using and being able to compare that to previous periods. On the other hand, employees are easier and cheaper to target and keep track of (Carrico & Riemer, 2010). One method for getting employees to reduce energy use is through peer education. In this case, an employee would be charged with educating the others on new energy efficient practices. It would be easy for the educator to observe and offer advice on a daily basis in the workplace setting (Carrico & Riemer, 2010). Another method would be to provide periodic energy use feedback to the employees at the New Horizon Centre. It is believed that feedback is effective because it creates a relationship between a person's actions and a desired result (Carrico & Riemer, 2010). Carrico and Riemer's study found that peer education and periodic feedback are both effective methods of reducing energy use in the workplace, with a combination of both being most effective (2010). Given the small number of people the Commonside Trust employs and its motivations for reducing its carbon footprint, it may be most effective to recommend a combination of both of these methods. A peer educator would be able to inform the other employees and be an onsite contact to field any questions over time, while the feedback would provide the employees with a solid measure of their performance.

One the Commonside Trust's future goals is to influence its community in order to get it to reduce its energy consumption. For that reason, it will be useful to explore methods the Trust could employ to reach out to the community and reduce its carbon footprint. Overall, strategies

for influencing environmental behavior can be broken up into antecedent interventions and consequence interventions. Antecedent interventions include commitment, goal setting, information and modeling. Consequence interventions involve the use of feedback and rewards (Abrahamse et al., 2005). Of all of these methods, a combination of feedback and goal setting appears to be most effective (Abrahamse et al., 2005; Abrahamse, Steg, Vlek, & Rothengatter, 2007). In that case, a goal would be set for a household (eg. A 5% reduction in energy use), and then the household would receive periodic feedback as it tried to meet this goal. As the frequency of the feedback increases, so does its effectiveness (Abrahamse et al., 2005; Abrahamse et al., 2007). Although utilizing feedback could definitely aid the Trust is reaching its goals, it may be too tall a task for the trust to provide feedback for its entire community. In that case, education coupled with goal setting is another effective method which could be a more feasible strategy (Abrahamse et al., 2005). The Trust could educate the community on energy saving practices by using pamphlets or newspaper articles, which would be easier than collecting all of the information required to provide feedback to community households. In any event, there is a variety of options available to the Commonside Trust to reach out and influence the energy usage of the community.

3 Methodology

Like many non-profits, the Commonside Community Development Trust is facing significant budget challenges due to the state of the economy. Because of this, the Trust is searching for ways to save money and make a positive impact on the environment without compromising its impact on the community. The team performed an in depth energy audit of their building, the New Horizon Centre, and recommend energy saving options that will cut down on costs and carbon emissions. To be assured that the team performed the best possible audit, their first objective was to identify the state-of-the-art auditing practices in the UK. Once that was accomplished, the team proceeded on to the next objective, which was performing the energy audit itself. With the results of the audit, the team was able to recommend changes that will increase the energy efficiency of the building while reducing the costs of its operation. The sponsor was also interested in community opinion on the way the building is operated. To satisfy that objective, the team conducted a survey of the patrons of the New Horizon Centre.

3.1 Energy Audit

The energy audit portion of this project evaluated the current state of energy efficiency in the New Horizon Centre, which houses the Commonside Community Development Trust. This was later used as the basis upon which recommendations to improve energy efficiency were made. There are different methods that can be used to complete an energy audit, which is why research was needed to determine the most acceptable auditing practices. Once the best auditing practices were determined the auditing procedure began.

3.1.1 Characterizing Best Auditing Practices

Once the team arrived in the UK, the first objective was to identify the most effective energy auditing practices in the UK. This research built on that of our literature review, using materials in the UK that the team had not yet been able to obtain. The team also interviewed other personnel in the UK who were able to recommend the best ways to go about the audit. The popular techniques used in the United States have been established and interviews with professional auditors have been performed. A member of the team shadowed a professional audit the week before leaving for this project to get some hands-on training in the practices used in the United States, which will most likely be similar to those used in the United Kingdom.

3.1.2 Performing Energy Audit

An energy audit was performed to determine possible energy losses in the New Horizon Centre. These losses were then the basis of recommendations on improving the energy efficiency of the building. There were specific steps that need to be accomplished to complete a successful level III audit. They are:

- Preparatory Work
- Data Collection
- Analysis

The specific details of completing these steps are outlined in the following sections.

3.1.2.1 Preparatory Work

The first step to our energy audit was characterizing the New Horizon Centre. This required attaining the building plans and energy bills for the past two years. Since the New Horizon Centre did not have an official building plan, the team created one. Once the plans were completed, the rooms of the building were numbered so they could be easily referenced in the energy checklists. These drawings were the building block for the walk-through portion of the audit and displayed where the major concerns for the building are. This also gave the team a square footage of heated/cooled area in the building that was used in later calculations for the Energy Use Index.

The data from the energy bills was analyzed in a manner that displays the changes in costs for each type of energy over time. To best visualize this analysis, the team graphed the amount of money spent on energy per month. Displaying the data in this fashion made it easier to see spikes in energy use. These spikes are the most likely places to save energy, so they were the initial focus of the auditing process. The team also kept in mind that there is natural seasonal curve that guides the plot as the heating and cooling seasons come and go. Another useful data arrangement was to create a pie chart displaying the percentage of each type of energy the building is using. The different types of energy were traced to the actual use of that energy depending on the Centre's equipment.

There were also various changes associated with an energy bill that were taken into account such as cost adjustments, demand charges, and power factor charges. If the price of energy had greatly changed, that would have been seen in cost adjustments. This needed to be taken into account so that changes in cost did not impact the actual amount of power used in the efficiency plots and the same is true with demand charges. The New Horizon Centre was

unlikely to have high power factor charges because it does not have any large machinery that is inductive or capacitive, which draw reactive power.

After the building plans and energy bill data were obtained and organized, the Energy Use Index was calculated, which is measured in Btu per square feet per year. We used this index to compare the New Horizon Centre to other buildings of similar use to see if it is at an acceptable efficiency level. A graph of acceptable value ranges can be seen in Figure 11.

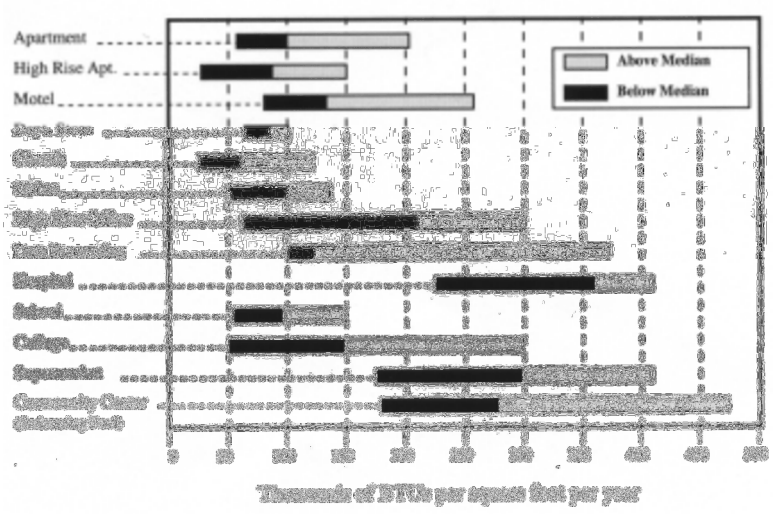

Figure 11: Energy Use Index Standards (Thurman et al., 2010)

The New Horizon Centre falls under both the category of "office" and "school" and was expected to be relatively low in energy consumption compared to most buildings. A spreadsheet was made in order to calculate this value, which takes in all the energy data from the bills for the past year per meter, converts each energy form to Btu's and sums them. This value was then divided by the square footage of the building. To obtain an accurate long term reading, we averaged several consecutive years together.

3.1.2.2 Data Collection

After the building was properly characterized, the physical walk-through audit was performed. There were checklists used for particular sections to ensure that energy information was not missed, these can be seen in Appendix B (Thurman et al., 2010).

Each one of these categories had its own checklist style sheet that was filled out during the walk-through audit. These checklists can be seen in Appendix B. They were combined and tailored to fit the New Horizon Centre's needs. Whenever the team encountered one of these categories during the walkthrough audit it was assigned a reference number which the team recorded on the simplified building plan. This provided a map to the problems on the checklists so they could be found quickly. These areas were then rated, based on a visual inspection, on the corresponding categorical checklist sheet. This rating was used as the prompt for further investigation after the walk-through inspection was completed. The end result was thirteen lists containing all the energy aspects of the building separated into their categories.

At this point, we had checklists which listed all possible energy losses in the building. We summed all ratings on the checklists and divided by the number of energy losses cataloged on the checklist, finding the average rating of that category and giving values to the problem areas of the building. We used this metric to further assess the current state of energy efficiency of the building and it also provided an organized list of all problem areas to base recommendations on. To perform a level III audit, much more investigation and quantification had to be performed in order to completely expose all energy losses.

3.1.2.2.1 In-Depth Analysis

One of the areas that required a more in depth investigation was the building envelope. The team used a few useful tests to further analyze this aspect of the Centre. The main causes of losses associated with the building envelope are drafts and poor insulation. A chemical smoke kit was used for identifying drafts. This is a piece of equipment that uses vapor that is sprayed and allows the user to see the airflow. Originally, this would be done with a chemical smoke, which is where it got the name from, but the vapor is now used to the toxic properties of the chemical smoke (Doty & Turner, 2006). Often blower door tests are used as well, which increases the rate of flow of drafts to make them more obvious. The team was unable to obtain a proper blower door for this project due to high rental fees.

To determine the integrity of insulation an infrared thermal imaging is often used. This will shows the temperature gradient along any surface and will therefore display where the insulation is bad. If a thermal camera is not available, an infrared point scan can be used. This will make use of an infrared thermometer and points along the surface will be measured to determine the temperature gradient. In the case of the New Horizon Centre, the insulation was purely brick, so infrared imaging was not necessary.

Electrical components were also investigated into further. The major concerns for this loss were lighting and electronics use. Lighting can often be turned to a lower level. To evaluate if lighting is at a proper level, lumen readings in all rooms were taken at different times of the day and compared to OSHA standard 1926.56, which is an American standard that gives acceptable light levels for the work environment but is an internationally accepted standard. However, it is understood that the lighting levels at the New Horizon Centre may be higher due to the presence of elderly. This type of investigation often leads to one of two popular

suggestions. For components that do not have built in power settings an option is installing smart power strips that can automatically turn off this component when not in use and turn it back on before it is usually needed. For components that do have power settings, the settings are often changed to be stricter.

During the walk-through audit, all energy control devices were inspected. These were usually devices that control heating and cooling. These controls were marked down on the building plan and the make, model, and settings should be recorded. Installing controllers that have timers are often an effective way to increase efficiency. These timers can be set to turn down the heating/cooling systems near the end of the work day and turn them back up before the workday begins. These controls should also not be in a position where people can access them easily. Often employees will adjust the heating/cooling to their liking without much regard for the implications.

3.1.2.2.2 Employee Survey

To further analyze potential carbon reduction at the New Horizon Centre the team surveyed the employees. This survey sought to characterize the employees' daily habits which have an effect on their use of energy. These surveys investigated if they turn the lights off when no one is in a room, if the computers are shut off at the end of the day, and other energy related habits. The survey was a face to face questionnaire covering all different types of employees from manager to janitor asking questions that apply to their job description. (See Appendix C for survey questions). The team used the results of the survey to recommend habitual changes that need to be made in order to further lessen the carbon impact of the New Horizon Centre.

3.1.2.3 Post Analysis

Once the team analyzed the state of energy use at the New Horizon Centre, the team developed a plan in order to make improvements. To start creating this plan, the team first had to identify all of the carbon reducing options available. Some of these options have already been discussed previously in this document. When the team arrived in the UK it was important that the team continue to seek out more alternatives in literature and searching for local sources of information. Talking to the right experts in the London area revealed useful insight into local carbon reducing practices. In addition, those local experts offered some advice on where to receive outside funding for changes that the team recommends later in this report.

The final part of the audit was to assess applicable incentives for having an energy efficient building. Since the Commonside Community Trust is a nonprofit organization, it is important that the team can not only justify the changes outlined in this report but show that they can be completed practically. Often, the changes will not be practical if the Trust has to pay for the entire project itself. This is why grants and 0% interest loans can be used to cut back on the payback period. A list of grants that the Trust is eligible for can be seen in the background chapter of this report.

3.2 Surveys

The Commonside Trust is also interested in the community's opinion on the way the New Horizon Centre is operated. To determine these opinions, the team has conducted a survey of residents who take advantage of the programs offered at the New Horizon Centre and local

figures involved with the Commonside Trust. The goal of surveying these patrons was to investigate their opinions regarding how the Trust is attempting to reduce their energy usage. The survey also aimed to discover if there were any alterations the participant thought the Commonside Trust should consider.

3.2.1 Patron Survey

To further expand on our knowledge of community opinion, the team conducted face to face surveys along with paper surveys with the same questions, which was easier to distribute at night when the team was not present. The main target group of the surveys were the patrons of the New Horizon Centre. The team investigated questions that explored their knowledge of energy saving techniques and ideas they may have for the New Horizon Centre (see Appendix C). During the day the team conducted the surveys face to face, but it became apparent that a lot of people are also around the Centre at night. In order to involve the people who attend programs at the Centre at night, we left a paper survey at the main entrance that they could fill out. The team also asked the night staff to promote our survey, which he was pleased to do. The results of this survey were then used to evaluate opinion on the operation of the New Horizon Centre.

3.2.2 Interviews

In order to get the most up to date information with regards to available funding, the team had to get in contact with members of the Merton Council as well as heads of other local groups. The initial contacts were recommended to us by the sponsor. During these initial interviews, the

team was often referred to another individual. These individuals would be contacted as well. However, in time, it was found that most of these contacts would refer the team back to individuals whom had already been interviewed. Fortunately, enough information was gathered to provide funding opportunities for the recommendations outlined in this report.

4 Results and Recommendations

This chapter will discuss the findings of this project that are the basis of the recommendations. The analysis protocol of these results will be described in this section as well to help justify any recommendations made. This chapter is designed to be used as a launch pad to guide the reader though the protocol of improving the energy efficiency of the New Horizon Centre and attaining funding when possible.

4.1 Recommendations Requiring Investment

This section outlines the recommendations that require a significant amount of investment. These recommendations will typically have a larger impact on the annual energy savings and less to do with community involvement. However, the savings from these recommendations can be used to create new or provide supplementary financing for community programs. Grants and zero percent interest loans are also discussed in an effort to have these programs financed and cut back on the investment required by the Commonside Community Development Trust.

Lighting

During the walk through audit, it was found that all lights in the New Horizon Centre were fluorescent. As discussed in the background of this report, these lights are more efficient than incandescent bulbs, but are not the most efficient. Therefore, changing to LED lights will save the New Horizon Centre energy and consequently money on their electrical bills. It was found that there are 138 eighteen watt and 69 fifty-five watt fluorescent tubes. To find the annual cost

of lighting currently installed in the New Horizon Centre, the following logic was followed, seen in Figure 12.

$$Cuurent\ Power\ Consumption\ per\ Hour = (138 * 18\ Watts) + (69 * 55\ Watts)$$
$$= 6304\ Watts = 6.304\ kW$$

$$Current\ Annual\ Power\ Consuption = 6.304\ kW * 10\ hours\ per\ day * 352\ days\ per\ year$$
$$= 22190.08\ kWh$$

$$Current\ Annual\ Lighting\ Expenditure = 22190.08\ kWh * 0.07 \frac{Pounds}{kWh}$$
$$= 1553.31\ Pounds$$

Figure 12: Current Annual Lighting Expenditure Calculation

To calculate the speculative cost of changing these lights to energy efficient LED lighting the same logic was followed. However, in this case, the eighteen watt bulbs now only consume seven watts and the fifty-five watt bulbs only consume fourteen watts. This logic can be seen below in Figure 13.

$$Speculative\ Power\ Consupmption\ per\ Hour = (138 * 7\ Watts) + (69 * 14\ Watts)$$

$$= 1932\ Watts = 1.932\ kW$$

$$Speculative\ Annual\ Power\ Consuption$$

$$= 1.932\ kW * 10\ \not{h}ours\ per\ day * 352\ days\ per\ year = 6800.64\ kW\not{h}$$

$$Speculative\ Annual\ Lig\not{h}ting\ Expenditure = 6800.64\ kW\not{h} * 0.07\ \frac{Pounds}{kW\not{h}}$$

$$= 476.05\ Pounds$$

Figure 13: Speculative Annual Lighting Expenditure

This breakdown shows that the New Horizon Centre can save approximately 1077.26 Pounds per year, or 69.35% per year on their lighting systems. These calculations can be seen in Figure 14.

$$Speculative\ Savings = Current\ Spending - Speculatve\ Spending$$

$$= 1553.31\ Pounds - \ 476.05\ Pounds = 1077.26\ Pounds$$

$$Percentage\ Savings = \frac{Speculative\ Savings}{Current\ Cost} * 100 = \frac{1077.26}{1553.31} * 100 = 69.35\%$$

Figure 14: Lighting Savings Calculations

These prices and watt ratings are based upon the pricing guide Net LED Lighting (Net LED Lighting 2011 Discounted Price List, 2011) which can be seen in Appendix E. However, there will be an initial investment to change the light bulbs over to high efficiency LED bulbs. This is calculated below in Figure 15.

$$Investment\ in\ Pounds = (138\ Bulbs * 13.88\ Pounds) + (69\ Bulbs * 26.66)$$
$$= 3754.98\ Pounds\ Investment$$

$$Payback = \frac{Cost}{Savings\ per\ Year} = \frac{3754.98\ Pounds}{1077.26\ Pounds\ per\ Year} = 3.49\ Year\ Pay\ Back$$

Figure 15: Lighting Payback Calculations

Since this initial investment is high, this would be one of the areas that would be practical for the use of a grant. The grant that fits this particular project the most is the SITA Fast Track Fund (SITA) (SITA).

Photovoltaic Arrays

The New Horizon Centre is located in an area which is favorable to a photovoltaic (PV) array. It is in a large clearing, with very little shade cast on its roof. There is also a sufficient

amount of space on the roof for the panels to be oriented facing south. That being said, an array large enough to meet the electricity needs of the New Horizon Centre is likely too large and too costly to be feasible. Therefore, it would be unreasonable to include batteries as part of the array's cost. The PV array would help power the Centre during the day, cutting down on the amount of energy that would have to be purchased from a power company. If the array were to produce more electricity than demanded by the building, or if it produced extra power on weekends or holidays, the electricity could be sold back to the grid for a profit. Along with the power benefits, a PV array would also send a strong message to the community that the Commonside Trust is serious about its environmental impact.

There are many calculators and models available for determining the size of PV systems. The team utilized the software "PVsyst" evaluator for our purposes. Per our research, the panels were set to a tilt of 30° facing directly south. For the London area, the simulator estimated the average solar energy over the year to be 2.9 $kWh/m^2/day$. On a monthly basis, the summer months yielded much more energy than the winter ones, which is to be expected. These estimates can be seen in Figure 12.

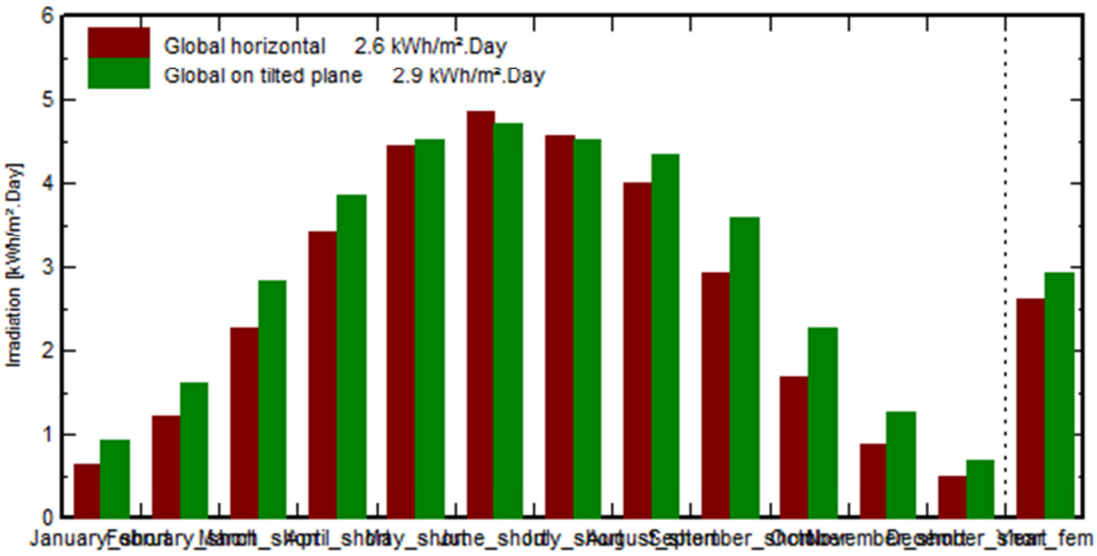

Figure 16: Solar Irradiation by Month

At an initial nominal power of 4.4 kW, the program estimates a cost of 26830 Pounds. This initial cost is evaluated further while moving through the modeling process.

In the next step of the modeling process, actual PV panels are chosen to apply specific data in the model. The team chose BP solar panels because they are available in the UK and have an appropriate size for the New Horizon Centre. It would take 20 BP 3220N panels to provide the planned power of 4.4 kWp, which would take up an area of 33 m^2. As shown in Figure 13 system like this would provide an average of 2.32 kWh/kWp/day. Clearly, the monthly averages differ between winter and summer months. To get the total estimated kWh produced by the system, one needs to just multiply the average kWh/kWp/day by the size of the system in kWp and the number of days in a year. From that, the money saved per year can be calculated by multiplying the total amount of kWh by the price per kWh. To get a rough estimate for payback, divide the cost of the system by the money saved.

Wind and Sun, a renewable technology distributer in the UK, sells twenty BP 3220N panels for £11400 including VAT (Wind & Sun Ltd, 2010). Coupled with the assumption that the cost of the panels will be half of the total cost of the system, the total cost can be estimated to be 22800, less than the program initially calculated. That system would produce an estimated 3726 kWh in a year. At £0.09 per kWh, that would amount to a savings of £261. This would make the payback period for the array 87 years.

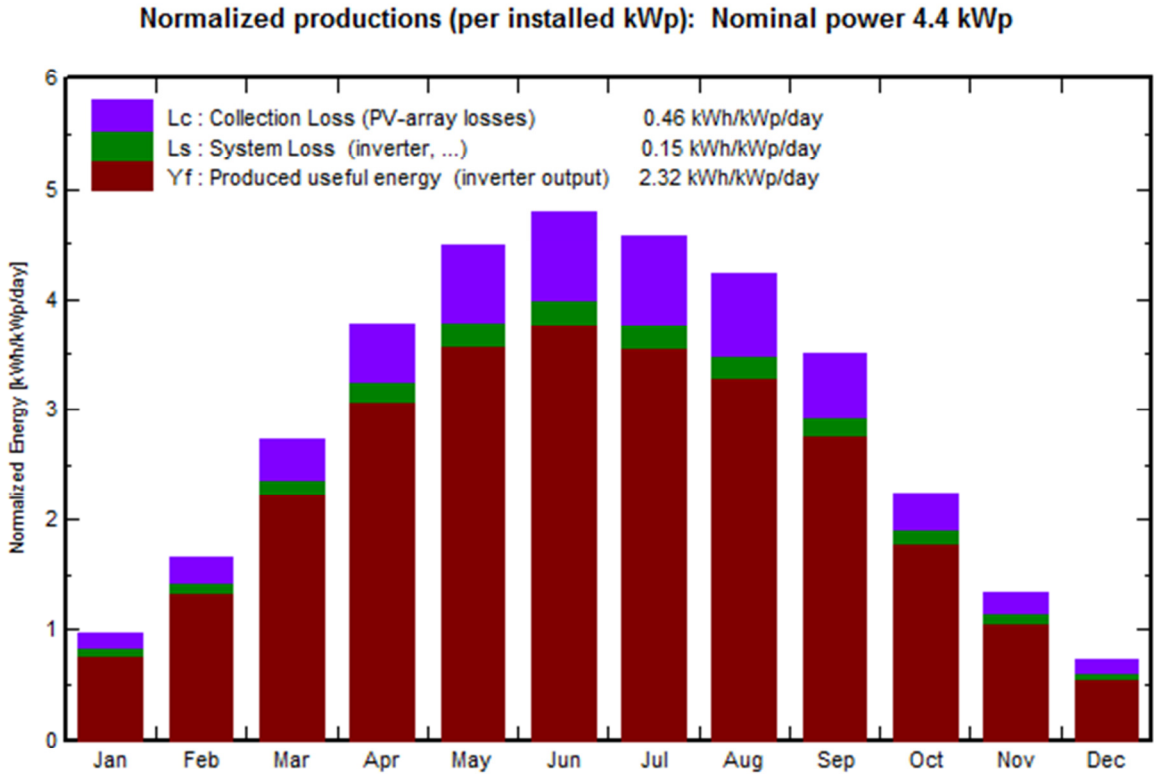

Figure 17: Energy Produced by Month

Boilers

The heat in the New Horizon Center is distributed into the rooms via forced hot water throughout the entire building. There are four boilers that are responsible for the heating of the

water. The efficiency of a boiler can be calculated with the following equation, seen in Figure 18.

$$\%E = \frac{Heat\ out\ of\ Bioler}{Heat\ supplied\ to\ Boiler} * 100 = \frac{41.0}{52.6} * 100 = 77.95\%$$

Figure 18: Boiler Efficiency Calculation

Both of these specifications can be found on the boiler nameplate. Boilers are classified by different "bands" by SEDBUK (Seasonal Efficiency of Domestic Boilers in the UK), which is a comprehensive boiler efficiency database. They maintain a comprehensive list of the boilers manufactured in the United Kingdom. The bands are A-G, "G" being the worst and "A" being the best. A table classifying the efficiencies of each band is outlined in Table 2, seen below.

Band	Efficiency
Band A	90% and above
Band B	86% - 90%
Band C	82% - 86%
Band D	78% - 82%
Band E	74% - 78%
Band F	70% - 74%
Band G	Below 70%

Table 2: SEDBUK Band Ratings

It can be seen that the boilers in the New Horizon Centre are in "Band E," which leaves significant room for improvement. Since this is an older boiler that has not been maintained since 1997, there is reason to believe that it is not running at peak efficiency. Therefore, this efficiency will be used as a conservative estimate.

An example of a boiler that could replace the current equipment at the New Horizon Center is the Ideal Mexico HE Standing Boiler. These are priced at £2,035.36, including VAT (CheapBoilers.com, 2010). This is an A band rated boiler by SEDBUK and is at 90.70% efficiency (Ideal Heating, 2011), which will yield a 12.75% increase in efficiency.

Since gas is only used in the hot water boiler in the New Horizon Centre, it is logical to take 12.75% of the annual energy used from gas to estimate the savings that these boilers would yield. To calculate the annual saving in pounds the logic seen in Figure 19.

$$Annual\ Savings\ in\ kWh = (Current\ Annual\ kWh\ Gas\ Usage)(Efficiency\ Increase)$$

$$= (467{,}950.83\ kWh)(.1275) = 59{,}663.73\ kWh$$

$$Annual\ Savings\ in\ Pounds = (Annual\ Savings\ in\ kWh)(Price\ of\ Gas\ per\ kWh)$$

$$= (59{,}663.73\ kWh)\left(\frac{£0.025}{kWh}\right) = £1491.59\ Saved$$

Figure 19: Annual Boiler Savings Calculation

This logic can be followed with any boiler. It will be likely that the exact model of the boiler changes when a price quote is attained. Many licensed installers can get promotional deals on certain equipment that may be more worthwhile. That being said, there will be an installation fee. Staff of the Commonside Community Centre have informed the team that in previous years an installation quote of approximately 4,500 Pounds was received. Using this figure, an estimated payback has been calculated in Figure 20.

$$Payback = \frac{Initial\ Investment}{Yearly\ Savings} = \frac{Price\ of\ Boiler(s) + Price\ of\ Installation}{Yearly\ Savings}$$

$$= \frac{(£2{,}035.36 * 4) + £4500}{£1491.59} = 8.475\ Years$$

Figure 20: Boiler Payback Calculation

Similarly, the payback can be calculated with any price quote attained for installation and boiler pricing, simply put them into the equations seen in Figures 19 and 20.

Roof Insulation

It has been brought to the team's attention that a portion of the New Horizon Centre's roof is completely absent of insulation. The space that needs insulation is the new addition to the building behind the great hall. This area is approximately eleven by twenty six feet. This area must be insulated and should be done so within the specification of Building Regulation L2A. Values for the U-value, which is the measure of insulation effectiveness, can be seen in Table 3.

Element	Area-weighted average	For any individual element
Wall	0.35 W/m^{2}K	0.70 W/m^{2}K
Floor	0.25 W/m^{2}K	0.70 W/m^{2}K
Roof	0.25 W/m^{2}K	0.35 W/m^{2}K
Windows	2.25 W/m^{2}K	3.3 W/m^{2}K
Pedestrian Doors	1.5 W/m^{2}K	3.0 W/m^{2}K
High usage entrance doors	6.0 W/m^{2}K	6.0 W/m^{2}K
Roof ventilators	6.0 W/m^{2}K	6.0 W/m^{2}K

Table 3: Building Regulations U-Values (Regulation L2A)

The team suggests the use of foam board insulation made of polystyrene, polyisocyanurate, or polyurethane. The more practical options for this project are molded expanded polystyrene foam board and polyisocyanurate and polyurethane foam board due to their high R-values and solid construction. According to staff at the Commonside Community Development Trust, this method was used for the rest of the roof of the New Horizon Centre. As part of the current agreement between the Merton Council and the Trust, the building envelope is the responsibility of the Council.

It is difficult to quantify the amount of energy being lost in this particular area. However, since this causes the back end of the building to be so cold that the staff prefers to use electric space heaters in the area, it is reasonable to assume that heating the area is an issue. Electric space heaters are considered to be 100% efficient because there is no loss in tubing. However, producing heat by electric is much more costly than producing it by larger boilers (United States Department of Energy, 2011c). The main concern of the team is that the heat is being produced more than twice as much to keep the room at an acceptable temperature. Therefore, it is imperative that insulation be installed to retain heat in this area. Grants that may be used for this project include Santander Foundation Grant and Awards For All.

4.2 Recommendations with Little Investment

This section is dedicated to the quicker, easier, and more economical recommendations to implement in the New Horizon Centre. These can most likely be completed by a member of the staff and may be purely habitual changes or simply posting energy education material. Addressing all the minor recommendations will provide a significant change in the New Horizon Centre with respect to energy savings and community outreach.

Energy Efficiency Class

Although it was found in the patron survey that the majority of patrons have some energy efficiency knowledge, more detailed education can be done. The team suggests a fifteen to thirty minute class to teach the patrons of the New Horizon Centre how to save money in their own homes by being more energy efficient. A syllabus of the key points to be covered has been prepared.

Key Energy Points

- Habits to change
    - Leaving on a single light during the day can cost a little less than 20 Pounds per year

        - (12 hours/day)(365 days/year)(60 Watt bulb) = (262.8 kWh)(.07 Pounds/kWh) = 18.40 Pounds
    - Take shorter showers to save heated water
    - Make sure radiators are not obstructed
    - Do not leave computers, TVs, etc. on when not in use
        - The average idle computer consumes about 0.082 kWh
        - If left on 24/7 it consumes approximately 1.968 kWh per day
        - If left on all year it consumes 47.232 kWh per year
        - With the average rate of electricity at 0.07 Pounds the computer will cost 33.07 Pounds
        - These costs can trickle and compound if TVs and computers are left on
    - Keep your refrigerator in a cool part of the house, if possible
    - Use the low temperature setting for washing cloths
        - Make sure to have full loads before doing the wash
        - Hang cloths to dry them when possible
            - Use a hanging rod instead of a radiator so you do not block the radiator
    - Invest in a dishwasher if possible, they use less water than if done by hand
    - Use lids when cooking so head does not escape as easily
    - Set the boiler to 60 degrees centigrade
    - Close curtains at dusk to help prevent heat from escaping
- Heating
    - Lower heat by 1 degree Celsius can save approximately 8% on your heating bill

    - Use a seven day timer for heating, if possible
        - Have it set to turn off before you leave the house for the day and come on about a half hour before you come home
        - Turn the heat down before going to bed
- Lighting
    - LED lights are usually more than 85% more efficient than florescent
        - When a light burns out, replace it with an LED equivalent
- Energy Suppliers
    - Compare suppliers, they can be very different in price
    - Check availability for incentives or special deals
        - Once the deal ends, check for another one and keep track of when it ends so a new one can be applied for when it expires

As one can see from the syllabus, this class details specifically how much money can be saved from most energy efficiency habits to put this information into a practical sense for the students. From the team's experience on the Moat Bus, which toured the local community, the public is interested in saving money through energy efficiency. There were some that had actually begun to make use of energy harvesting technology. Therefore, it can be seen that energy efficiency is on the mind of the local community and there is reason to believe that this program will be attended. Similarly, in educating the community, energy will be reduced, which will serve to lower the carbon footprint of the community on the whole.

Energy Efficiency Literature

In addition to offering a class, energy efficiency literature can be posted to reach out to people that do not wish to attend a class or have time conflicts. The team suggests two different methods of distributing energy efficiency literature. The first method would be to hang energy efficiency educational posters in various high traffic locations throughout the New Horizon Centre. The second method would be to place brochures with similar, more in depth, information on accessible tables for patrons to take home with them. The team has noticed that the Trust uses these methods to promote their activities, so it is reasonable to assume that these are appropriate approaches. The complete design of both of these options have been completed by the team and can be seen in Appendix F and have also been sent to staff of the Commonside Community Development Trust directly. Therefore, there will be a minimal amount of time and maintenance necessary for full implementation of this recommendation.

Room Usage Posters

One of the main sources of income for the New Horizon Centre is the rental of rooms for use by various local groups. However, the team was informed that not all rooms were used in an energy efficient manner when rented from the Commonside Community Development Trust. Ideas that were discussed included additional charges or incentives to those groups who did not use the room efficiently. The argument of additional charges is justified due to the extra fees encountered by the Trust as is the argument of incentives due to fees avoided by the Trust. Unacceptable usage can range from leaving the lights on when leaving, turning on the lights when there is ample sunlight, opening the windows while the heat is on instead of turning off

radiators, and many more. Therefore, there must be guidelines that are clear the party renting the room in order for them to be expected to follow them. The poster prepared by the team, which can be seen in Appendix G, has the main points seen below.

- Turn off all the lights when leaving the room
- Only turn on lights when/if needed
- Use sunlight whenever possible
- On hot days, turn the valve on each individual radiator to zero
- If you are the last to use the room for the night turn the valve on each individual radiator to zero
- If the radiators are on, keep all doors and windows closed

These are not difficult guidelines to follow and are fairly obvious in some cases. This would require a staff member at the New Horizon Centre to check in on customers to ensure that the energy guidelines are being followed. Having these rules clearly stated will provide the Trust the opportunity to easily call attention to the rules that are not being followed. This may also serve to remind and possibly educate those whom are not accustomed to energy efficient habits. The full poster has been completed by the team and can be found in Appendix G as well as being sent to Commonside Community Development Trust staff. Therefore, there will be a minimal amount of time and maintenance necessary for full implementation of this recommendation. These posters could also be worthwhile in employee offices for those employees that may tend to forget to practice energy efficient habits.

Weather Stripping

During the walk through portion of the energy audit, it was noticed that some doors had large spaces where air could pass through from outside easily. This can be fixed fairly inexpensively by applying weather stripping to problem areas. Table 4, seen below, outlines the available options of weather stripping that may be used.

Common Weather Stripping

Weather stripping	Best Uses	Cost	Advantages	Disadvantages
Tension seal*:* Self-stick plastic (vinyl) folded along length in a V-shape or a springy bronze strip (also copper, aluminum, and stainless steel) shaped to bridge a gap. The shape of the material creates a seal by pressing against the sides of a crack to block drafts.	Inside the track of a double-hung or sliding window, top and sides of door.	Moderate; varies with material used.	Durable. Invisible when in place. Very effective. Vinyl is fairly easy to install. Look of bronze works well for older homes.	Surfaces must be flat and smooth for vinyl. Can be difficult to install, as corners must be snug. Bronze must be nailed in place (every three inches or so) so as not to bend or wrinkle. Can increase resistance in opening/closing doors or windows. Self-adhesive vinyl available. Some manufacturers include extra strip for door striker plate.
Felt: Plain or reinforced with a flexible metal strip; sold in rolls. Must be stapled, glued, or tacked into place. Seals best if staples are parallel to length of the strip.	Around a door or window (reinforced felt); fitted into a door jamb so the door presses against it.	Low	Easy to install, inexpensive.	Low durability; least effective preventing airflow. Do not use where exposed to moisture or where there is friction or abrasion. All-wool felt is more durable and more expensive. Very visible.
Reinforced foam: Closed-cell foam attached to wood or metal strips.	Door or window stops; bottom or top of window sash; bottom of door.	Moderately low	Closed-cell foam an effective sealer; scored well in wind tests. Rigid.	Can be difficult to install; must be sawed, nailed, and painted. Very visible. Manufacturing process produces greenhouse gas emissions.
Tape: Nonporous, closed-cell foam, open-cell foam, or EDPM (Ethylene Propylene Diene Monomer) rubber.	Top and bottom of window sash; door frames; attic hatches and inoperable windows. Good for blocking corners and irregular cracks.	Low	Extremely easy to install. Works well when compressed. Inexpensive. Can be reinforced with staples.	Durability varies with material used, but not especially high for all; use where little wear is expected; visible.
Rolled or reinforced vinyl: Pliable or rigid strip gasket (attached to wood or metal strips.)	Door or window stops; top or bottom of window sash; bottom of a	Low to moderate.	Easy installation. Low to moderate cost. Self-adhesive on pliable vinyl may not adhere to metal; some types	Visible.

	door (rigid strip only).		of rigid strip gaskets provide slot holes to adjust height, increasing durability. Comes in varying colors to help with visibility.	
Door sweep: Aluminum or stainless steel with brush of plastic, vinyl, sponge, or felt.	Bottom of interior side of in-swinging door; bottom of exterior side of exterior-swinging door.	Moderate to high.	Relatively easy to install; many types are adjustable for uneven threshold. Automatically retracting seeps also available, which reduce drag on carpet and increase durability.	Visible. Can drag on carpet. Automatic sweeps are more expensive and can require a small pause once door is unlatched before retracting.
Magnetic: Works similarly to refrigerator gaskets.	Top and sides of doors, double-hung and sliding window channels.	High	Very effective air sealer.	
Tubular rubber and vinyl: Vinyl or sponge rubber tubes with a flange along length to staple or tack into place. Door or window presses against them to form a seal.	Around a door.	Moderate to high.	Effective air barrier.	Self-stick versions challenging to install.
Reinforced silicone: Tubular gasket attached to a metal strip that resembles reinforced tubular vinyl	On a doorjamb or a window stop.	Moderate to high.	Seals well.	Installation can be tricky. Hacksaw required to cut metal; butting corners pose a challenge.
Door shoe: Aluminum face attachment with vinyl C-shaped insert to protect under the door.	To seal space beneath door.	Moderate to high.	On the exterior, product sheds rain. Durable. Can be used with uneven opening. Some door shoes have replaceable vinyl inserts.	Fairly expensive; installation moderately difficult. Door bottom planning possibly required.
Bulb threshold: Vinyl and aluminum	Door thresholds	Moderate to high.	Combination threshold and weather strip; available in different heights.	Wears from foot traffic; relatively expensive.
"Frost-brake" threshold: Aluminum or other metal on exterior, wood on interior, with door-bottom seam and vinyl threshold replacement.	To seal beneath a door.	Moderate to high.	The use of different materials means less cold transfer. Effective.	Moderately difficult to install, involves threshold replacement.
Fin seal: Pile weather strip with plastic Mylar fin centered in pile.	For aluminum sliding windows and sliding glass doors.	Moderate to high.	Very durable.	Can be difficult to install.
Interlocking metal channels: Enables sash to engage one another when closed	Around door perimeters.	High.	Exceptional weather seal.	Very difficult to install as alignment is critical. To be installed by a professional only.

Table 4: Weather Stripping Options (United States Department of Energy, 2011d)

The seven particularly bad cases of drafts are the doors in rooms R2, R5, R13, R17, R24, R26, and hallway H3. The room designations can be seen in the building plan created by the team seen below in Figure 21.

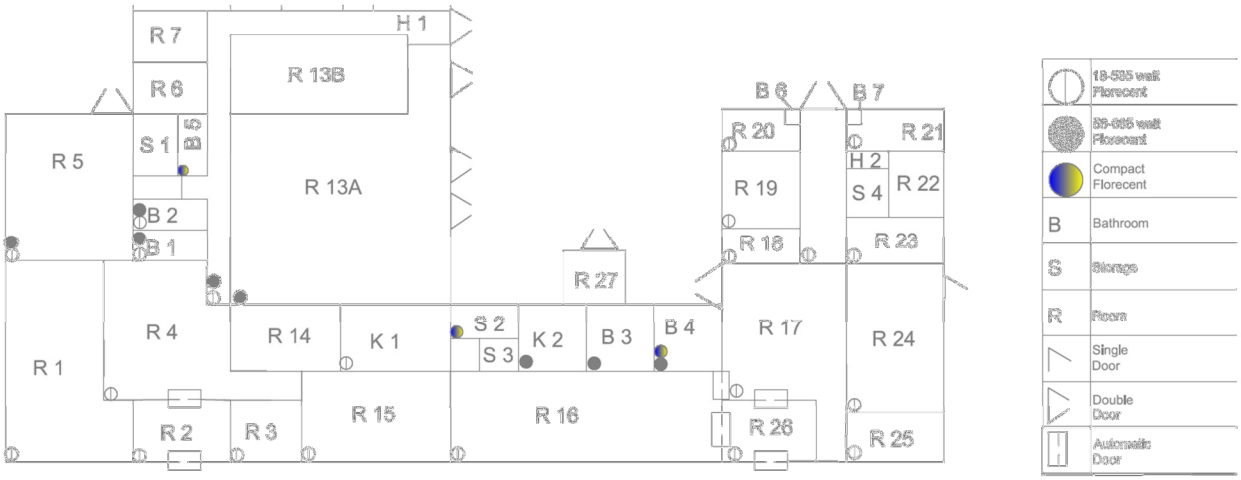

Figure 21: Building Plan

These doors, in particular, should be the first priority when applying weather stripping, but the other doors in the New Horizon Centre should also be resealed carefully. For each space to be weather sealed the appropriate sealant should be found in the table above by considering the surface that the seal will be applied to and if it is within the budget. Directions on how to apply each different seal will be included in the packaging when purchased. As a general rule of thumb, if a paper is closed in a door and it can be pulled out without tearing, then the door does not have a tight enough seal (United States Department of Energy, 2011d).

Heat Distribution

Heat distribution is the system that brings the heat from the source to the various radiators throughout the building. In the case of the New Horizon Centre, the heat distribution system is the distribution of forced hot water. The system is split into two zones because the building was, at one point, controlled by two separate groups. Both of these systems are controlled by seven day timers.

On a lower level scale, each radiator has a thermostat valve that can be adjusted by staff to independently control the amount of heat produced by that particular radiator. This is accomplished with small metal valves that cut off the intake of hot water while the radiator is at the desired temperature and begins to allow the forced hot water in again as the radiator cools back down. In further investigation, it was noted that all radiators were set to maximum. It was also noticed that some employees had personal electric heaters in their offices. If employees are cold enough to make use of personal heaters it indicates that there is a large temperature gradient throughout the building. This can be solved by adjusting these temperature control valves on a radiator to radiator basis. Guidelines for the different types of temperatures to use for the various rooms in the building can be seen in Table 5, shown below.

Type of Room	Occupied Hours	Unoccupied Hours
Offices and School Rooms	20°	13°
Corridors	17°	11°
Dead Storage Closets	10°	10°
Cafeterias	20°	10°
Mechanical Equipment Rooms	13°	10°
Occupied Storage and Gyms	13°	10°
Auditoriums	20°	10°
Computer Rooms	19°	As required
Lobbies	19°	10°
Toilet Rooms	19°	13°
Garages	Do not heat	Do not heat

Table 5: Suggested Temperatures (Thurmann and Younger, 2008)

In an effort to become more energy efficient, the temperature should be kept approximately at 20° C on average throughout the building. However, these temperature specifications must be adapted to the usages of the Commonside Community Development Trust due to the attendance of elderly, who may require slightly warmer temperatures than other patrons.

The seven day timer enables the Trust to control the timing of the heating system very accurately. These timers allow for the times for the system to be turned on and off daily for a full seven day cycle. This cycle is then repeated every week. Therefore, this can be a very effective tool to create a plan to turn the system on an off depending on the different activities that go on during the week. However, this is not always a user friendly process, so a robust time schedule and should be carefully implemented and revised as much as possible to reflect changes in season. If the seven day timer is set specifically and the temperature gradient problem throughout the building is fixed then the heating should turn itself off when not necessary as a function of the temperature. Likewise, it was noticed by the team that on fairly mild days the heat was still on even while the windows were open. This is a problem that would be eliminated by reducing the temperature at which the heat is required to turn on.

Windows

The windows that are currently in the New Horizon Centre are energy efficient gas filled cavity glass windows. They are made by N&C, a company who prides themselves on this

particular metric. They are very thick, double pane windows. There are options that are more proficient, but not enough to justify replacement.

One problem that can arise from an energy efficiency standpoint as it pertains to these windows is if they are not installed correctly or the sealant has deteriorated over time. This particular case was discovered during the chemical smoke examination in room R6 of the New Horizon Centre, where there was some air escaping out of the upper windows. The room designation can be seen below in Figure 20.

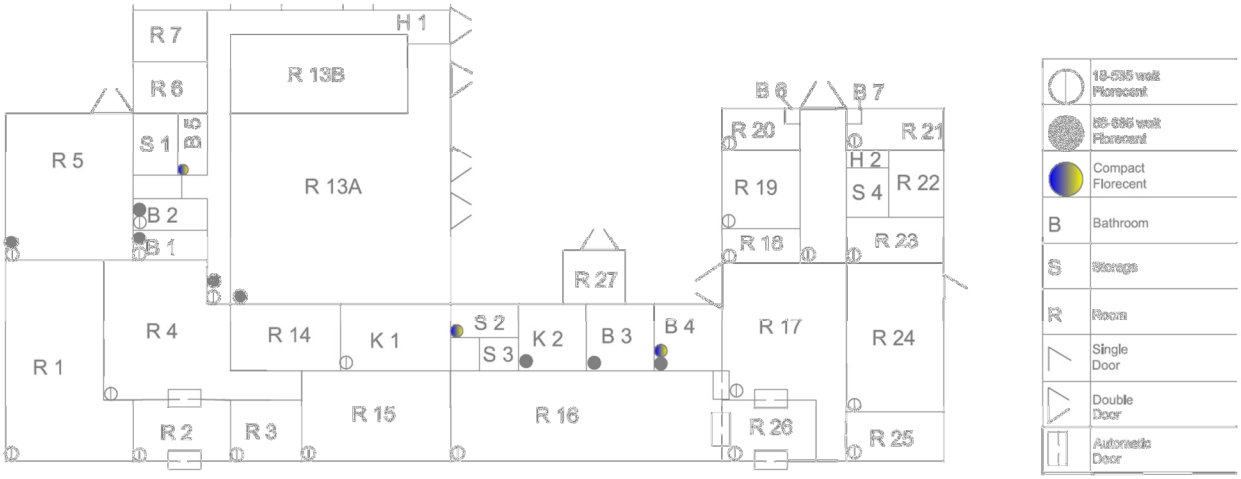

Figure 22: Building Plan

There were two other problems regarding the windows of the New Horizon Centre found by the team. The first problem was windows that do not close properly, which were found in the lavatory of the lunch club dining hall. The staff of the Commonside Community Development Trust is aware of the problem. The Trust has requested maintenance from the Merton Council, which is responsible for the window's upkeep. The other recommendation that the team suggests is to keep windows clean. It was noticed, particularly in the offices, that windows were

dirty. This dirt can cause lower light levels, which leads to employees turning lights on instead of using sunlight.

Employee Survey

The employee survey was performed in order to investigate energy related employee habits. This survey was completed as a face to face interview. An inspection was completed the night before the survey was implemented to also gain some insight into employee habits without having to find out in the form of questions where an employee may be tempted to give the socially accepted answer.

It was found that the caretaker was responsible for turning off all the lights at the end of the day. The team was happy to see that there was one person who is responsible for this task. However, certain employees do leave lights on in their rooms for the night cleaner and this is a habit that should be corrected. When most employees leave for the day it was found that they had turned off their computer and the lights in their office. There are, however, exceptions to this since some employees leave their computers on in order to gain access to them from home. Another note was that some lighting was left on during the day in sunny rooms. Lux readings were taken and the lighting from the sun alone was enough in all windowed rooms according to OSHA 1926.56. These lux readings can be seen in Appendix O. Although, the team realizes that this standard may be broken due to the hosting of elderly in the New Horizon Centre.

The team recommends that an official email/flyer be sent out encouraging employees and volunteers to turn their computers and lights off when they leave, unless it is a computer that is

used for remote connection, to have the night cleaner perform a walkthrough check to ensure that the heat is turned down and all lights are off, to verify that lights are off during the day in sunny rooms, and to wear a sweater or warm clothing in the winter if the building is a little cold. Again, the team realizes that the building may need to be heated extra due to the hosting of the elderly lunch club.

Patron Survey

This survey was completed to gain insight on what the New Horizon Centre patron's thoughts were on the programs offered and suggestions for them, what changes in opinion, aesthetically, having energy harvesting equipment on the building would cause, and what the level of energy efficiency awareness was. This survey was executed as both a face to face and with a paper survey, which both consisted of the same questions and can be seen in Appendix C.

Most responses were from patrons involved in one or two programs at the New Horizon Centre. The most popular programs were the lunch club and markets. Both of these activities are well attended and the patrons are content with the workings of the programs. Although, while touring the community on the community housing mobile office (Moat), it was found that the majority of the community encountered was not aware of the programs offered at the New Horizon Centre. Suggestions from patrons were most often aimed at adding activities for younger children and generally family oriented events. There seems to be some concern that there are not enough activities for young teenagers who do not have much to do and may use their free time to get into trouble. It was also expressed that there is a no unity between the activities of the youth and elderly. The Trust seems to divide these two groups while some

patrons feel that the experiences and guidance of the seniors would impact the adolescents in a positive manner while the difference customs and experiences of the adolescents would entertain the elderly.

Pictures of solar panels, which look very similar to solar thermal collectors, and wind turbines were on the back of the survey for patrons to have an idea of what the technology looked like if they did not know. Usually the patrons did not have a strong opinion of the aesthetics of the equipment. This can be seen in Figure 23.

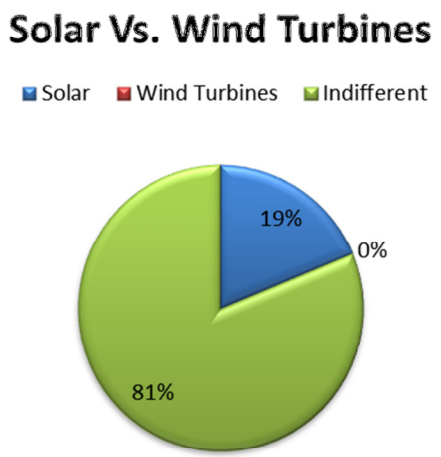

Figure 23: Patron Survey Energy Education Results

However, there were a few that preferred the solar panels to the wind turbines. Overall, this shows that the patrons will most likely not change their attendance to the New Horizon Centre based on this aspect of its appearance.

The awareness of energy efficiency of the patrons was polled in order to determine if community education was necessary. In analyzing the results, it is apparent that nearly all

patrons have at least a basic knowledge of energy efficiency and the benefits that come from it. The main points that were received were monetary savings and decreasing carbon emissions. As far as the involvement of the New Horizon Centre, nearly all were aware that the efficiency of the building would help the Commonside Community Development Trust to put more money into programs or improve existing ones.

5 Conclusions

The team has discovered evidence that suggests that the energy efficiency of the New Horizon Centre can be improved. There are also options to educate the patrons of the Commonside Community Development Trust pertaining to the subject of energy efficiency in an attempt to positively impact the community and the community's impact on the environment. This chapter presents key recommendations from the team and the key factors which influenced the team to make the recommendations.

5.1 Project Purpose and Goals

One of the mains purposes of this project was to evaluate the energy efficiency of the New Horizon Centre. Recommendations were then to be made in an effort to increase the energy efficiency of the building. This enables the Commonside Community Development Trust to save money while also decreasing their carbon footprint. Since this project was completed at a community center, it was also imperative to integrate community outreach into the project. This was done by creating energy efficiency education material that can be distributed to the community in an effort to increase energy efficiency knowledge.

5.2 Project Limitations

Naturally, there were limitations to the team's project. The main causes of limitations found in this project came in the form of equipment, contacts, time, and the building lease.

These limitations may have been temporary obstructions in project progress of certain avenues, but not of calamitous proportions.

The first obstacle that had to be overcome was the lack of equipment. A chemical smoke kit and lux meter were brought from the United States to perform the project. However, the positive pressure test was too large to be transported to the United Kingdom. This would have made discovering leaks in the building envelope easier and may have produced some results that were not found with the chemical smoke test alone. Nevertheless, these findings would be so miniscule that it would yield an insignificant change in the overall results of this project.

Naturally, contacting individuals can be an arduous task. In the case of this project, it was no exception. Some contacts were tough to originally contact, others were difficult to get useful responses from. In addition, the team's sponsor mentioned that the Merton Council had recently been restructured so the hierarchy of contacts within the council was unclear. The main concern was that one individual would refer the team to a different person which whom the team had already interviewed. It seems that the Merton Council and energy experts in the Merton area are formed into a small group of individuals. However, in time interviewees began to repeat the information that the team had already gathered. Therefore, it is reasonable to consider that the majority of the opportunities in the Merton area were discovered and that the individuals whom did not respond would have supplied similar data.

The New Horizon Centre, which houses the Commonside Community Development Trust, is not owned by the Trust. It is owned by the Merton Council, whom is in charge of all the maintenance to the building and allow the Trust to use the New Horizon Centre. Unfortunately, this does rule out some grants which require at least a ten year lease on the building that is

applying for the funding. The Merton Council may apply for the grants on behalf of the Trust, but seeking out the particular member of the Council that would apply for this is a problematic task.

However, the team has overcome these hindrances. The building was audited and recommendations that saved a great amount on energy consumption were found. There were enough contacts found to create more funding opportunities than necessary to make the changes outlined in the recommendations of this report.

5.3 Findings and Recommendations

The team has found that the New Horizon Centre can be upgraded in many different ways as far as energy efficiency is concerned. The initial finding that justified further investigation was the calculation of the Energy Use Index (EUI). This index relates the acceptable quantity of energy usage to the type of building. The conventional energy usage for a building like the New Horizon Centre falls between 50-140 BTUs per square foot per year. The EUI was found to be 121 BTUs per square foot per year currently and is therefore in the upper region of the acceptable region, leaving room for improvement. The following sections outline recommendations that the team has for the Commonside Community Development trust to lower their EUI, becoming more energy efficient.

5.3.1 Recommendations Requiring Investment

This section outlines the findings and recommendations that require significant monetary investment. The majority of these recommendations will also require professional installation. Payback periods have been calculated for each option to assist in the decision making process. It is up to the staff of the Commonside Community Development Trust to determine if these options are practical.

Lighting

All lighting in the New Horizon Centre is fluorescent, which is more efficient than incandescent but can be improved upon. Installing LED lights will provide lower energy usage and longer lifetimes of all lights. When calculating how much this would save the building it as found that approximately £1077.26 can be saved annually, this is a 69.35% savings on lighting costs. The company that the cost estimates were taken from is Net LED, whose pricing list can be found in Appendix E.

However, there is a relatively large investment required to change all the lights in the building, which comes to a total of £3754.98. This results in an approximately 3 ½ year payback period, making it a sound long term investment. In talking with staff at the Commonside Community Trust it has become apparent that this investment may be too large to be made at one time with funding being cut in numerous areas, so other options which could aid in the funding of this recommendations were investigated.

The ideal case would be to attain funding instead of taking out a loan. The grant that was established to be the best fit this project is the SITA Fast Track Fund. This can be applied for online at the SITA website and the guidelines for doing so can be found in Appendix H. If this grant cannot be attained an option would be to replace bulbs as they burnt out with LEDs, therefore easing into the investment over time instead of a lump sum.

Boiler

The boilers in the New Horizon Centre are outdated and newer, more efficient boilers can be installed to save approximately 12.75% on gas bills. According to previous year's gas bills this would save nearly 1500 Pounds, making for roughly an 8.5 year payback. This is a fairly long payback period. Therefore, the team suggests applying for grants to help subsidize this investment. Since this increases the efficiency of the building significantly, the project is eligible for many of the grants seen in section 2.1.3, The Santander Foundation Grant, SITA grants, Awards For All, and the Salix Loans Scheme. This recommendation will require professional, licensed installation.

Photovoltaic

In Chapter 4, a photovoltaic array with a nominal power of 4.4 kW located in Merton was estimated to produce 3726 kWh annually, resulting in a yearly savings of 261 pounds. With an initial cost of 22800 Pounds, the payback would be approximately 87 years. Because England is located at such a high latitude and is notorious for cloudy weather, this value is not unexpected

by the team. If the Commonside Trust really wanted to install a PV array, the only reasonable course of action would be to acquire funding through a grant. Although a feed-in tariff from the UK government would also cut down the payback period, to be eligible the Trust would have to fund the entire array themselves, which it probably not possible. Solar panels would be a large investment, but they would definitely send a clear message to the community that the Trust is sincere about reducing the environmental impact of the New Horizon Centre.

Grants

There are numerous grants that the Commonside Community Development Trust is eligible for. However, this report has only presented grants that are energy related. Unfortunately, due to budget cuts throughout the nation, the number of grants is quickly decreasing. Therefore, so the Trust must be hasty in their action to apply for and secure these grants.

In the process of attaining the listings for these grants, there were numerous Merton Council members and members of industry. These interviews often overlapped or referenced individuals that had already been interviewed by the team. A summary of these grants can be seen in Table 6. However, an appropriate list of grants was compiled. More detailed descriptions of these grants can be seen in Chapter 2 of this report.

Funding Opportunity	Amount/Type
Scottish Power	£25,000 maximum
SITA Fast Track Fund	£10,000 maximum
SITA Core Fund	£50,000 maximum
JJ and Mark Leonard Charitable Trusts	£125,000 maximum

Awards For All	£10,000 maximum
Santander Foundation Grant	£10,000 maximum
The Salix Energy Efficiency Loans Scheme 2	0% Interest loan for projects over £5,000

Table 6: Listing of Funding Opportunities

These grants can be used for the recommendations made in this report that require major investment. However, the guidelines for each must be carefully read before applying as they do differ in application process and prerequisites. These guidelines for these grants can be found in Appendixes H-N.

5.3.2 Recommendations with Little Investment

This section outlines the different recommendations that can be completed with little to no investment. These may not yield as great of results as the recommendations that require investment, but they can be effective in saving energy or reaching out to the community. These recommendations do not require any specialty installation and can all be completed by staff of the Commonside Community Centre.

Heat Distribution

Heat distribution is the system that allocates the heat produced to the various rooms throughout the building. The heat distribution system in the New Horizon Centre consists of single fed forced hot water radiators, meaning that each radiator is running in series with each

other. The system is divided into two separately metered systems due to the merging of the two parts of the building which were not both originally controlled by the Commonside Community Development Trust.

Each radiator has a valve that controls intensity of the heat provided by the radiator. Currently in the New Horizon Centre all of these valves are turned to maximum. This creates a situation where smaller rooms end up being much hotter than larger rooms. By adjusting these valves this temperature gradient can be eliminated and heating would not be wasted in excess in certain areas of the building. In general, lowering the temperature of the building by 1 degree Celsius can decrease the amount of money spent on heating by 8% (Carbon Trust, 2010c).

However, there must be a fine line drawn to decide the temperature in the New Horizon Center. Since this building houses programs that host the elderly, a warmer temperature must be decided on. To aid in making this decision, specific suggestions for the temperature of various rooms throughout the building have been provided in Chapter 4 of this report under the Heat Distribution section.

This system is controlled by seven day timers, which is helpful in setting the exact times when the system should be turned off and on. These timers are not always easily reprogrammed, so a fairly robust and well thought out schedule should be entered. However, it should be updated as often as possible to reflect changes in the seasons. In general, the heating should be turned off before the building is vacated and turned on shortly before employees and patrons show up in the mornings.

Weather Stripping

Energy can be easily lost in the cracks of exterior doors, but can fortunately be fixed relatively easily. The simple solution to this problem is applying weather stripping the doors to ensure a tight seal. There are many different types of weather stripping available for different materials, which are laid out more in depth in Chapter 4. There are doors that are made especially for energy efficiency, but can be very costly and were not found to be of a practical nature for the New Horizon Centre.

The problem doors were found in rooms R2, R5, R13, R17, R24, R26, and hallway H3. The designations of the room and hall numbers can be found in the building plan created by the team in Appendix D. These were the major concerns of the team, but applying new weather stripping to other doors can yield positive results as well. It was seen that most doors have weather stripping, but it is getting aged and cracked. As a rule of thumb, if a piece of paper can be closed in the door and pulled out without ripping, there is energy loss (United States Department of Energy, 2011b).

Energy Education Class

With the community center in an impoverished area, it is respectable to teach the local community how to handle their money and how to save it when possible. Offering a class on the topic of energy efficiency will not only teach how to save money, it will help to make the community on the whole produce less of a negative effect on the environment in emissions. The

material that may be covered in this class has been prepared by the team. A more in depth derivation of what the class will entail and the syllabus can be seen in Chapter 4 of this report.

Energy Literature

An effective way to get information to the community can be in the form of posters and brochures. These take minimal effort and maintenance to implement but can translate a good amount of information to patrons of the New Horizon Centre. The brochure and poster have been prepared by the team, which can be seen in Appendixes F and G, respectively. Therefore, this recommendation can be immediately implemented with little to no maintenance.

Room Usage Poster

It was brought to the team's attention that customers that had rented rooms from the New Horizon Centre had often not used the room in an energy efficient manner. Charging customers that do not use the room properly is a justified course of action because of the extra money that the New Horizon Centre must pay for their usage. However, before this rule can be put into place the customers must be fully informed on how exactly to use the room. Therefore, the team has prepared a simple energy saving procedure that can be posted in the various rooms that are rented out. This can be seen in Appendix G. Like the energy use literature, this is easily implemented and has little to no maintenance involved.

Employee Habits

A survey of the employees was completed in order to investigate relevant energy habits that may impact the energy efficiency of the building negatively or positively. These habits may include having lights off while sunlight is available, having personal heaters, and leaving lights and/or computers on when leaving work. These habits are easy and free to fix with a simple note on the door as the employee leaves to remind them, or altering power settings on a computer.

The team found that the majority of the habits in the New Horizon Centre are acceptable. There are some computers that are left on for remote access, but they are generally turned off. Lighting is used throughout the day, but the team does not see this as problematic because it is used for the lunch club activity, that hosts elderly people whom may require extra lighting. It was also found that there is a single employee responsible for turning off the lights at the end of the day. This is a positive finding because if there is one person responsible for the task there is no room for miscommunication.

It was found that some employees made use of personal heaters. The fact that the desire to use personal heaters exists signifies that the rooms are colder than what the thermostat is set to keep the temperature at. This is most likely due to the imbalance of the heating system. Since the radiators all have valves on them that determine the intensity of the heat emitted from that specific radiator, each room has the potential to be independently adjusted. Since there are not thermostats in each room, it is a necessary task to adjust these vales manually to achieve the desired temperature gradient. Currently, all of these valves are turned to the maximum flow position. Therefore, if these are carefully adjusted so that the cold rooms are at higher flow

setting than the warm rooms the need for personal heaters, which are very inefficient, will be eliminated.

The team also suggests to educate the employees on the subject of energy efficiency and the different losses of energy in the building and also to incentivize. This will ensure that the employees are aware of how they can save energy and, at the same time, will motivate them to do so.

5.4 Concluding Remarks

The Commonside Community Development Trust is one of the largest and highest attended community centers in the area and is growing even stronger by the day. However, budgets are being cut throughout the United Kingdom and the Trust is feeling the adverse effects. For this reason, the team has written this report in a fashion where it may be used as a launch pad for the staff of the Commonside Community Development Trust. The recommendations are meant to step the reader through the path required to implement the suggestion, giving them a practical guide to making the New Horizon Centre more energy efficient.

If the implementations of the recommendations in this report are successful then the Trust will be able to use the money saved to give even more back to the community then they already do. Since this project has been completed for a community center, the goal of community outreach has been a significant focus throughout the project. Therefore, it is important to realize that any money saved will be able to be used in creating new programs and enhancing existing programs offered. Staying in line with the community outreach objective, some of the

recommendations in this report focus solely on the education of the community and are diminutive investments to the Trust.

This project has been successful in finding ways to save energy at the New Horizon Centre. Therefore, this report will successfully aid the Commonside Community Centre Development Trust in realizing the building's full potential. In turn, the Trust now has a guide that will enable them to save money on their energy bills, put saved money into new or existing programs, lower carbon emissions, educate the community, and set a positive example in the community by embracing energy efficiency.

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Appendices

Appendix A – Table of Light Bulb Specifications

Lighting Type	Efficacy (lumens/ watt)	Lifetime (hours)	Color Rendition Index (CRI)	Color Temperature (K)	Indoors/ Outdoors
Incandescent					
Standard "A" bulb	10–17	750–2500	98–100 (excellent)	2700–2800 (warm)	Indoors/ outdoors
Tungsten halogen	12–22	2000–4000	98–100 (excellent)	2900–3200 (warm to neutral)	Indoors/ outdoors
Reflector	12–19	2000–3000	98–100 (excellent)	2800 (warm)	Indoors/ outdoors
Fluorescent					
Straight tube	30–110	7000–24,000	50–90 (fair to good)	2700–6500 (warm to cold)	Indoors/ outdoors
Compact fluorescent lamp (CFL)	50–70	10,000	65–88 (good)	2700–6500 (warm to cold)	Indoors/ outdoors
Circline	40–50	12,000			Indoors
Light-Emitting Diodes					
Cool White LEDs	60–92	35,000–50,000	70–90 (fair to good)	5000 (cold)	Indoors/ outdoors
Warm White LEDs	27–54	35,000–50,000	70–90 (fair to good)	3300 (neutral)	Indoors/ outdoors
Low-Pressure Sodium	60–150	12,000–18,000	-44 (very poor)		Outdoors

(United States Department of Energy, 2010e)

Appendix B – Audit Check Lists

Lists compiled from (Carbon Trust, 2009a; Oregon Department of Energy, n. d.; Thurman et al., 2010; Washington State University Cooperative Extension Energy Program, 2003)

Doors

Ref #	Room/Floor	Rating	Air Lock	Auto Closer	Hold-Open	Snug Fit	Weather Strip	Wind Screen
D1	R1	0	0	0	0	0	0	0
D2	R2	1	2	0	0	2	2	0
D3	R3	0	0	0	0	0	0	0
D4	R4	0	0	0	0	0	0	0
D5	R5	0	0	0	0	0	0	0
D6	R6	0	0	0	0	0	0	0
D7	R7	0	0	0	0	0	0	0
D8	R8	0	0	0	0	0	0	0
D9	R9	0	0	0	0	0	0	0
D10	R10	0	0	0	0	0	0	0
D11	R11	0	0	0	0	0	0	0
D12	R12	0	0	0	0	0	0	0
D13	R13A	0	0	0	0	0	0	0
D14	R13B	0	0	0	0	0	0	0
D15	R14	0	0	0	0	0	0	0
D16	R15	0	0	0	0	0	0	0
D17	R16	0	0	0	0	0	0	0
D18	R17	1.333	3	0	0	2	3	0
D19	R18	0	0	0	0	0	0	0
D20	R19	0	0	0	0	0	0	0
D21	R20	0	0	0	0	0	0	0
D22	R21	0	0	0	0	0	0	0
D23	R22	0	0	0	0	0	0	0
D24	R23	0	0	0	0	0	0	0
D25	R24	1.5	3	0	0	3	3	0
D26	R25	0	0	0	0	0	0	0
D27	R26	1.333	3	0	0	3	2	0
D28	R27	0	0	0	0	0	0	0
D29	B1	0	0	0	0	0	0	0
D30	B2	0	0	0	0	0	0	0
D31	B3	0	0	0	0	0	0	0
D32	B4	0	0	0	0	0	0	0
D33	B5	0	0	0	0	0	0	0

D34	B6	0	0	0	0	0	0	0
D35	B7	0	0	0	0	0	0	0
D36	S1	0	0	0	0	0	0	0
D37	S2	0	0	0	0	0	0	0
D38	S3	0	0	0	0	0	0	0
D39	S4	0	0	0	0	0	0	0
D40	K1	0	0	0	0	0	0	0
D41	K2	0	0	0	0	0	0	0
D42	H1	0	0	0	0	0	0	0
D43	H2	0	0	0	0	0	0	0
D44	H3	1	2	0	0	2	2	0

Illumination

Ref #	Room/Floor	Rating	Decorative Lighting	Lighting of Work Area	Lighting of Entire Room	Diffusers	Reflection	Fluorescent	Amount of Illumination	Automatic Control	Blinds Open During Day	Timers in Bathrooms
I1	R1	0	0	0	0	0	0	0	0	0	0	0
I2	R2	0	0	0	0	0	0	0	0	0	0	0
I3	R3	0	0	0	0	0	0	0	0	0	0	0
I4	R4	0	0	0	0	0	0	0	0	0	0	0
I5	R5	0	0	0	0	0	0	0	0	0	0	0
I6	R6	0	0	0	0	0	0	0	0	0	0	0
I7	R7	0	0	0	0	0	0	0	0	0	0	0
I8	R8	0.1	0	0	0	0	0	0	0	1	0	0
I9	R9	0	0	0	0	0	0	0	0	0	0	0
I10	R10	0	0	0	0	0	0	0	0	0	0	0
I11	R11	0	0	0	0	0	0	0	0	0	0	0
I12	R12	0	0	0	0	0	0	0	0	0	0	0
I13	R13A	0	0	0	0	0	0	0	0	0	0	0
I14	R13B	0	0	0	0	0	0	0	0	0	0	0
I15	R14	0	0	0	0	0	0	0	0	0	0	0
I16	R15	0	0	0	0	0	0	0	0	0	0	0
I17	R16	0.9	0	0	0	1	0	3	2	0	3	0
I18	R17	0	0	0	0	0	0	0	0	0	0	0
I19	R18	0	0	0	0	0	0	0	0	0	0	0
I20	R19	0	0	0	0	0	0	0	0	0	0	0
I21	R20	0	0	0	0	0	0	0	0	0	0	0

I22	R21	0	0	0	0	0	0	0	0	0	0	0
I23	R22	0	0	0	0	0	0	0	0	0	0	0
I24	R23	0	0	0	0	0	0	0	0	0	0	0
I25	R24	0.7	0	0	0	1	0	3	2	0	1	0
I26	R25	0.8	0	0	0	1	0	3	2	0	2	0
I27	R26	1	0	0	0	1	0	3	3	0	3	0
I28	R27	0	0	0	0	0	0	0	0	0	0	0
I29	B1	0	0	0	0	0	0	0	0	0	0	0
I30	B2	0	0	0	0	0	0	0	0	0	0	0
I31	B3	0	0	0	0	0	0	0	0	0	0	0
I32	B4	0	0	0	0	0	0	0	0	0	0	0
I33	B5	0	0	0	0	0	0	0	0	0	0	0
I34	B6	0	0	0	0	0	0	0	0	0	0	0
I35	B7	0	0	0	0	0	0	0	0	0	0	0
I36	S1	0	0	0	0	0	0	0	0	0	0	0
I37	S2	0	0	0	0	0	0	0	0	0	0	0
I38	S3	0	0	0	0	0	0	0	0	0	0	0
I39	S4	0	0	0	0	0	0	0	0	0	0	0
I40	K1	0	0	0	0	0	0	0	0	0	0	0
I41	K2	0	0	0	0	0	0	0	0	0	0	0
I42	H1	0.6	0	0	0	1	3	2	0	0	0	0
I43	H2	0	0	0	0	0	0	0	0	0	0	0
I44	H3	0	0	0	0	0	0	0	0	0	0	0

Roofs

Ref #	Room/Floor	Rating	Insulation	Reflective Surface	Ventilation Under Roof	Leaks
R1	R1	0	0	0	0	0
R2	R2	0	0	0	0	0
R3	R3	0	0	0	0	0
R4	R4	0	0	0	0	0
R5	R5	0	0	0	0	0
R6	R6	0	0	0	0	0
R7	R7	0	0	0	0	0
R8	R8	0	0	0	0	0
R9	R9	0	0	0	0	0

R10	R10	0	0	0	0	0
R11	R11	0	0	0	0	0
R12	R12	0	0	0	0	0
R13	R13A	0	0	0	0	0
R14	R13B	0	0	0	0	0
R15	R14	0	0	0	0	0
R16	R15	0	0	0	0	0
R17	R16	0	0	0	0	0
R18	R17	0	0	0	0	0
R19	R18	0	0	0	0	0
R20	R19	0	0	0	0	0
R21	R20	0	0	0	0	0
R22	R21	0	0	0	0	0
R23	R22	0	0	0	0	0
R24	R23	0	0	0	0	0
R25	R24	0	0	0	0	0
R26	R25	0	0	0	0	0
R27	R26	0	0	0	0	0
R28	R27	0	0	0	0	0
R29	B1	0	0	0	0	0
R30	B2	0	0	0	0	0
R31	B3	0	0	0	0	0
R32	B4	0	0	0	0	0
R33	B5	0	0	0	0	0
R34	B6	0	0	0	0	0
R35	B7	0	0	0	0	0
R36	S1	0	0	0	0	0
R37	S2	0	0	0	0	0
R38	S3	0	0	0	0	0
R39	S4	0	0	0	0	0
R40	K1	0	0	0	0	0
R41	K2	0	0	0	0	0
R42	H1	0.75	3	0	0	0
R43	H2	0	0	0	0	0
R44	H3	0	0	0	0	0

Windows

Ref #	Room/Floor	Rating	Insulation	Solar Protection	Tight Fit	Minor Infiltration	Major Infiltration	Cannot Be Opened	Can Be Opened	Weather Stripped	Clean
W1	R1	0	0	0	0	0	0	0	0	0	0
W2	R2	0	0	0	0	0	0	0	0	0	0
W3	R3	0	0	0	0	0	0	0	0	0	0
W4	R4	0.444	0	0	0	3	0	0	0	0	1
W5	R5	0	0	0	0	0	0	0	0	0	0
W6	R6	0	0	0	0	0	0	0	0	0	0
W7	R7	0	0	0	0	0	0	0	0	0	0
W8	R8	0.111	0	0	0	0	0	0	0	0	1
W9	R9	0	0	0	0	0	0	0	0	0	0
W10	R10	0	0	0	0	0	0	0	0	0	0
W11	R11	0	0	0	0	0	0	0	0	0	0
W12	R12	0	0	0	0	0	0	0	0	0	0
W13	R13A	0	0	0	0	0	0	0	0	0	0
W14	R13B	0	0	0	0	0	0	0	0	0	0
W15	R14	0	0	0	0	0	0	0	0	0	0
W16	R15	0	0	0	0	0	0	0	0	0	0
W17	R16	0	0	0	0	0	0	0	0	0	0
W18	R17	0	0	0	0	0	0	0	0	0	0
W19	R18	0	0	0	0	0	0	0	0	0	0
W20	R19	0	0	0	0	0	0	0	0	0	0
W21	R20	0	0	0	0	0	0	0	0	0	0
W22	R21	0	0	0	0	0	0	0	0	0	0

Appendix C – Survey

General Employee Questions
Job: Office, Kitchen, Cleaner, Other

What time do you come in to work?

What time do you normally leave?

What is your normal routine at the beginning of the day (do you turn computer on or lights on)?

What is your normal routine at the end of the day?

Office Employee Questions
How many people work in the room with you?

Are you ever the first person in your room? Yes/No

When the other people are leaving the room for the day do they turn their computers off? Yes/No

Have you ever been the last person to leave your room at the end of the day? Yes/No

If you were the last person leaving the room do you turn the lights off? Yes/No

Kitchen Staff Questions
Do you have a dishwasher? Yes/No

Do you have someone who washes the dishes? Yes/No

How many loads of dishes do you think you do a day?

Is the oven gas or electric?

Night Staff Questions
Do you normally come in everyday? Yes/No

If not what days do you come in?

Do you prefer people to leave the lights left on in the rooms when they leave for the day? Yes/No

Would it bother you if the lights are off before you start to clean? Yes/No

Do you turn all lights on or just the rooms you are cleaning in at the time? Yes/No

When you finish cleaning a room do you turn the lights off in that room? Yes/No

Are you ever one of the last people in a building? Yes/No

If so, when you finish for the night do you turn off all the lights? Yes/No

Community Questions
(Note Gender)

How old are you? (Age ranges)

How often do you visit the New Horizon Centre?

What programs and activities do you participate in?

Have you replaced any incandescent light bulbs with more energy efficient ones in your home?
• Yes
• No
• I don't know

What temperature do you have the thermostat in your home set to?

Do you turn back your thermostat for periods when you're not home or at night?
• Yes
• No
• I don't know

Did you know that one of the Commonside Community Development Trust's goals is to help the local area become more energy efficient?
• Yes
• No

How important do you think it is that the New Horizon Centre reduces its energy consumption, on a scale of 1-5?

Why do you think that?

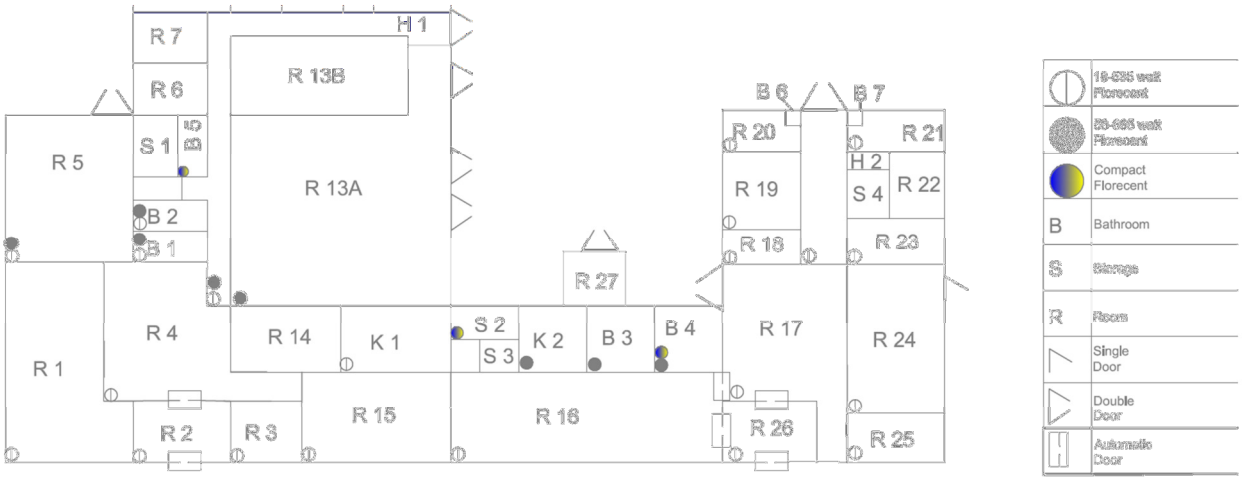
Do you have any suggestions for the New Horizon Centre that would help reduce its energy use?

Do you think it is worth changing the building's outward appearance to save on energy (i.e. installing wind turbines or photovoltaic panels)?

Interview Preamble

We are currently completing a project here in Merton that investigates energy consumption at the New Horizon Centre. As part of this project we are to determine the community opinion of how the building is operated from an energy saving stand point. Do you have time to answer a few questions regarding your views on this subject?

Appendix D - Floor Plan



Appendix E – LED Pricing

NET
LED LIGHTING

2011 Discounted Price List

NET LED Tubes

Part Number	Product Size	Power W	Colour Temperature	Luminous Flux LM	RRP £ Each	Price <100	Price 100-999	Price 1000+
T5								
NET 300/3/15/T5-PW	300mm (1ft)	3	WW/PW/CW	300 / 400 / 500	11.76	10.00	9.06	8.23
NET 600/7/15/T5-PW	600mm (2ft)	7	WW/PW/CW	550 / 650 / 750	18.03	15.33	13.88	12.62
NET 900/10/15/T5-PW	900mm (3ft)	10	WW/PW/CW	900 / 1000 / 1100	25.09	21.32	19.32	17.56
NET 1200/14/15/T5-PW	1200mm (4ft)	14	WW/PW/CW	1150 / 1300 / 1450	31.36	26.66	24.15	21.95
NET T5 24V DC PSU	TBA	30	N/A	N/A	13.80	11.73	10.62	9.66
T8								
NET 600/8/26/T8-PW	600mm (2ft)	8	WW/PW/CW	700 / 800 / 900	31.36	26.66	24.15	21.95
NET 900/11/26/T8-PW	900mm (3ft)	11	WW/PW/CW	1050 / 1150 / 1250	40.77	34.65	31.39	28.54
NET 1200/15/26/T8-PW	1200mm (4ft)	15	WW/PW/CW	1600 / 1700 / 1800	48.61	41.32	37.43	34.03
NET 1500/18/26/T8-PW	1500mm (5ft)	18	WW/PW/CW	1750 / 1850 / 2000	58.02	49.31	44.67	40.61
NET 1800/32/26/T8-PW *	1800mm (6ft)	32	WW/PW/CW	3000 / 3200 / 3400	98.78	83.97	76.06	69.15
T8 Extra Bright Tubes								
NET 600/10/26/T8-PW	600mm (2ft)	10	WW/PW/CW	950 / 1050 /1150	36.06	30.65	27.77	25.24
NET 1200/20/26/T8-PW	1200mm (4ft)	20	WW/PW/CW	2000 / 2100 / 2200	59.58	50.65	45.88	41.71
NET 1500/22/26/T8-PW	1500mm (5ft)	22	WW/PW/CW	2150 / 2250 / 2400	65.86	55.98	50.71	46.10
NET 1500/30/26/T8-PW *	1500mm (5ft)	30	WW/PW/CW	2800 / 2900 / 3100	87.81	74.64	67.61	61.47
T10								
NET 600/10/30/T10-PW	600mm (2ft)	10	WW/PW/CW	950 / 1050 / 1150	36.06	30.65	27.77	25.24
NET 900/11/30/T10-PW	900mm (3ft)	11	WW/PW/CW	1050 / 1200 / 1350	40.77	34.65	31.39	28.54
NET 1200/15/30/T10-PW	1200mm (4ft)	15	WW/PW/CW	1650 / 1800 / 1950	48.61	41.32	37.43	34.03
NET 1500/18/30/T10-PW	1500mm (5ft)	18	WW/PW/CW	1800 / 2000 / 2100	58.02	49.31	44.67	40.61
NET 1800/32/30/T10-PW *	1800mm (6ft)	32	WW/PW/CW	3000 / 3200 / 3400	98.78	83.97	76.06	69.15
NET 2400/35/30/T10-PW *	2400mm (8ft	35	WW/PW/CW	3500 / 3600 / 3800	117.60	99.96	90.55	82.32
T10 Extra Bright Tubes								
NET 1200/20/30/T10-PW	1200mm (4ft)	20	WW/PW/CW	2000 / 2100 / 2200	59.58	50.65	45.88	41.71
NET 1500/22/30/T10-PW	1500mm (5ft)	22	WW/PW/CW	2150 / 2250 / 2400	65.86	55.98	50.71	46.10
NET 1500/30/30/T10-PW *	1500mm (5ft)	30	WW/PW/CW	2800 / 3000 / 3200	87.81	74.64	67.61	61.47

N.B. Extra Bright versions marked with asterix are supplied with External Drivers.
NET LED Tubes can be ordered with a rotatable end cap—additional cost is £1.00 per tube.

NET LED Tube Battens and Trims

Part Number	Product Size	Product Style	Product Description	RRP £ Each	Price <100	Price 100-999	Price 1000+
NET 30VA/REL Pack	330 x 310 x 70	Remote	30VA Emergency Lighting Pack	184.00	184.00	184.00	184.00
NET TL/36/NG	1200mm (4ft)	Single	1200mm (4ft) Single Batten	16.46	13.99	12.68	11.52
NET TL/236/NG	1200mm (4ft)	Twin	1200mm (4ft) Twin Batten	17.85	15.17	13.74	12.50
NET TL/58/NG	1500mm (5ft)	Single	1500mm (5ft) Single Batten	17.85	15.17	13.74	12.50
NET TL/258/NG	1500mm (5ft)	Twin	1500mm (5ft) Twin Batten	19.22	16.33	14.80	13.45
NET TL/70/NG	1800mm (6ft)	Single	1800mm (6ft) Single Batten	19.22	16.33	14.80	13.45
NET TL/270/NG	1800mm (6ft)	Twin	1800mm (6ft) Twin Batten	20.58	17.49	15.85	14.41
NET TL/66148/NG	600mm (2ft)	Quad	600mm (2ft) Quad Recessed Fitting	27.45	23.33	21.13	19.21
NET TNG664E	600 x 600mm	N/A	600 x 600 mm Quad Cat 2 Louver	17.03	14.48	13.11	11.92
NET ALB664E	600 x 600mm	N/A	600 x 600 mm Quad Low Bright Louver	17.03	14.48	13.11	11.92
NET FPP66E	600 x 600mm	N/A	600 x 600 mm Clear Diffuser	3.57	3.03	2.75	2.50
NET SPEC/TL/SF136/C2/NG	1200mm (4ft)	Single	1200mm (4ft) Single Eurosurf Fitting	53.53	45.50	41.22	37.47
NET SPEC/TL/SF236/C2/NG	1200mm (4ft)	Twin	1200mm (4ft) Twin Eurosurf Fitting	57.65	49.00	44.39	40.35
NET SPEC/TL/SF158/C2/NG	1500mm (5ft)	Single	1500mm (5ft) Single Eurosurf Fitting	63.15	53.67	48.62	44.20
NET SPEC/TL/SF258/C2/NG	1500mm (5ft)	Twin	1500mm (5ft) Twin Eurosurf Fitting	64.51	54.84	49.67	45.16

Additional Styles and sizes or fittings are available - enquire for details

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NET
LED LIGHTING

2011 Discounted Price List

NET LED Panel Lights

Part Number	Product Size	Power W	Colour Temperature	Flux LM	RRP £ Each	Price <100	Price 100-999	Price 1000+
NET 1200/PNL-Rect	1200 x 300 x 57mm	42	PW /CW	2600	156.80	133.28	120.74	109.76
NET 600/PNL-Square	600x600x57mm	42	PW/CW	2600	156.80	133.28	120.74	109.76

NET LED Lamps

Part Number	Product Size	Power W	Colour Temperature	Flux LM	RRP £ Each	Price <100	Price 100-999	Price 1000+
NET GU10/4-CW	50 x 55.5mm	4	WW / PW / CW	170	12.54	10.66	9.66	8.78
NET MR16/3-CW	50 x 52mm	3	WW / PW / CW	170	12.07	10.26	9.30	8.45
NET 5/GL-ES/G23	33 x 18 x 175mm	5	WW / PW / CW	350	9.41	8.00	7.24	6.59
NET 6/GL-ES/G24	33 x 33 x 135..	6	WW /PW / CW	400	10.66	9.06	8.21	7.46
NET 10/PAR30	97 x 95mm	10	WW /PW / CW	500	31.45	26.74	24.22	22.02
NET 14/PAR38	128 x 120mm	14	WW /PW / CW	760	40.86	34.73	31.46	28.60

NET LED 2D Lamps

Part Number	Product Size	Power W	Colour Temperature	Flux LM	RRP £ Each	Price <100	Price 100-999	Price 1000+
NET 5W/2D/SQR	133 x 133 x 24mm	5	WW /PW /CW	350	22.32	18.97	17.18	15.62
NET 5W/2D/RND	162 x 24mm	5	WW/PW/CW	350	23.35	19.85	17.98	16.35
NET 13W/2D/SQR	180 x 180 x 24mm	13	WW/PW/CW	1100	29.51	25.09	22.72	20.66
NET 13W/2D/RND	224 x 24mm	13	WW/PW/CW	1100	30.76	26.14	23.68	21.53

NET LED Flood Lights

Part Number	Product Size	Power W	Colour Temperature	Flux LM	RRP £ Each	Price <100	Price 100-	Price 1000+
NET 30/Flood	225 x 185 x 126	30	WW / PW / CW	2069	181.99	154.60	140.05	127.32
NET 60/Flood	360 x 285 x 110	60	WW / PW / CW	4069	341.82	290.55	263.20	239.28
NET 80/Flood	360 x 285 x 110	80	WW / PW / CW	5880	363.78	309.21	280.11	254.64
NET 100/Flood	393 x 285 x 93	100	WW / PW / CW	8600	536.26	455.82	412.92	375.38
NET 150/Flood	593 x 285 x 93	150	WW / PW / CW	12000	688.35	585.10	530.03	481.85

NET LED High Bay Lighting

Part Number	Product Size	Power W	Colour Temperature	Flux LM	RRP £ Each	Price <100	Price 100-999	Price 1000+
NET 100/40/HB	581 x 415	100	WW /PW / CW	7400	520.80	442.68	401.02	364.56
NET 100/120/HB	466 x 500	100	WW /PW / CW	7400	531.30	451.61	409.10	371.91
NET 120/40/HB	631 x 420	120	WW /PW / CW	9000	646.10	549.19	497.50	452.27
NET 120/120/HB	516 x 500	120	WW /PW / CW	9000	646.10	549.19	497.50	452.27
NET 150/40/HB	631 x 420	150	WW /PW / CW	11250	779.80	662.83	600.45	545.86
NET 150/120/HB	516 x 500	150	WW /PW / CW	11250	781.90	664.62	602.06	547.33

NET LED Street Lighting

Part Number	Product Size	Power W	Colour Temp	Flux LM	RRP £ Each	Price <100	Price 100-	Price 1000+
NET 24/STL-E40	110 x 269mm	24	WW / PW / CW	2100	224.22	190.59	172.65	156.96
NET M30/STL	242 x 646mm	30	WW / PW / CW	2400	344.96	293.22	265.62	241.47
NET 48/STL	315 x 495mm	48	WW / PW / CW	4600	446.88	379.85	344.10	312.82
NET 96/STL	315 x 620mm	96	WW / PW / CW	9000	700.90	595.76	539.69	490.63
NET 144/STL	315 x 765mm	144	WW / PW / CW	14000	998.82	848.99	769.09	699.17
NET 192/STL	315 x 910mm	192	WW / PW / CW	18000	1296.7	1102.23	998.49	907.72

All prices are subject to VAT and Postage and packing charges.

Non account holders: Full payment required with order. Account holders: 30 days from date of invoice
Payment accepted by a bank transfer, company cheque or credit card.

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Appendix F – Brochure and Poster

IMPORTANCE OF ENERGY SAVINGS

By having less energy you are saving energy. Not only is saving energy better for the environment but also the lowers energy bills. Using less energy is better for the environment. It lowers the carbon reduction which is better for stopping global warming.

COMMONSIDE COMMUNITY DEVELOPMENT TRUST

HOW TO SAVE ENERGY

NEW HORIZON CENTRE

HUMNAN HABITS

A lot of wasted energy can come from Human Habit. Human habit is peoples daily routine or what they are use to doing. For example People leaving Lights on to people not turning computers off. Doing this every day can waste electricity and cost money. By cutting down on the human habits a significant amount of electricity can be saved. There are many ways to cut down on human. Habits.

WAYS TO CUT DOWN HUMAN HABIT

There are many ways to cut down on human habit. Most of it is remembering to turn appliances on and off and only using them when needed.

HOW TO SAVE ENERGY

- Leaving on a SINGLE light on during the day can cost a little less than 20 Pounds per year
- Make sure radiators are not obstructed
- Do not leave computers, TVs, ect. On when not in use
- 1 Degree can save about 8% on your heating bill
- Use the low temperature setting for washing cloths
- Make sure to have full loads before doing the wash
- Hang cloths to dry when possible
- Invest in a dishwasher if possible, they use less water than if done by hand
- Set boiler to around 60 degrees centigrade

HOW TO SAVE EVEN MORE ENERGY

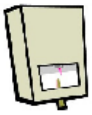
- Close curtains at dusk to help prevent heat from escaping
- Open curtains on sunny days instead of Turing on the lights
- Shorter showers
- Make sure radiators are not obstructed
- LED Lights are usually more than 85% more efficient than florescent

Energy Saving Facts:

Decision **Things you need to know about how to save energy**

- Leaving on a SINGLE light on during the day can cost a little less than 20 Pounds per year

- 1 Degree can save about 8% on your heating bill



- Set boiler to around 60 degrees centigrade

- Do not leave computers, TVs, ect. on when not in use

- Close curtains at dusk to help prevent heat from escaping

- Invest in a dishwasher if possible, they use less water than if done by hand

- LED Lights are usually more than 85% more efficient than florescent

Appendix G – Efficient Room Guidelines Poster

How To Use The Room Efficiently

- Turn off all the lights when you leave the room.
- Only turn on lights if needed
- On sunny days open curtains
- On hot days turn the heaters knob to zero.
- If you are last to use the room for the night turn heaters knob to zero.
- If heaters on leave doors and windows closed

Thank You!

Appendix H – SITA Fast Track Grant Application Guidelines

SITA trust

Enriching nature, Enhancing communities

Application Guide for the Enhancing Communities Fast Track Fund

Contents

1. Introduction

This guide has been created to help applicants understand what the Landfill Communities Fund is and to find out if a project is eligible for funding from SITA Trust. The guide also aims to provide potential applicants with all of the information they will need to submit an online funding application to SITA Trust.

Please read this guide in full.

We have included the questions which will be asked on the online application form to help you prepare for the online application process and give pointers on what we are expecting to see in a good application.

2. About the Fast Track Fund

The Fast Track Fund is part of SITA Trust's Enhancing Communities programme. SITA Trust provides funding for community projects through the Landfill Communities Fund.

What is the Landfill Communities Fund?
Companies that operate landfill sites collect a landfill tax for every tonne of waste that goes into one of their sites. The UK government allows a proportion of this tax to be allocated to the Landfill Communities Fund to support community and environmental improvement projects. SITA Trust receives its funding from the resource and recycling company, SITA UK, which owns landfill sites across the country.

Who can apply for funding?
Not-for-profit organisations including community groups, parish councils, charities, local authorities and voluntary organisations.

SITA Trust's Fast Track Fund provides funding for physical improvements to community facilities. There is a turnaround time of 8 weeks from application deadline to notification; and awards of up to £10,000.

Those applications that can demonstrate successful efforts to raise contributory funds in support of the project (over and above the CTP which is explained in this section of the guide) will be considered favourably, although those that don't will still be considered.

If a Fast Track Fund application is for a contribution towards a larger project, we will only accept the application if the larger project has an **overall value not exceeding £20,000.**

If your organisation is operated on a not-for-profit basis, if your project has access for the public and your project location is within three miles of a qualifying SITA UK waste processing site (see section 3.1) you may be eligible to apply to the Fast Track Fund. Additional criteria are set out below.

Projects in the following categories can be supported:

- Community facilities
- Historic buildings or structures (Grade I listed places of worship and historic buildings or structures with an appropriate designation (Grade A in Scotland), see notes later)
- Sport and recreation facilities

F
There are six funding rounds each year for the Fast Track Fund. Compliant applications are allocated to one of the Trust's programme coordinators who will undertake a thorough assessment of the application.

Unlocking funding with a Contributing Third Party Payment

Before the Trust can release funding to a supported project we need to receive a payment called the Contributing Third Party Payment (CTP). This payment is unique to the Landfill Communities Fund so it's important to read on to understand what the CTP is and why we ask for it.

Why?

Under the Landfill Communities Fund scheme rules, SITA UK (our donor) can contribute some of the landfill tax it collects to the Trust, and reclaim most (but not all) of this contribution as a tax credit. We also have to pay the scheme regulator a fee and incur other minor costs.

To make up the shortfall, SITA UK requires that 11.5% of the money provided is recovered from third parties. We call this element the Contributing Third Party (CTP) payment.

Under the rules, Landfill Communities Fund money cannot be used to provide the CTP so it must be raised from other sources. The CTP is paid to SITA UK and not SITA Trust but neither SITA UK nor SITA Trust will benefit financially.

To calculate the amount of CTP that needs to be raised for your project please visit the SITA Trust website link: www.sitatrust.org.uk/community-funding

It is important to note that the CTP must not be received from a person or organisation that will profit financially from funding the project, e.g. a supplier of goods or services to the project. CTP might come from:

- Your organisation
- Donations from the community
- Donation from an individual
- Award from County Councils, Borough Councils, Parish Councils
- 'Friends of' – i.e. supporters of a project
- Local businesses
- Grants and other awards (not sourced from the LCF)

How does the CTP payment work?

We will explain the mechanism through an example:

If you have applied to SITA Trust for £8,000 and your application is fully successful, you will receive £8,000 from SITA Trust.

However, the CTP payment must be provided to SITA UK as part of the process to release the money.

To release the £8,000, you must first send us a cheque (made out to SITA UK Ltd) to the value of £920. Your budget and subsequent payment requests will clearly show that this amount of £920 has not been raised from Landfill Communities Fund grants.

Another way of putting it is that, to get a grant from SITA Trust, you must find 11.5% of the grant value from another source. In the example given above, you raise £920 and we provide £8,000.

In order to apply to the Fast Track Fund you must identify a CTP provider. Please note that to release funding we will need a CTP payment within four weeks of a funding decision being made.

We appreciate that the CTP is an unusual rule so, if you require further explanation, please call us on 01454 262910.

3. Is your project eligible for funding?

3.1 Location

To be eligible for funding through the Landfill Communities Fund from SITA Trust the project site must be within a SITA Trust funding zone. There are currently circa 90 funding zones around England, Scotland and Wales.

In **England** funding zones fall within 3 miles of a qualifying SITA waste processing site.

In **Scotland** applications can be considered from projects located within 10 miles of the SITA-owned landfill site at Stoneyhill (Aberdeenshire). Projects in the Inverness area must be within 3 miles of the qualifying SITA UK waste treatment site in Inverness. In **Wales** projects must be within 10 miles of Withyhedge (Pembrokeshire).

In addition, projects must be located within 10 miles of a licensed landfill site. This can be any landfill site, not just one owned by SITA UK.

You can readily find out if your project site meets the above requirements by visiting our on-line postcode checker at www.sitatrust.org.uk/postcode-checker or call us on 01454 262910 with your project site's postcode.

If your project location is eligible the post code checker will give you the name of the funding zone and the assigned landfill site, please note both names as you will require these. The checker will also provide you with the distance of your project site from the qualifying waste processing site. You will also need this to complete the online application form.

Applicants with projects located in areas governed by **Lancashire County Council** are requested to direct their enquiries for community funding to Lancashire Environmental Fund (LEF). LEF is an entirely separate organisation that distributes the landfill tax credits raised by SITA UK in the county. However, we welcome applications for projects located within the unitary authorities of Blackburn and Blackpool that are within 3 miles of a qualifying SITA UK waste processing site. The post code checker on our website will confirm if your project site is eligible. To find out more about LEF visit their website on www. lancsenvfund.org.uk.

In the **Perth and Kinross** region of Scotland, applicants are requested to direct their applications to the Perth & Kinross Quality of Life Trust (P&KQLT). P&KQLT is an entirely separate organisation that distributes the landfill tax credits raised by SITA UK in the area. Perth & Kinross Quality of Life Trust can be contacted on 0845 605 2000 or visit their website: www.quality-of-life-trust.org.uk

In areas governed by **Cornwall Council** applicants are requested to direct their enquiries for funding to SITA Cornwall Trust. SITA Cornwall Trust is an entirely separate organisation which distributes the landfill tax credits raised by SITA UK in the county. To find out more about SITA Cornwall Trust you can visit their website at www.sitacornwalltrust.co.uk

3.2 What we can fund:

We can support projects that make physical improvements to a public amenity. A 'public amenity' is interpreted as a facility that can be used by any member of the general public for leisure or recreation. This may include the following:

Community facilities	Sport and recreation facilities
Museums	Public parks
Village greens	Sports fields and facilities
Community halls	Activity centres
Scout or guide huts	Cycle paths
	Sports clubs
Historic buildings (see 3.3. below)	Public playgrounds
Places of worship	Public rights of way & footpaths
Monuments	Bridle ways
Structures	Country parks
	Skate parks

The maximum duration of any project development is three years.

3.3 Repair or Restoration of Historic Buildings

We can fund improvements to places of worship that are Grade 1 listed (Grade A in Scotland).

We can fund improvements to other historic buildings, monuments and structures that are Grade 1, 2* or 2 listed (Grade A or B in Scotland) as well as those that have another appropriate heritage designation e.g. Scheduled Ancient Monument.

If there is a local designation which indicates that a building is deemed important but not on the lists mentioned above, please contact us to talk it through. The types of projects we may be able to fund could include the restoration of architectural features and repair or refurbishment of the structure of the building, such as the refurbishment of a roof.

3.4 What do we mean by the term "physical improvements"?

The term 'physical improvements' may include items such as new heating systems; double-glazing; improvements to energy efficiency; the purchase of equipment to be used at the project site; the provision of disabled access; resurfacing of a sports ground; refurbishing a club house; the restoration of a public park, the creation of a public green space. This list is not exhaustive (call us if you are unsure whether we can fund your project).

3.5 What we cannot fund:

- Companies or organisations that are profit-making
- Projects at sites which do not fall within a funding zone.
- Applications to construct or complete new buildings, or extensions to existing buildings, including the connection of utilities - water, sewerage, electricity, etc. We consider a completed building to have all the required services in place, e.g. toilets, and in the case of changing rooms, showers. We will, however, consider applications for equipment and furnishings such as floor coverings, tables, chairs, curtains, etc. We will also consider the installation of kitchen cabinets and appliances and any associated electrical and plumbing work deemed reasonable.

- Purchase of land or buildings
- Projects which have already been carried out or started, as we cannot provide retrospective funding.
- Allotment projects (because they benefit individuals rather than the public)
- Bus services, minibus services, other vehicles
- Facilities that are not considered to be general community amenities, including; hospitals, hospices, medical/therapy centres, day-care centres, charity offices, as the public cannot book and use these places as a recreational facility.
- Any works to public highways or additions of street furniture for public highways
- Staff posts
- CDs, DVDs or web sites
- Libraries
- Car parks
- Public toilets (although toilets within an amenity can be funded)
- The running costs of an organisation or facility such as electricity bills or rent
- Projects on school or pre-school sites where the facilities provided will primarily benefit the school. However, an application may be considered if the following can be clearly demonstrated:
    - The wider community has significant opportunities to use the facility;
    - The facility is run by an organisation that is separate from the school (although the school may be represented);
    - Access to the facility for community use must be via an entrance that is separate from the school.

If you are in any doubt whether your project is eligible please call 01454 262910

3.6 Public Access to your project

The Landfill Communities Fund is designed to benefit as many people as possible. As a result, public access is an important issue. All projects must have unrestricted public access for a minimum of 104 days per year; that's no less than four evenings, two days each week, or 12 full weeks each year. You will be asked to provide details of public access in your application. Facilities or organisations such as sports clubs which require membership to allow access, must be operated on a not-for-profit basis and allow the general public to join at a reasonable cost.

As part of the decision-making process, the Trust takes into consideration the likelihood that the facility will provide a genuine public amenity. The Trust is unlikely to support a project where the minimum public access requirements are technically met, but where public usage would, in fact, be limited.

3.7 Multiple applications

There is no limit to the number of applications that can be submitted by one organisation. However, a funding award for a specific site or project, through any of SITA Trust's funding programmes, **can only be made once in any three year period.** For example; if a project has applied successfully for funding under the Enriching Nature Programme, a second application for funding at the same site under Enriching Nature OR Enhancing Communities programme will be ineligible.

If a project is considered but not supported by the Board, applicants must wait at least 12 months before re-submitting the same (or modified) project.

3.8 Additional Criteria for Fast Track Fund projects

Meeting the following criteria will strengthen your application:

General

- The project should benefit a wide range of users of all ages and abilities.
- The project should make a significant improvement to a facility, which should enhance existing activities or enable new ones to take place.
- The application should be endorsed by a third party organisation such as a local council, governing body or user group.
- The project should improve community life for a significant number of people, ideally from more than one sector of the community.
- You must be prepared to work with SITA Trust to prepare and action a solid communications plan for the project.
- There is clear evidence of the need for the project, e.g. no comparable facility exists nearby.

Financial

- We prefer it if there is part-funding or resources in-kind from within the community or from other sources, demonstrating wider support for the project.
- You produce a clear plan demonstrating good value for money.
- Projects should be self-sustaining once the initial project funding has been invested. This will include ensuring that the project can be managed and maintained and that funding is available to cover these costs into the future.

3.9 Site Ownership

If a project applicant does not own the site/building where the project will take place, it is a requirement that there should be a lease in place with the owner, and that the lease has a minimum of **10 years** to run at the time of application.

4. Other important information

4.1 VAT

Some applicants may be able to recover VAT (this may include local authorities and charities). Also, VAT may be recoverable or exempt for certain types of projects (for example, work to the fabric of a listed building may be VAT-free).

Please find out the VAT status of your organisation and your project **before** applying.
SITA Trust will not pay the VAT element of project costs if it is recoverable at a later date. If you are sure that VAT is recoverable for your project, do not include VAT in your application.

4.2 Capital items

Under the regulations of the Landfill Communities Fund, the residual value of capital items purchased using Landfill Communities funding must be retained within the Scheme after the project has completed. This means that if your project involves the purchase of capital items (such as computers, machinery etc and any item that can be moved around and used elsewhere), once the project has completed, the residual value of that item must be returned to the Trust. However, at the discretion of the Trust, capital items may be retained if the applicant can prove that they will continue to be used for an activity that is compliant with the Landfill Communities Fund.

4.3 Project underspend

The funds awarded to a project are based on the costs set out in the agreed project budget. If a project subsequently does not require all the funds awarded by SITA Trust for the work the Trust has agreed to fund, the balance of funds cannot be

used on additional work/goods/services that are not part of the agreed Project Delivery Plan.

4.4 Environmental Bodies & Registering Your Project

A requirement of the Landfill Communities Fund is that a registered Environmental Body oversees the transfer of funds and monitors the progress of a project. Environmental Bodies must be registered with ENTRUST, the regulator of the Landfill Communities Fund. If you are successful in being awarded funds, SITA Trust will act as the 'Environmental Body' for your project and we will register it with ENTRUST. **This means that applicants do not need to apply for Environmental Body status.**

4.5 Ensuring best value

To ensure that the project benefits from best value and funds are used effectively and appropriately, the Trust requests that you obtain a minimum of three independent quotes for all work, services and purchases that will be funded by the Trust.

4.6 Ensuring good green credentials

We would like to see that our applicants have taken environmental issues into consideration when planning their project. For ideas and inspiration you can download our Green Guide from www.sitatrust.org.uk

5. When to apply

If your project meets the necessary requirements and you would like to apply for funding for a specific project, you can complete an online application form at www.sitatrust.org.uk. The Enhancing Communities programme, Fast Track Fund has six funding rounds per calendar year. There is no advantage to applicants in applying to one round over another.

Application through our online system is our preferred method. However, if you are unable to apply online or do not have access to the internet and cannot get someone to help you, please contact us so that we can discuss alternative ways of making an application.

6. The application form

Please ensure that you have read this guide in full before you attempt to complete an online application form. You will need two digital photographs to demonstrate the project as well as digital copies of letters of support and quotations of any work to be carried out by contractors. You will be able to upload these in one of the later pages. If you are unable to upload digital copies you may supply this information by post.

Many questions on the online application form have online help or guidance – please use the "?" to access this before you complete the answer.

To navigate through the form please use the PREVIOUS and NEXT buttons at the bottom of each page. Please do not use internet browser buttons as this may result in loss of data between pages.

You can save and edit the application form as many times as you like, returning to it to make additions or amendments at a later time. When your answers have been compiled you can review the form before final submission. The application is only sent to SITA Trust when you click the SUBMIT button on the review page.

Once your application has been submitted you will see a message acknowledging receipt. You should also receive an e-mail, which confirms receipt of your application and advises

what happens next in the application process. A copy of your application will be attached to the e-mail. Please advise SITA Trust if you do not receive this e-mail quoting the reference number provided at the point of submission of your application.

6.1 The application form questions

Applicant

12 questions

1. Name of applying organisation
This is the organisation which will take legal responsibility for the project if the application is successful and will sign the Funding Agreement.

2. Applying organisation's main address
This is the address of the organisation with whom a Funding Agreement will be signed if the application is successful. It may be a different address to the one used for correspondence with the main contact which is requested in Question 7.

3. Main contact title
The following questions ask for details of the person who will be the main contact for all correspondence relating to your application.

4. First name

5. Last name

6. Position

Please enter position within the organisation e.g. club treasurer, manager, director.

7. Main contact and correspondence address
This should be the address of the primary contact from the applicant organisation and will be used for all postal correspondence relating to the application. Please leave blank if this address is the same as provided in Q2.

8. Main contact telephone number
Please enter the STD code (usually the first 5 numbers) in the first box and the remainder of the number in the second box.

9. Alternative main contact telephone number
Please provide a second telephone number - this could be a mobile number or somewhere we can leave a message.

Please enter the STD code (usually the first 5 numbers) in the first box and the remainder of the number in the second box.

10. Main contact email address
Please provide an email address - we will send confirmation of receipt of your application to this address.
Please advise SITA Trust if you do not receive this email within 2 days of completing your application.

11. Please describe the applying organisation
Please provide a brief description of the **applying organisation**, including the type of organisation and the year it was established. If it is a registered charity please provide the charity number. It would be helpful if you listed the main objectives of your organisation.

If it is a not-for-profit company which is not registered as a charity, please say so. We may ask you to provide a copy of your Memorandum and Articles of Association at a later stage of the application process.

12. Does the applying organisation have a bank account open in its own name?

Project (1)

21 questions

1. Project title
Please create a title of your own choosing, in less than 100 characters, which includes the project location (e.g. "*Sunshine Playground in Falfield*" or "*Kitchen Refurbishment in Thornbury Village Hall*").

2. Project site address
This is the address of the site where any work funded by SITA Trust will be undertaken.

3. Name of qualifying SITA UK waste processing location
Your project site must fall within a SITA Trust funding zone. A funding zone is anywhere within a three mile radius of a qualifying SITA UK waste processing location.
The postcode checker on our website allows you to easily see whether your project location falls within a funding zone. If you haven't already obtained this information please press the Save and Exit button at the bottom of the page of the application form, then copy and paste the following link into your internet browser address box.
http://www.sitatrust.org.uk/postcode-checker

Put the postcode of your project site into the box and press "submit" - you will receive the name of the qualifying SITA UK waste processing location, its distance to your project site and the name of the assigned landfill site.

Please make a note of all three pieces of information which you will need to complete questions 3, 4 and 5 on this page.

Re-login to the application form from the website and continue with your application.

4. Distance between project site and qualifying SITA UK waste processing location
See help for Q3

5. Assigned landfill site
See help for Q3

6a. Please provide a brief description of the overall project being undertaken at the project site.
Whether SITA Trust funding is intended to contribute to a larger project or be the only source of funding, please provide a narrative description of the overall project.
In question 8b you will be asked to identify specifically how SITA Trust funds would be used.

6b. Overall project costs
This is the overall cost of the project being undertaken at the project site if the application to SITA Trust is for part of this. This amount cannot exceed £20,000.
If the SITA Trust funds are intended as the only source of funds then the answer to this question will be the same as the answer to Question 8a.

Number Formatting

Please note that all numbers entered here and elsewhere in the application form must be whole numbers only and must not contain any £ signs, commas or decimal places.

If anything other than a whole number is entered an error message will appear when you attempt to move to the next page.

To enter the number for five thousand pounds please just use the figure 5000

Examples of numbers that will generate an error message are:

5,000

5,000.00

5000.00

£5,000

£5,000.00

£5000

If an error message does appear when you attempt to move between pages please review the numeric data entered and amend as appropriate.

7a. How much funding has already been secured towards the overall cost of the project?

If the SITA Trust funds are intended as the only source of funds then the answer to this question will be £0.

7b. Please describe the source of secured funds
Maximum 120 words

8a. Amount requested from SITA Trust
The amount must be no more than £10,000.

The number entered should be the amount of funding requested from SITA Trust rounded to the nearest £.
VAT
Some applicants may be able to recover VAT (this may include Council applications and Charities). Also, VAT may be recoverable or exempt for certain types of projects (for example, work to the fabric of a listed building may not be liable to a VAT charge).
Please find out the VAT status of the applying organisation and the project **before** completing the application form.

SITA Trust will not pay the VAT element of any project costs if VAT is recoverable at a later date. If you are sure that VAT is recoverable for your project, **do not include VAT in your application.**

If VAT is not recoverable you may include the amount of any unrecoverable VAT in the amount of funding requested from SITA Trust. In any event the amount requested from SITA Trust cannot exceed £10,000.

8b. Please provide a description of how you specifically intend to use any funds awarded from SITA Trust
Please explain in detail how any funds awarded by SITA Trust will be used.

9a. How much funding remains to be secured in addition to the amount requested from SITA Trust
Please provide details of the amount of funding that still remains to be secured towards the total cost of your project.
Please **do not** include the amount you are applying to SITA Trust for.
This should be the total shown in question 6b **less** the amounts shown in question 7a and 8a.

9b. If funds still need to be secured in order to complete the overall project please explain where you anticipate obtaining the necessary funds from

If the amount shown in question 9a is greater than zero you have indicated that you currently do not have sufficient funding to complete the overall project.

Please explain how you expect to bridge this funding "gap" (the difference between the funds secured to date, plus the amount you are applying to SITA Trust for, and the overall project costs) and when you anticipate the funds to be secured.

If the answer to question 9a is zero please continue to the next question.

10. What evidence do you have that local people support this project?
The application should be endorsed by a third party organisation such as a local council, user group or governing body. We would expect applicants to be able to demonstrate that there is a genuine need within the local community for such a facility. **Please attach** electronic copies of letters of support in the **Additional Information** section, question no.2. If you are unable to do so, please send them to us quoting the reference number provided at the end of the form. Please use this reference number on all correspondence.

Documents sent by post must reach us by the **Application Deadline Date**. If the documents are not received by this date the application will be deferred and considered at the next funding round. Details of Application Deadline Dates can be found on the Trust's website.

11a. You have already stated that the facility is open to the public for a minimum of 104 days per year. Please give more detail in this section about opening hours
We are going to ask you three questions, 11a. opening hours, 11b. membership scheme, and 11c. advertising the availability of the facility?

For this question, please give details such as opening hours/days, charges, do you operate a booking system, if so how this works, are there restrictions on who can book the facility etc?

11b. Please give details about any membership scheme which is in place
If you don't have a membership scheme please insert "None". If you do, please provide additional details including:

- Who can join?
- If there is a charge to become a member, please state what the annual subscription is.
- How does one join?
- Are there restrictions on who can join?
- Can members of the public use the facility without becoming a member?

11c. How do you advertise the availability of the facility?

12a. What is the current number of users of the facility?
Please enter the current number of users per year of the facility.

Please note that 1 user is a person who may visit the facility more than once a year. For example, 1 person visiting the facility 10 times in a year counts as only 1 user.

12b. What is the anticipated number of users of the facility after completion of the project?
Please enter the anticipated number of users per year of the facility. The anticipated number of users should assume that the work for which funding is being applied for has been completed.

Please note that 1 user is a person who may visit the facility more than once a year. For example, 1 person visiting the facility 10 times in a year counts as only 1 user.

12c. What is the current annual footfall for the facility?
Please enter the current footfall per year of the facility.
Please note that the footfall counts every visit. For example, 1 person visiting the facility 10 times in a year counts as a footfall of 10.

12d. What is the anticipated annual footfall for the facility after completion of the project?
Please enter the anticipated footfall per year of the facility. The anticipated footfall should assume that the work for which funding is being applied for has been completed?

Please note that the footfall counts every visit. For example, 1 person visiting the facility 10 times in a year counts as a footfall of 10.

Project (2)

11 questions

1. Who owns the project site?
Maximum 50 characters

2. Has the project site(s) stated in your application previously received SITA Trust funding. If yes, please provide details.
Please be advised that projects on sites which have previously received SITA Trust funding will only be eligible for consideration after a period of 3 years has elapsed from the date the funding agreement was signed for the previous project.
If you are unsure if your project meets this criteria please contact the Trust on 01454 262910.

3. Name of the organisation that will run the facility being funded by SITA Trust?

4. Will the project take place on land or building that is leased? If yes, who is the lessee and what term of the lease is remaining. If no, please insert "No"
There must be at least 10 years of secured tenure on the site.
(Maximum 120 words)

5. Is planning permission or any other form of consent required? If yes, please describe.
Please give details of any permissions or consents that are required and information relating to the progress of obtaining any required permissions or consents.
(Maximum 120 words)

6. What insurance policies does your organisation have for this project?
Items purchased with SITA Trust funding must be suitably insured for loss or damage and the organisation should have public liability insurance.

7. What environmental considerations will have been incorporated into the completed project?

Please explain any environmental considerations you will take in providing this project e.g. a+ rated appliances, using recycled building materials where appropriate, water saving toilets, tree planting etc. You may wish to refer to SITA Trust's Green Guide on our website.

Please remember to "Save and Exit" the form before visiting the website.

8a. Please provide the name of your local newspaper(s) for the area around the site(s) to be funded

If you are successful in receiving funding from SITA Trust, after the Funding Agreement is signed we will formally notify your local newspaper about this award. If you consent to this please provide the name of your local newspaper(s) and answer YES.

8b. Do you consent to us notifying your local newspaper of any award?
Please answer Yes or no

8c. If the answer to question 8b is "No", please explain why *(Maximum 120 words)*

9. Please tell us who is the local Member of Parliament (MP) for the site where any funding provided by SITA Trust will be spent
We ask for the name of the local MP so that we can let him or her know if we award funds in the constituency. We only provide them with the project title, a very brief description and the amount funded by us so that they are made aware of the benefit that our scheme brings locally. No personal information is disclosed.

Please enter the name of the local MP here in the format Salutation (Mr/Mrs/Miss/Ms etc), First name, Surname.

If you are not sure of the name of the local MP you can find out by visiting the website http://findyourmp.parliament.uk/
Open the link & enter the site address postcode and the MP's name is given.
Please remember to "Save and Exit" the form before visiting the website.

Financial

7 questions

1. Will any income be generated as a result of SITA Trust funding? If yes, please describe.
If the provision of funds from SITA Trust results in the generation of new or additional income, please estimate how much additional annual income is expected, who will receive it, and how it will be spent.

2. Who is your Contributing Third Party (CTP) provider?

Before the Trust can release funding to a supported project we need to receive a payment called the Contributing Third Party Payment (CTP). This payment is unique to the Landfill Communities Fund (LCF), so it's important to understand what the CTP is and why we ask for it.

PLEASE READ OUR APPLICATION GUIDE IN FULL BEFORE APPLYING

The guide describes the CTP requirement in more detail.

However, as an example, to receive a grant of £8,000 you must first raise £920 from non LCF sources.

To calculate the amount of CTP that needs to be raised please visit the SITA Trust website: www.sitatrust.org.uk/apply/calculator

Please remember to "Save and Exit" the form before visiting the website.

For Small Grant applications you must have identified a CTP provider before submitting an application. If your application for funding is successful we will require this payment to be made within 4 weeks of an offer of funding being made.

3a If your project requires the use of a supplier or contractor have you obtained 3 quotes?

3b. If the answer to question 3a is no, please explain why
Have you got three quotes? We will expect to see three quotes for each element of work being proposed. Please attach these in Q3 of the Additional Information section of this application. If this is not possible, please send them by post quoting the reference number generated when you submit your online application.

Documents sent by post must reach us by the **Application Deadline Date**. If the documents are not received by this date the application will be deferred and considered at the next funding round. Details of Application Deadline Dates can be found on the Trust's website.

4a. Is there any connection between the applying organisation and any supplier/contractor being employed to deliver any element of the project? If yes, please describe.

4b. Is there any connection between the CTP provider and any supplier/contractor being employed to deliver any element of the project? If yes, please describe.

5. If the applying organisations latest set of accounts are available on line please provide the web address here

SITA Trust undertakes a financial appraisal of all organisations that apply for funding. If the applying organisations latest set of accounts are available on line please provide the web address here.

Alternatively, you may upload the latest set of accounts via the attachments page or forward them to the Trust by post.

Please note that your application will be delayed if accounts are not provided.

Historic Structures

If you are applying for funding for an historical structure please answer all questions. If not, please insert "not applicable" as the answer to question H1 and continue to the next page of the application form.

H1. Describe the designation of the historic building/structure
Places of worship must be Grade 1 Listed and other historical buildings or structures must have a nationally recognised listing/designation. Please refer to guidance notes for more information.

H2. Describe how the building/structure is of historical/ architectural interest?
Maximum 120 words

H3. Why is the repair/ restoration / improvement work you are proposing necessary?
Maximum 120 words

H4 If relevant has the diocese granted a faculty?
Select Yes/ No

H4a If the answer to question H4 is no, please explain why.

Attachments

1. Please attach 2 photographs to support your application

These should be photographs which help to illustrate the project you wish us to fund. If your application is for internal works to a building please also attach a photograph of the exterior of the building.

If you wish to provide 2 digital photographs you can upload them here.

To upload a photograph, please proceed as follows:

- Click on the "**Browse**" button
- Browse your PC or network to find the photograph you want to upload
- When you have selected the photograph the file path will appear in the box to the left of the "**Browse**" button
- Click the "**Upload File**" button
- If the file has uploaded successfully the text "*File not uploaded*" will change to "*File uploaded", if you wish to change the file please use "Upload File again"*

To upload the second photograph repeat the above process by using the 2nd "**Browse**" button.

Please note that photograph sizes are limited to a maximum size of 3MB

If you are unable to attach photographs electronically and wish to send them by post please also list them in the section provided at the end of the application form.

2. Please attach a maximum of 3 letters of support for your application

To provide digital copies of support letters please upload them here. You may upload a maximum of 3 letters separately.

To upload a file, please proceed as follows:

- Click on the "**Browse**" button
- Browse your PC or network to find the file or document you want to upload
- When you have selected the document the file path will appear in the box to the left of the "**Browse**" button
- Click the "**Upload File**" button
- If the file has uploaded successfully the text "*File not uploaded*" will change to "*File uploaded", if you wish to change the file please use "Upload File again"*

To upload a second or third document repeat the above process by using the 2nd and 3rd "**Browse**" button

Please note that:

- document or file sizes are limited to a maximum size of 3MB
- several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please also list them in the section provided at the end of the application form.

3. Please attach 3 quotes from suppliers or contractors

If you have any quotes from suppliers or contractors, please attach them here.
If you wish to provide digital copies of any quotes you can upload them here. You do not need to attach all of the quotes obtained but a copy of your preferred quote should be provided.

To upload a file, please proceed as follows:

- Click on the "**Browse**" button
- Browse your PC or network to find the file or document you want to upload
- When you have selected the document the file path will appear in the box to the left of the "**Browse**" button
- Click the "**Upload File**" button
- If the file has uploaded successfully the text "*File not uploaded*" will change to "*File uploaded", if you wish to change the file please use "Upload File again"*

To upload a second or third document repeat the above process by using the 2nd and 3rd "**Browse**" buttons

Please note that:

- document or file sizes are limited to a maximum size of 3MB
- several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please also list them in the section provided at the end of the application form.

If the applying organisations latest set of accounts is not available on-line please attach a copy

To upload a file, please proceed as follows:

Click on the "**Browse**" button

Browse your PC or network to find the file or document you want to upload

When you have selected the document the file path will appear in the box to the left of the "**Browse**" button

Click the "**Upload File**" button

If the file has uploaded successfully the text "*File not uploaded*" will change to "*File uploaded",* if you wish to change the file please use *"Upload File again"*

Please note that:

- document or file sizes are limited to a maximum size of 3MB
- several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above
- If you are unable to attach documents electronically and wish to send them by post please list them in the section provided at the end of the application form.

4. Have you any other documents you wish to attach? If yes, please attach them here

If you wish to provide any further information you can upload it here.

To upload a file, please proceed as follows:

Click on the "**Browse**" button

Browse your PC or network to find the file or document you want to upload

When you have selected the document the file path will appear in the box to the left of the "**Browse**" button

Click the "**Upload File**" button

If the file has uploaded successfully the text "*File not uploaded*" will change to "*File uploaded",* if you wish to change the file please use *"Upload File again"*

To upload a second or third document repeat the above process by using the 2nd and 3rd "**Browse**" buttons.

Please note that document or file sizes are limited to a maximum size of 3MB

Several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please list them in the section provided at the end of the application form.

Planner and declaration

7 questions

1. Project start date
This is the anticipated start date for SITA Trust funded works.

2. Project end date
This is the anticipated end date for SITA Trust funded works.

3. Please break down the proposed use of SITA Trust funds into a maximum of 8 key elements, describe each element with its cost.
The total value of the elements you list on this page should be the same as the answer to Question 8a of the Project Information 1 section of the application form (Page 2).
An example of how to complete the planner is shown below:
1st element description: Purchase of play equipment
Amount: £2,100
2nd element description: Installation of play equipment
Amount: £2,600

4. Are you expecting to send in supplementary information by post?
Please select yes or no

5. If you are providing supporting information by post please provide details here
All supplementary information should be sent to the following address:
SITA Trust Ltd
The Barn
Brinkmarsh Lane
Falfield
South Gloucestershire
GL12 8PT

All supplementary information must reach us by the **Application Deadline Date**.
If the documents are not received by this date the application will be deferred and considered at the next funding round. Details of Application Deadline Dates can be found on the SITA Trust website.

Supplementary information sent by post must be identified by the **Application Reference Number** provided when you submit your application. Supplementary information without this reference number will not be accepted.
We recommend that all supplementary information is sent by registered post.

DECLARATION

Please confirm on behalf of the applying organisation detailed in question 1 of the first page of this form, that you are duly authorised to submit this application and that, to the best of your knowledge and belief all answers are true and accurate.

Select from the dropdown box.

Customer Satisfaction Survey

We work hard to ensure our service is of the highest quality. However we need feedback from our applicants to find out how we can improve. We therefore ask you to complete this survey so we can address any areas of concern, although completion is not compulsory.

The information on this page is used only to improve our service. Your comments will have no bearing on the funding decision process for your application.

Please enter a number 1 to 5 against each question (5 = extremely helpful/easy, 4 = very helpful/easy, 3 = satisfactory, 2 = unsatisfactory, 1 = poor, 0 = Not applicable).

1. If you spoke to or emailed someone at SITA Trust before completing the application form, how helpful was the information given?

2. How easy was it to find the application form on the SITA Trust website?

3. How easy was it to complete the online application form?

4. How clear and helpful did you find the Guidance Notes?

5. How clear and helpful did you find the online "help" facility?

6. If you would like to make a comment, please do so here
   Maximum 120 words

7. What happens next?

7.1 What happens to my application?

We will acknowledge receipt of your application by email to the email address you supply on the application form as the main contact's email. This email will confirm that your application has been submitted and will now enter the assessment process.

The email will provide a unique application reference number which you will need for all correspondence with the Trust.

If you have indicated on your application that you will be sending supporting documents to SITA Trust by post please ensure it reaches us by the date stated on the email and ensure that it is clearly marked with the application reference. The Trust cannot accept supporting evidence without an application reference number.

7.2 The assessment process

In the first instance, if your application does not meet the published criteria of the scheme you will be notified at the earliest possible opportunity. Otherwise, your application will be allocated to one of our Programme Co-ordinators who will contact you to introduce themselves. If you have not heard from us one month after the advertised deadline date please contact SITA Trust.

The Programme Coordinator will undertake an assessment of your project and prepare information for our Board of Directors. As part of this, the Programme Co-ordinator will arrange a telephone interview to discuss your application.

We will write to you to notify you of the outcome within 8 weeks of the application deadline date. **Please note: we will only notify applicants of the outcome in writing.**

Please check the web site for the two dates you need to mark on your calendar: the deadline date for applying for funding and the latest decision notification date when you will find out if your application has been successful.

7.3 Project Start

All of the requirements for funding, including receipt of the Contributing Third Party payment must be met before a project can start and we can begin releasing funds.

N.B Any project that fails to start within three months of the date of the offer letter from the Trust will have its offer of support reviewed. At this point the Trust reserves the right to either rescind the funding offer or set a revised deadline (usually three months) for the project to begin.

7.4 Any further questions?

Please call the Trust on 01454 262910 or email: info@sitatrust.org.uk

8. Contact details

SITA Trust
The Barn
Brinkmarsh Lane
Falfield
South Gloucestershire
GL12 8PT

Tel: (01454) 262910 Fax: (01454) 269090.
Website: www.sitatrust.org.uk Email: info@sitatrust.org.uk

Data protection
Full details of our privacy policy can be found on our website

Appendix I – SITA Core Fund Grant Application Guidelines

SITA trust

Enriching nature, Enhancing communities

Application Guide for the Enhancing Communities Core Fund

Contents

1. Introduction

This guide has been created to help applicants understand what the Landfill Communities Fund is and to find out if a project is eligible for funding from SITA Trust. The guide also aims to provide potential applicants with all of the information they will need to submit an online funding application to SITA Trust.

Please read this guide in full.

We have included the questions which will be asked on the online application form to help you prepare for the online application process and give pointers on what we are expecting to see in a good application.

2. About the Core Fund

The Large Grants Scheme is part of SITA Trust's Enhancing Communities programme. SITA Trust provides funding for community projects through the Landfill Communities Fund.

What is the Landfill Communities Fund?
Companies that operate landfill sites collect a landfill tax for every tonne of waste that goes into one of their sites. The UK government allows a proportion of this tax to be allocated to the Landfill Communities Fund to support community and environmental improvement projects. SITA Trust receives its funding from the recycling and resource management company, SITA UK, which owns landfill sites across the country.

Who can apply for funding?
Not-for-profit organisations including community groups, parish councils, charities, local authorities and voluntary organisations.

SITA Trust's Core Fund provides capital funding for physical improvements to community facilities, with awards between £1 and £50,000.

Those applications that can demonstrate successful efforts to raise contributory funds in support of the project (over and above the CTP which is explained in this section of the guide) will be considered favourably, although those that don't will still be considered.

If a Core Fund application is for a contribution towards a larger project, we will only accept the application if the larger project has an **overall value not exceeding £250,000.**

If your organisation is operated on a not-for-profit basis, if your project has access for the public and your project location is within three miles of a qualifying SITA UK waste processing site (see section 3.1) you may be eligible to apply to the Core Fund. Additional criteria are set out below.

Projects in the following categories can be supported:

- Community facilities
- Historic buildings or structures (Grade I listed places of worship and historic buildings or structures with an appropriate designation (Grade A in Scotland), see notes later)
- Sport and recreation facilities

There are three funding rounds each year for the Core Fund. Compliant applications are allocated to one of the Trust's regional fund managers who will undertake a thorough assessment of the application.

Unlocking funding with a Contributing Third Party Payment

Before the Trust can release funding to a supported project we need to receive a payment called the Contributing Third Party Payment (CTP). This payment is unique to the Landfill Communities Fund so it's important to read on to understand what the CTP is and why we ask for it.

Why?

Under the Landfill Communities Fund scheme rules, SITA UK (our donor) can contribute some of the landfill tax it collects to the Trust, and reclaim most (but not all) of this contribution as a tax credit. We also have to pay the scheme regulator a fee and incur other minor costs.

To make up the shortfall, SITA UK requires that 11.5% of the money provided is recovered from third parties. We call this element the Contributing Third Party (CTP) payment.

Under the rules, Landfill Communities Fund money cannot be used to provide the CTP so it must be raised from other sources. The CTP is paid to SITA UK and not SITA Trust but neither SITA UK nor SITA Trust will benefit financially.

To calculate the amount of CTP that needs to be raised for your project please visit the SITA Trust website link: www.sitatrust.org.uk/community-funding

It is important to note that the CTP must not be received from a person or organisation that will profit financially from funding the project, e.g. a supplier of goods or services to the project. CTP might come from:

- Your organisation
- Donations from the community
- Donation from an individual
- Award from County Councils, Borough Councils, Parish Councils
- 'Friends of' – i.e. supporters of a project
- Local businesses
- Grants and other awards (not sourced from the LCF)

How does the CTP payment work?

We will explain the mechanism through an example:

If you have applied to SITA Trust for £20,000 and your application is fully successful, you will receive £20,000 from SITA Trust.

However, the CTP payment must be provided to SITA UK as part of the process to release the money.

To release the £20,000, you must first send us a cheque (made out to SITA UK Ltd) to the value of £2,300. Your budget and subsequent payment requests will clearly show that this amount of £2,300 has not been raised from Landfill Communities Fund grants.

Another way of putting it is that, to get a grant from SITA Trust, you must find 11.5% of the grant value from another source. In the example given above, you raise £2,300 and we provide £20,000.

We appreciate that the CTP is an unusual rule so, if you require further explanation, please call us on 01454 262910. We prefer it if the CTP provider is identified at the application stage. If that is not possible, please be assured that this will not affect the Board's decision on whether or not to fund your project. However, please note that we

do expect projects to begin within six months of funding being approved and, as stated above, we require the CTP payment before the funds can be released.

3. Is your project eligible for funding?

3.1 Location

To be eligible for funding through the Landfill Communities Fund from SITA Trust the project site must be within a SITA Trust funding zone. There are currently circa 90 funding zones around England, Scotland and Wales.

In **England** funding zones fall within 3 miles of a qualifying SITA waste processing site.

In **Scotland** and **Wales** applications can be considered from projects located within 10 miles of the SITA-owned landfill sites at Stoneyhill (Aberdeenshire) and Withyhedge (Pembrokeshire). Projects in the Inverness area must be within 3 miles of the qualifying SITA UK waste treatment site in Inverness.

In addition, all projects must be located within 10 miles of a licensed landfill site. This can be any landfill site, not just one owned by SITA UK.

You can readily find out if your project site meets the above requirements by visiting our on-line postcode checker at www.sitatrust.org.uk/postcode-checker or call us on 01454 262910 with your project site's postcode.

If your project location is eligible the post code checker will give you the name of the funding zone and the assigned landfill site, please note both names as you will require these. The checker will also provide you with the distance of your project site from the qualifying waste processing site. You will also need this to complete the online application form.

Applicants with projects located in areas governed by **Lancashire County Council** are requested to direct their enquiries for community funding to Lancashire Environmental Fund (LEF). LEF is an entirely separate organisation that distributes the landfill tax credits raised by SITA UK in the county. However, we welcome applications for projects located within the unitary authorities of Blackburn and Blackpool that are within 3 miles of a qualifying SITA UK waste processing site. The post code checker on our website will confirm if your project site is eligible. To find out more about LEF visit their website on www. lancsenvfund.org.uk.

In the **Perth and Kinross** region of Scotland, applicants are requested to direct their applications to the Perth & Kinross Quality of Life Trust (P&KQLT). P&KQLT is an entirely separate organisation that distributes the landfill tax credits raised by SITA UK in the area. Perth & Kinross Quality of Life Trust can be contacted on 0845 605 2000 or visit their website: www.quality-of-life-trust.org.uk

In areas governed by **Cornwall Council** applicants are requested to direct their enquiries for funding to SITA Cornwall Trust. SITA Cornwall Trust is an entirely separate organisation which distributes the landfill tax credits raised by SITA UK in the county. To find out more about SITA Cornwall Trust you can visit their website at www.sitacornwalltrust.co.uk

3.2 What we can fund:

We can support projects that make physical improvements to a public amenity. A 'public amenity' is interpreted as a facility that can be used by any member of the general public for leisure or recreation. This may include the following:

Community facilities	Sport and recreation facilities
Museums	Public parks
Village greens	Sports fields and facilities
Community halls	Activity centres
Scout or guide huts	Cycle paths
	Sports clubs
Historic buildings (see 3.3. below)	Public playgrounds
Places of worship	Public rights of way & footpaths
Monuments	Bridle ways
Structures	Country parks
	Skate parks

The maximum duration of any project development is three years.

3.3 Repair or Restoration of Historic Buildings

We can fund improvements to places of worship that are Grade 1 listed (Grade A in Scotland).

We can fund improvements to other historic buildings, monuments and structures that are Grade 1, 2* or 2 listed (Grade A or B in Scotland) as well as those that have another appropriate heritage designation e.g. Scheduled Ancient Monument.

If there is a local designation which indicates that a building is deemed important but not on the lists mentioned above, please contact us to talk it through. The types of projects we may be able to fund could include the restoration of architectural features and repair or refurbishment of the structure of the building, such as the refurbishment of a roof.

3.4 What do we mean by the term "physical improvements"?

The term 'physical improvements' may include items such as new heating systems; double-glazing; improvements to energy efficiency; the purchase of equipment to be used at the project site; the provision of disabled access; resurfacing of a sports ground; refurbishing a club house; the restoration of a public park, the creation of a public green space. This list is not exhaustive (call us if you are unsure whether we can fund your project).

3.5 What we cannot fund:

- Companies or organisations that are profit-making.
- Projects at sites which do not fall within a funding zone.
- Applications to construct or complete new buildings, or extensions to existing buildings, including the connection of utilities - water, sewerage, electricity, etc. We consider a completed building to have all the required services in place, e.g. toilets, and in the case of changing rooms, showers. We will, however, consider applications for equipment and furnishings such as floor coverings, tables, chairs, curtains, etc. We will also consider the installation

of kitchen cabinets and appliances and any associated electrical and plumbing work deemed reasonable.

- Purchase of land or buildings
- Projects which have already been carried out or started, as we cannot provide retrospective funding.
- Allotment projects (because they benefit individuals rather than the public).
- Bus services, minibus services, other vehicles.
- Facilities that are not considered to be general community amenities, including; hospitals, hospices, medical/therapy centres, day-care centres, charity offices, as the public cannot book and use these places as a recreational facility.
- Any works to public highways or additions of street furniture for public highways.
- Staff posts.
- CDs, DVDs or web sites.
- Libraries.
- Car parks.
- Public toilets (although toilets within an amenity can be funded).
- The running costs of an organisation or facility such as electricity bills or rent.
- Projects on school or pre-school sites where the facilities provided will primarily benefit the school. However, an application may be considered if the following can be clearly demonstrated:
  - The wider community has significant opportunities to use the facility;
  - The facility is run by an organisation that is separate from the school (although the school may be represented);
  - Access to the facility for community use must be via an entrance that is separate from the school.

If you are in any doubt whether your project is eligible please call 01454 262910

3.6 Public Access to your project

The Landfill Communities Fund is designed to benefit as many people as possible. As a result, public access is an important issue. All projects must have unrestricted public access for a minimum of 104 days per year; that's no less than four evenings or two days each week, or 12 full weeks each year. You will be asked to provide details of public access in your application. Facilities or organisations such as sports clubs which require membership to allow access must be operated on a not-for-profit basis and allow the general public to join at a reasonable cost.

As part of the decision-making process, the Trust takes into consideration the likelihood that the facility will provide a genuine public amenity. The Trust is unlikely to support a project where the minimum public access requirements are technically met, but where public usage would, in fact, be limited.

3.7 Multiple applications

There is no limit to the number of applications that can be submitted by one organisation. However, a funding award for a specific site or project, through any of SITA Trust's funding programmes, except the Young Persons Volunteering Fund, **can only be made once in any three year period.** For example; if a project has applied successfully for funding under the Enriching Nature Programme, a second application for funding at the same site under Enriching Nature OR Enhancing Communities programme will be ineligible.

If a project is considered but not supported by the Board, applicants must wait at least 12 months before re-submitting the same (or modified) project.

3.8 Additional Criteria for Core Fund projects

Meeting the following criteria will strengthen your application:

General

- The project should benefit a wide range of users of all ages and abilities.
- The project should make a significant improvement to a facility, which should enhance existing activities or enable new ones to take place.
- The application should be endorsed by a third party organisation such as a local council, governing body or user group.
- The project should improve community life for a significant number of people, ideally from more than one sector of the community.
- You must be prepared to work with SITA Trust to prepare and action a solid communications plan for the project.
- There is clear evidence of the need for the project, e.g. no comparable facility exists nearby.

Financial

- We prefer it if there is part-funding or resources in-kind from within the community or from other sources, demonstrating wider support for the project.
- You produce a clear plan demonstrating good value for money.
- Projects should be self-sustaining once the initial project funding has been invested. This will include ensuring that the project can be managed and maintained and that funding is available to cover these costs into the future.

3.9 Site Ownership

If an applicant does not own the site/building where the project will take place, it is a requirement that there should be a lease in place with the owner, and that the lease has a minimum of **10 years** to run at the time of application.

4. Other important information

4.1 VAT

Some applicants may be able to recover VAT (this may include local authorities and charities). Also, VAT may be recoverable or exempt for certain types of projects (for example, work to the fabric of a listed building may be VAT-free).

Please find out the VAT status of your organisation and your project **before** applying.

SITA Trust will not pay the VAT element of project costs if it is recoverable at a later date. If you are sure that VAT is recoverable for your project, do not include VAT in your application.

4.2 Capital items

Under the regulations of the Landfill Communities Fund, the residual value of capital items purchased using Landfill Communities funding must be retained within the Scheme after the project has completed. This means that if your project involves the purchase of capital items (such as computers, machinery etc and any item that can be moved around and used elsewhere), once the project has completed, the residual value of that item must be returned to the Trust. However, at the discretion of the Trust, capital items may be retained if the applicant can prove that they will continue to be used for an activity that is compliant with the Landfill Communities Fund.

4.3 Project underspend

The funds awarded to a project are based on the costs set out in the agreed project budget. If a project subsequently does not require all the funds awarded by SITA

Trust for the work the Trust has agreed to fund, the balance of funds cannot be used on additional work/goods/services that are not part of the agreed Project Delivery Plan.

4.4 Environmental Bodies & Registering Your Project

A requirement of the Landfill Communities Fund is that a registered Environmental Body oversees the transfer of funds and monitors the progress of a project. Environmental Bodies must be registered with ENTRUST, the regulator of the Landfill Communities Fund. If you are successful in being awarded funds, SITA Trust will act as the 'Environmental Body' for your project and we will register it with ENTRUST. **This means that applicants do not need to apply for Environmental Body status.**

4.5 Ensuring best value

To ensure that the project benefits from best value and funds are used effectively and appropriately, the Trust requests that you obtain a minimum of three independent quotes for all work, services and purchases that will be funded by the Trust.

4.6 Ensuring good green credentials

We would like to see that our applicants have taken environmental issues into consideration when planning their project. For ideas and inspiration you can download our Green Guide from www.sitatrust.org.uk/documents

5. When to apply

If your project meets the necessary requirements and you would like to apply for funding for a specific project, you can complete an online application form at www.sitatrust.org.uk. The Enhancing Communities programme, Core Fund has three funding rounds per calendar year. There is no advantage to applicants in applying to one round over another.

Application through our online system is our preferred method. However, if you are unable to apply online or do not have access to email and cannot get someone to help you, please contact us so that we can discuss alternative ways of making an application.

6. The application form

Please ensure that you have read this guide in full before you attempt to complete an online application form. You will need two digital photographs to demonstrate the project as well as digital copies of letters of support and quotations of any work to be carried out by contractors. You will be able to upload these in one of the later pages. If you are unable to upload digital copies you may supply this information by post.

Many questions on the online application form have online help or guidance – please use the "?" to access this before you complete the answer.

To navigate through the form please use the PREVIOUS and NEXT buttons at the bottom of each page. Please do not use internet browser buttons as this may result in loss of data between pages.

You can save and edit the application form as many times as you like, returning to it to make additions or amendments at a later time. When your answers have been compiled you can review the form before final submission. The application is only sent to SITA Trust when you click the SUBMIT button on the review page.

Once your application has been submitted you will see a message acknowledging receipt. You should also receive an e-mail, which confirms receipt of your application and advises what happens next in the application process. A copy of your application will be attached to the e-mail. Please advise SITA Trust if you do not receive this e-mail quoting the reference number provided at the point of submission of your application.

6.1 The application form questions

Applicant

12 questions

1. Name of applying organisation
This is the organisation which will take legal responsibility for the project if the application is successful and will sign the Funding Agreement.

2. Applying organisation's main address
This is the address of the organisation with whom a Funding Agreement will be signed if the application is successful. It may be a different address to the one used for correspondence with the main contact which is requested in Question 7.

3. Main contact title
The following questions ask for details of the person who will be the main contact for all correspondence relating to your application.

4. First name

5. Last name

6. Position
Please enter position within the organisation e.g. club treasurer, manager, director.

7. Main contact and correspondence address
This should be the address of the primary contact from the applicant organisation and will be used for all postal correspondence relating to the application. Please leave blank if this address is the same as provided in Q2.

8. Main contact telephone number
Please enter the STD code (usually the first 5 numbers) in the first box and the remainder of the number in the second box.

9. Alternative main contact telephone number
Please provide a second telephone number - this could be a mobile number or somewhere we can leave a message.

Please enter the STD code (usually the first 5 numbers) in the first box and the remainder of the number in the second box.

10. Main contact email address
Please provide an email address - we will send confirmation of receipt of your application to this address. Please advise SITA Trust if you do not receive this email within 2 days of completing your application.

11. Please describe the applying organisation
Please provide a brief description of the **applying organisation**, including the type of organisation and the year it was established. If it is a registered charity please provide the charity number. It would be helpful if you listed the main objectives of your organisation.

If it is a not-for-profit company which is not registered as a charity, please say so. We may ask you to provide a copy of your Memorandum and Articles of Association at a later stage of the application process.

12. Does the applying organisation have a bank account open in its own name?
Yes or no

Project (1)

21 questions

1. Project title
Please create a title of your own choosing, in less than 100 characters, which includes the project location (e.g. "*Sunshine Playground in Falfield*" or "*Kitchen Refurbishment in Thornbury Village Hall*").

2. Project site address
This is the address of the site where any work funded by SITA Trust will be undertaken.

3. Name of qualifying SITA UK waste processing location
Your project site must fall within a SITA Trust funding zone. A funding zone is anywhere within a three mile radius of a qualifying SITA UK waste processing location.
The postcode checker on our website allows you to easily see whether your project location falls within a funding zone. If you haven't already obtained this information please press the Save and Exit button at the bottom of the page of the application form, then copy and paste the following link into your internet browser address box.
http://www.sitatrust.org.uk/postcode-checker

Put the postcode of your project site into the box and press "submit" - you will receive the name of the qualifying SITA UK waste processing location, its distance to your project site and the name of the assigned landfill site.

Please make a note of all three pieces of information which you will need to complete questions 3, 4 and 5 on this page.

Re-login to the application form from the website and continue with your application.

4. Distance between project site and qualifying SITA UK waste processing location
See help for Q3

5. Assigned landfill site
See help for Q3

6a. Please provide a brief description of the overall project being undertaken at the project site.
Whether SITA Trust funding is intended to contribute to a larger project or be the only source of funding, please provide a narrative description of the overall project.
In question 8b you will be asked to identify specifically how SITA Trust funds would be used.

6b. Overall project costs
This is the overall cost of the project being undertaken at the project site if the application to SITA Trust is for part of this. This amount cannot exceed £250,000.
If the SITA Trust funds are intended as the only source of funds then the answer to this question will be the same as the answer to Question 8a.

Number Formatting

Please note that all numbers entered here and elsewhere in the application form must be whole numbers only and must not contain any £ signs, commas or decimal places.

If anything other than a whole number is entered an error message will appear when you attempt to move to the next page.

To enter the number for five thousand pounds please just use the figure 5000

Examples of numbers that will generate an error message are:

5,000

5,000.00

5000.00

£5,000

£5,000.00

£5000

If an error message does appear when you attempt to move between pages please review the numeric data entered and amend as appropriate.

7a. How much funding has already been secured towards the overall cost of the project?

If the SITA Trust funds are intended as the only source of funds then the answer to this question will be £0.

7b. Please describe the source of secured funds

8a. Amount requested from SITA Trust

The amount must be between £1 and £50,000.

The number entered should be the amount of funding requested from SITA Trust rounded to the nearest £.

VAT

Some applicants may be able to recover VAT (this may include Council applications and Charities). Also, VAT may be recoverable or exempt for certain types of projects (for example, work to the fabric of a listed building may not be liable to a VAT charge). Please find out the VAT status of the applying organisation and the project **before** completing the application form.

SITA Trust will not pay the VAT element of any project costs if VAT is recoverable at a later date. If you are sure that VAT is recoverable for your project, **do not include VAT in your application.**

If VAT is not recoverable you may include the amount of any unrecoverable VAT in the amount of funding requested from SITA Trust. In any event the amount requested from SITA Trust cannot exceed £50,000.

8b. Please provide a description of how you specifically intend to use any funds awarded from SITA Trust

Please tell us what services, equipment or products will be acquired with a SITA Trust award if you are successful with your application.

9a. How much funding remains to be secured in addition to the amount requested from SITA Trust?

Please provide details of the amount of funding that still remains to be secured towards the total cost of your project.

Please **do not** include the amount you are applying to SITA Trust for.

This should be the total shown in question 6b **less** the amounts shown in question 7a and 8a.

9b. If funds still need to be secured in order to complete the overall project please explain where you anticipate obtaining the necessary funds from
If the amount shown in question 9a is greater than zero you have indicated that you currently do not have sufficient funding to complete the overall project.
Please explain how you expect to bridge this funding "gap" (the difference between the funds secured to date, plus the amount you are applying to SITA Trust for, and the overall project costs) and when you anticipate the funds to be secured. If the answer to question 9a is zero please continue to the next question.

10. What evidence do you have that local people support this project?
The application should be endorsed by a third party organisation such as a local council, user group or governing body. We would expect applicants to be able to demonstrate that there is a genuine need within the local community for such a facility. **Please attach** electronic copies of letters of support in the **Additional Information** section, question no.2. If you are unable to do so, please send them to us quoting the reference number provided at the end of the form. Please use this reference number on all correspondence.

Documents sent by post must reach us by the **Application Deadline Date**. If the documents are not received by this date the application will be deferred and considered at the next funding round. Details of Application Deadline Dates can be found on the Trust's website.

11a. You have already stated that the facility is open to the public for a minimum of 104 days per year. Please give more detail in this section about opening hours
We are going to ask you three questions, 11a. opening hours, 11b. membership scheme, and 11c. advertising the availability of the facility.

For this question, please give details such as opening hours/days, charges, do you operate a booking system, if so how this works, are there restrictions on who can book the facility etc?

11b. Please give details about any membership scheme which is in place
If you don't have a membership scheme please insert "None". If you do, please provide additional details including:

- Who can join?
- If there is a charge to become a member, please state what the annual subscription is.
- How does one join?
- Are there restrictions on who can join?
- Can members of the public use the facility without becoming a member?

11c. How do you advertise the availability of the facility?

12a. What is the current number of users of the facility?
Please enter the current number of users per year of the facility.

Please note that 1 user is a person who may visit the facility more than once a year. For example, 1 person visiting the facility 10 times in a year counts as only 1 user.

12b. What is the anticipated number of users of the facility after completion of the project?
Please enter the anticipated number of users per year of the facility. The anticipated number of users should assume that the work for which funding is being applied for has been completed.
Please note that 1 user is a person who may visit the facility more than once a year. For example, 1 person visiting the facility 10 times in a year counts as only 1 user.

12c. What is the current annual footfall for the facility?
Please enter the current footfall per year of the facility.
Please note that the footfall counts every visit. For example, 1 person visiting the facility 10 times in a year counts as a footfall of 10.

12d. What is the anticipated annual footfall for the facility after completion of the project?
Please enter the anticipated footfall per year of the facility. The anticipated footfall should assume that the work for which funding is being applied for has been completed?
Please note that the footfall counts every visit. For example, 1 person visiting the facility 10 times in a year counts as a footfall of 10.

Project (2)

11 questions

1. Who owns the project site?

2. Has the project site(s) stated in your application previously received SITA Trust funding. If yes, please provide details.

Please be advised that projects on sites which have previously received SITA Trust funding will only be eligible for consideration after a period of 3 years has elapsed from the date the funding agreement was signed for the previous project.
If you are unsure if your project meets this criteria please contact the Trust on 01454 262910.

3. Name of the organisation that will run the facility being funded by SITA Trust

4. Will the project take place on land or building that is leased? If yes, who is the lessee and what term of the lease is remaining. If no, please insert "No"
There must be at least 10 years of secured tenure on the site.

5. Is planning permission or any other form of consent required? If yes, please describe.
Please give details of any permissions or consents that are required and information relating to the progress of obtaining any required permissions or consents.

6. What insurance policies does your organisation have for this project?
Items purchased with SITA Trust funding must be suitably insured for loss or damage and the organisation should have public liability insurance.

7. What environmental considerations will have been incorporated into the completed project?
Please explain any environmental considerations you will take in providing this project e.g. a+ rated appliances, using recycled building materials where appropriate, water

saving toilets, tree planting etc. Please refer to SITA Trust's Green Guide on our website.
Please remember to "Save and Exit" the form before visiting the website.

8a. Please provide the name of your local newspaper(s) for the area around the site(s) to be funded

If you are successful in receiving funding from SITA Trust, after the Funding Agreement is signed we will formally notify your local newspaper about this award. If you consent to this please provide the name of your local newspaper(s) and answer YES.

8b. Do you consent to us notifying your local newspaper of any award?
Please answer Yes or no

8c. If the answer to question 8b is "No", please explain why
(Maximum 120 words)

9. Please tell us who is the local Member of Parliament (MP) for the site where any funding provided by SITA Trust will be spent
We ask for the name of the local MP so that we can let him or her know if we award funds in the constituency. We only provide them with the project title, a very brief description and the amount funded by us so that they are made aware of the benefit that our scheme brings locally. No personal information is disclosed.

Please enter the name of the local MP here in the format Salutation (Mr/Mrs/Miss/Ms etc), First name, Surname.

If you are not sure of the name of the local MP you can find out by visiting the website http://findyourmp.parliament.uk/

Open the link & enter the site address postcode and the MP's name is given.
Please remember to "Save and Exit" the form before visiting the website.

Financial

7 questions

1. Will any income be generated as a result of SITA Trust funding? If yes, please describe.
If the provision of funds from SITA Trust results in the generation of new or additional income, please estimate how much additional annual income is expected, who will receive it, and how it will be spent.

2. Have you identified a Contributing Third Party (CTP) provider? If yes, please provide details. If no, please insert "No" and any additional comments you think may be helpful.

Before the Trust can release funding to a supported project we need to receive a payment called the Contributing Third Party Payment (CTP). This payment is unique to the Landfill Communities Fund (LCF), so it's important to understand what the CTP is and why we ask for it.

PLEASE READ OUR APPLICATION GUIDE IN FULL BEFORE APPLYING

The guide describes the CTP requirement in more detail.

However, as an example, to receive a grant of £20,000 you must first raise £2,300 from non LCF sources.

To calculate the amount of CTP that needs to be raised please visit the SITA Trust website: www.sitatrust.org.uk/apply/calculator

Please remember to "Save and Exit" the form before visiting the website.

3a. If your project requires the use of a supplier or contractor have you obtained 3 quotes?

3b. If the answer to question 3a is no, please explain why
Have you got three quotes? We will expect to see three quotes at some stage during our assessment process. Please attach only your preferred quote in Q3 of the Additional Information section of this application. If this is not possible, please send it by post quoting the reference number generated when you submit your online application.

Documents sent by post must reach us by the **Application Deadline Date**. If the documents are not received by this date the application will be deferred and considered at the next funding round. Details of Application Deadline Dates can be found on the Trust's website.

4a. Is there any connection between the applying organisation and any supplier/contractor being employed to deliver any element of the project? If yes, please describe.

4b. Is there any connection between the CTP provider and any supplier/contractor being employed to deliver any element of the project? If yes, please describe.

5. If the applying organisation's latest set of accounts are available on line please provide the web address here
SITA Trust undertakes a financial appraisal of all organisations that apply for funding. If the applying organisations latest set of accounts are available on line please provide the web address here.

Alternatively, you may upload the latest set of accounts via the attachments page or forward them to the Trust by post.

Please note that your application will be delayed if accounts are not provided.

Historic Structures

If you are applying for funding for an historical structure please answer all questions. If not, please insert "not applicable" as the answer to question H1 and continue to the next page of the application form.

H1. Describe the designation of the historic building/structure
Places of worship must be Grade 1 Listed and other historical buildings or structures must have a nationally recognised listing/designation. Please refer to our Application Guide for more information.

H2. Describe how the building/structure is of historical/ architectural interest

H3. Why is the repair/ restoration / improvement work you are proposing necessary?

H4 If relevant has the diocese granted a faculty?
Select Yes/ No

H4a If the answer to question H4 is no, please explain why.

Attachments

1. Please attach 2 photographs to support your application

These should be photographs which help to illustrate the project you wish us to fund. If your application is for internal works to a building please also attach a photograph of the exterior of the building.

If you wish to provide 2 digital photographs you can upload them here.

To upload a photograph, please proceed as follows:

- Click on the "**Browse**" button
- Browse your PC or network to find the photograph you want to upload
- When you have selected the photograph the file path will appear in the box to the left of the "**Browse**" button
- Click the "**Upload File**" button
- If the file has uploaded successfully the text *"File not uploaded"* will change to *"File uploaded", if you wish to change the file please use "Upload File again"*

To upload the second photograph repeat the above process by using the 2nd "**Browse**" button.

Please note that photograph sizes are limited to a maximum size of 3MB

If you are unable to attach photographs electronically and wish to send them by post please also list them in the section provided at the end of the application form.

2. Please attach a maximum of 3 letters of support for your application

To provide digital copies of support letters please upload them here. You may upload a maximum of 3 letters separately.

To upload a file, please proceed as follows:

Click on the "**Browse**" button

Browse your PC or network to find the file or document you want to upload

When you have selected the document the file path will appear in the box to the left of the "**Browse**" button

Click the "**Upload File**" button

If the file has uploaded successfully the text *"File not uploaded"* will change to *"File uploaded",* if you wish to change the file please use *"Upload File again"*

To upload a second or third document repeat the above process by using the 2nd and 3rd "**Browse**" button

Please note that:

document or file sizes are limited to a maximum size of 3MB

several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please list them in the section provided at the end of the application form.

3. Please attach your chosen quote(s) from suppliers or contractors

To provide digital copies of any quotes you can upload them here. You do not need to attach all of the quotes obtained but a copy of your preferred quote should be provided. You can upload up to three documents here if your chosen quotes are for different elements of the work.

To upload a file, please proceed as follows:

Click on the "**Browse**" button

Browse your PC or network to find the file or document you want to upload

When you have selected the document the file path will appear in the box to the left of the "**Browse**" button

Click the "**Upload File**" button

If the file has uploaded successfully the text *"File not uploaded"* will change to *"File uploaded",* if you wish to change the file please use *"Upload File again"*

To upload a second or third document repeat the above process by using the 2nd and 3rd "**Browse**" buttons

Please note that:

document or file sizes are limited to a maximum size of 3MB

several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please list them in the section provided at the end of the application form.

4. If the applying organisation's latest set of accounts is not available on-line please attach a copy

To upload a file, please proceed as follows:

Click on the "**Browse**" button

Browse your PC or network to find the file or document you want to upload

When you have selected the document the file path will appear in the box to the left of the "**Browse**" button

Click the "**Upload File**" button

If the file has uploaded successfully the text *"File not uploaded"* will change to *"File uploaded",* if you wish to change the file please use *"Upload File again"*

Please note that:

document or file sizes are limited to a maximum size of 3MB

several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please list them in the section provided at the end of the application form.

5. Have you any other documents you wish to attach? If yes, please attach them here

If you wish to provide any further information you can upload it here.

To upload a file, please proceed as follows:

- Click on the "**Browse**" button
- Browse your PC or network to find the file or document you want to upload
- When you have selected the document the file path will appear in the box to the left of the "**Browse**" button
- Click the "**Upload File**" button
- If the file has uploaded successfully the text "*File not uploaded*" will change to *"File uploaded", if you wish to change the file please use "Upload File again"*

To upload a second or third document repeat the above process by using the 2nd and 3rd "**Browse**" buttons.

Please note that:

- document or file sizes are limited to a maximum size of 3MB
- several documents could be scanned into a PDF document, creating a file that contains several documents. Providing the size of such a file is less than 3MB, it could be uploaded using the process outlined above

If you are unable to attach documents electronically and wish to send them by post please also list them in the section provided at the end of the application form.

Planner

and Declaration

7 questions

1. Project start date
This is the anticipated start date for SITA Trust funded works.

2. Project end date
This is the anticipated end date for SITA Trust funded works.

3. Please break down the proposed use of SITA Trust funds into a maximum of 8 key elements, describe each element with its cost.

The total value of the elements you list on this page should be the same as the answer to Question 8a of the Project Information 1 section of the application form (Page 2).

An example of how to complete the planner is shown below:

1st element description: New windows including installation

Amount: £12,100

2nd element description: Roof repair contract work

Amount: £8,600

4. Do you intend to send supplementary information to us by post?
Please select yes or no

5. If you are providing supporting information by post please provide details here
If you are sending supplementary information by post to SITA Trust please list the items.

All supplementary information should be sent to the following address:

SITA Trust Ltd
The Barn
Brinkmarsh Lane
Falfield
South Gloucestershire
GL12 8PT

All supplementary information must reach us by the **Application Deadline Date**.
If the documents are not received by this date the application will be deferred and considered at the next funding round. Details of Application Deadline Dates can be found on the SITA Trust website.
Supplementary information sent by post must be identified by the **Application Reference Number** provided when you submit your application. Supplementary information without this reference number will not be accepted.

We recommend that all supplementary information is sent by registered post.

5. Additional information or comments

If you would like to provide any additional information or add any comments to support your application please do so here.

DECLARATION

Please confirm on behalf of the applying organisation detailed in question 1 of the first page of this form, that you are duly authorised to submit this application and that, to the best of your knowledge and belief, all answers are true and accurate.
Select from the dropdown box.

Survey

6 questions

We work hard to ensure our service is of the highest quality. However we need feedback from our applicants to find out how we can improve. We therefore ask you to complete this survey so we can address any areas of concern, although completion is not compulsory.

The information on this page is used only to improve our service. Your comments will have no bearing on the funding decision process for your application.

Please enter a number 1 to 5 against each question (5 = extremely helpful/easy, 4 = very helpful/easy, 3 = satisfactory, 2 = unsatisfactory, 1 = poor, 0 = Not applicable).

1. If you spoke to or emailed someone at SITA Trust before completing the application form, how helpful was the information given?
2. How easy was it to find the application form on the SITA Trust website?
3. How easy was it to complete the online application form?
4. How clear and helpful did you find the Guidance Notes?
5. How clear and helpful did you find the online "help" facility?
6. If you would like to make a comment, please do so here

7. What happens next?

7.1 What happens to my application?

We will acknowledge receipt of your application by email to the email address you supply on the application form as the main contact's email. This email will confirm that your application has been submitted and will now enter the assessment process.

The email will provide a unique application reference number which you will need for all correspondence with the Trust.

If you have indicated on your application that you will be sending supporting documents to SITA Trust by post please ensure it reaches us by the date stated on the email and ensure that it is clearly marked with the application reference. The Trust cannot accept supporting evidence without an application reference number.

7.2 The assessment process

In the first instance, if your application does not meet the published criteria of the scheme you will be notified at the earliest possible opportunity. Otherwise, your application will be allocated to one of our Regional Fund Managers who will contact you to introduce themselves. If you have not heard from us six weeks after the advertised deadline date please contact SITA Trust.

The Regional Fund Manager will undertake an assessment of your project and prepare information for our Board of Directors. As part of this a telephone interview will be arranged to discuss your application.

After the Board meeting we will write to you within two weeks informing you whether or not your application has been shortlisted. **Please note: we will only notify applicants of the outcome in writing.**

A site visit by our Regional Fund Manager will be arranged with shortlisted applicants in order to review the details of your project so that a final decision can be taken by the Trust.

Please check the web site for the two dates you need to mark on your calendar: the deadline date for applying for funding and the latest decision notification date when you will find out if your project has been successful.

7.3 Project Start

All of the requirements for funding, including receipt of the Contributing Third Party payment must be met before a project can start and we can begin releasing funds.

N.B Any project that fails to start within six months of the date of the offer letter from the Trust will have its offer of support reviewed. At this point the Trust reserves the right to either rescind the funding offer or set a revised deadline (usually three months) for the project to begin.

7.4 Any further questions?

Please call the Trust on 01454 262910 or email: sita.trust@sita.co.uk

8. Contact details

SITA Trust
The Barn
Brinkmarsh Lane
Falfield
South Gloucestershire
GL12 8PT

Tel: (01454) 262910, Fax: (01454) 269090.
Website: www.sitatrust.org.uk Email: info@sitatrust.org.uk

Data protection
Full details of our privacy policy can be found on our website

Appendix J – Scottish Power Grant Application Guidelines

Project Eligibility

1. Projects from local community groups and not for profit organizations and charities within the UK may apply.
2. Your project needs to advance renewable energy and support your local community through education and public engagement.
3. The Trust considers all kinds of renewable technologies, including small-scale hydro, wind power, biomass, landfill gas, solar energy and ground source heat pumps. Applications involving other technologies may also qualify for support.
4. We do not fund feasibility studies.
5. Grant requests must be to support the capital and installation costs of a renewable energy project.

Guidance

1. Education and public engagement is important in any application therefore remember to specify your target audience and highlight how you are going to communicate your project to the wider community.
2. Let the Trustees know why your project is important to the community and how it is going to make a difference. Also, this would be a good opportunity to note how the community will be involved in your project.
3. Don't forget to specify the type of application you are making and also make sure your request is for an acceptable level of funding.
4. The Trustees need to know how the grant funding requested will be used. Therefore, you need to provide a financial summary, giving a breakdown of capital and operating costs.
5. Grant requests are becoming very competitive. You can provide additional information to support your application to enable the Trustees to reach a decision about your request.
6. Your supporting document must be a Microsoft Word document (i.e. .doc), a Microsoft Excel spreadsheet (i.e. .xls) or an Adobe pdf document (i.e. .pdf) and must be less than 2Mb. You can attach a maximum of 4 documents with your application.
7. Remember to fully complete all questions. If you're unsure of what you need to include then contact the Secretary who will be only too happy to guide you.

What Happens Next?

1. Your application will be reviewed by each Trustee and a decision made based on merit and the context of the aims of the application and the availability of funds.
2. If your application is received after the final deadline, it will be considered at the following Trustees' meeting, unless otherwise agreed by the Trust Secretary.
3. The Trust Secretary will write to you within 2 weeks of the meeting date to let you know if you've been successful or not. Due to the limited funds and the number of applications received each round; you can only re-apply with the same project if the Trustees invite you to. The Trustees decision is final.
4. If you have been successful then your offer is valid for 2 years from the date of the letter of offer. In order to claim the grant you need to provide evidence that the project is complete. You can do this by forwarding, to the Secretary of the Trust, copies of your contractors invoices and any PR surrounding the launch of your project. Once evidence has been received and verified, a cheque will be raised and forwarded within 28 days.

The Secretary of the Trust will be only too pleased to assist you and can be contacted by e-mailinggreenenergytrust@scottishpower.com or calling 0141 568 3492.

Appendix K – JJ and Mark Leonard Charitable Trusts Application Guidelines

Main areas of interest

- Literacy - to help improve the effectiveness of literacy teaching in primary and secondary education for children with learning difficulties, including Dyslexia, and for ex-offenders or those at risk of offending.
- Environmental education in the UK, particularly projects finding practical ways of involving children and young adults; sustainable agriculture and bio-diversity; and sustainable transport, energy efficiency and renewable energy (some grants in this area are made jointly with The Mark Leonard Trust)
- Environment projects overseas, especially community-based agriculture initiatives, which aim to help people help themselves in an environmentally sustainable way.

How to apply

Please do not send more than one application. It will be considered by all relevant trusts.

The trusts only fund registered charities or activities with clearly defined charitable purposes.

The trustees take an active role in their grant-making, employing a range of specialist staff and advisers to research their areas of interest and bring forward suitable proposals. Many of the trusts work closely with their chosen beneficiaries over a long period to achieve particular objectives.

It should therefore be understood that the majority of unsolicited proposals we receive will be unsuccessful. As a rule the Gatsby, Glass-House, Linbury, Staples and Tedworth trusts do not consider unsolicited proposals.

The other trusts will consider exceptional proposals which fit closely their specific areas of interest. The Trusts gives more information on these areas of interest.

The trusts do not give direct support for:

- Individuals
- Educational fees
- Expeditions

There are no application forms.

Applications to all other trusts should be sent by post to The Sainsbury Family Charitable Trusts, Allington House (1st Floor), 150 Victoria Street, London SW1E 5AE, with a description (strictly no more than two pages please, as any more is unlikely to be read) of the proposed project, covering:

- The organisation – explaining its charitable aims and objectives, and giving its most recent annual income and expenditure, and current financial position. Please do not send a full set of accounts.
- The project requiring funding – why it is needed, who will benefit and in what way
- The funding - breakdown of costs, any money raised so far, and how the balance will be raised.

At this stage please do not send supporting books, brochures, DVDs, annual reports or accounts.

All applications will receive our standard acknowledgement letter. If your proposal is a candidate for support from one of the trusts, you will hear from us within 8 weeks of the acknowledgement. Applicants who do not hear from us within this time must assume they have been unsuccessful.

Appendix L – Awards For All Funding Application Guidelines

AWARDS FOR ALL

England

BIG LOTTERY FUND

Guide for applicants

Awards for All programme in England guidance notes
Stock code: BIG-
Print:
Photography:
Further copies available from:
Phone: 0845 4 10 20 30
Textphone: 0845 6 02 16 59
Email: general.enquiries@awardsforall.org.uk
Our website: www.biglotteryfund.org.uk

Accessibility
Please contact us to discuss any specific communications needs you may have.

Our equality principles
Promoting accessibility; valuing cultural diversity; promoting participation; promoting equality of opportunity; promoting inclusive communities; reducing disadvantage and exclusion. Please visit our website for more information.

We care about the environment
The Big Lottery Fund seeks to minimise its negative environmental impact and only uses proper sustainable resources.

Our mission
We are committed to bringing real improvements to communities and the lives of people most in need.

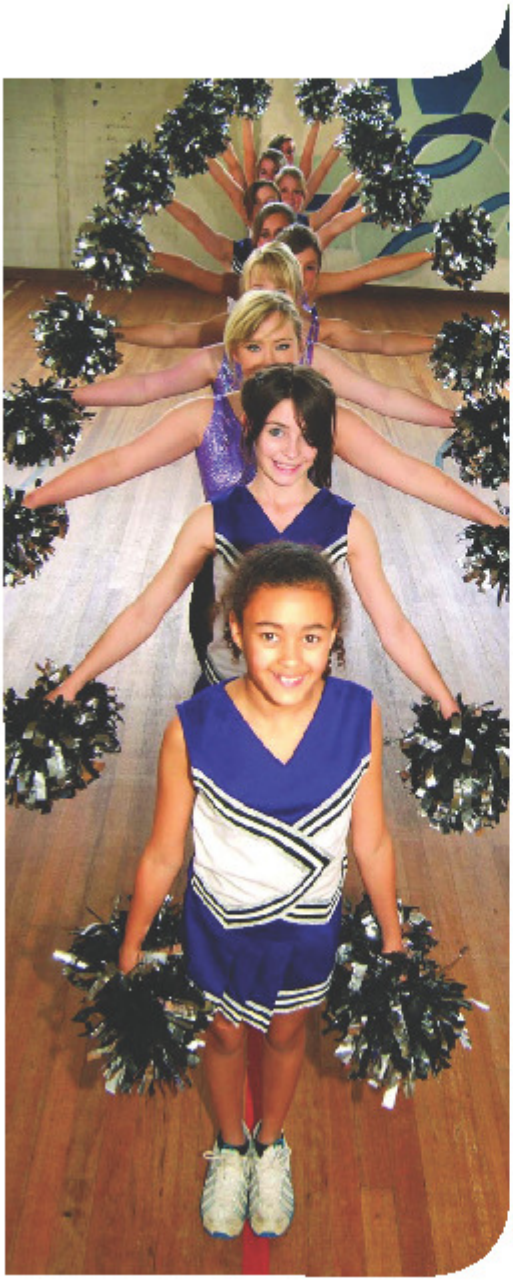
Our values
We have identified seven values that underpin our work: fairness; accessibility; strategic focus; involving people; innovation; enabling; additional to government.

The Big Lottery Fund is committed to valuing diversity and promoting equality of opportunity, both as a grantmaker and employer. The Big Lottery Fund will aim to adopt an inclusive approach to ensure grant applicants and recipients, stakeholders, job applicants and employees are treated fairly.

Awarding funds from
The National Lottery™

Contents

Welcome to Awards for All England



The Big Lottery Fund is responsible for distributing half the money raised by the National Lottery for good causes.

Awards for All is our small grants programme, which aims to help improve local communities and the lives of people most in need.

You can apply for between £300 and £10,000.

This guide tells you:

- who can apply
- what we will and won't fund
- how to apply.

If you have any questions or communication needs (such as Braille or large print, screen reader, audiotape, sign language or a community language) please:

- visit our website: www.awardsforall.org.uk/england
- call our advice line: 0845 4 10 20 30
- send us an email: general.enquiries@awardsforall.org.uk
- contact us using a textphone if you have a hearing impairment: 0845 6 02 16 59.

We update our programmes from time to time, so if you have had this guide for more than three months, contact us or visit our website to check that you have the most up to date version. We published this version in November 2009.

This guide is for applications to Awards for All in England. There are separate Awards for All programmes in Northern Ireland, Scotland and Wales. You can find out about these by visiting our website or calling our advice line.

Is Awards for All right for you?

* Do you need between £300 and £10,000 to help improve your local community and the lives of people most in need?
* Are you a voluntary or community organisation, school, parish or town council, or a health body?
* Do you have a UK-based bank or building society account in the name of your organisation (or, for schools, a local authority bank account) that requires at least two people (who are unrelated and do not live at the same address) to sign cheques or make a withdrawal?
* Can you send us an application at least three months before your project starts and complete your project within one year?
* Can you explain the need for your project and the changes that will happen because of it?

If you can answer Yes to all these questions then Awards for All may be the right programme for you.

If you answer No to any of them please visit www.lotteryfunding.org.uk or phone the Lottery funding hotline 0845 275 0000 (textphone 0845 275 0022) for details of other Lottery grants available.

Guidance for arts, sports and heritage projects

Until March 2009 we ran Awards for All with the other organisations that distribute Lottery funds but there are now separate programmes for arts, sports and heritage projects.

This change means that Awards for All will now only pay for arts, sports or heritage activities where the main purpose of the project meets one or more of the outcomes on page 6 of this guide.

We will not fund applications where the main purpose of the project falls within the scope of programmes run by the other Lottery distributors.

Health bodies

These include:

* Primary Care Trusts
* NHS Hospital Trusts
* Foundation Hospitals.

Applications from branches

Independent branches of larger organisations can apply directly to us. They must have their own governing document and be allowed to manage funds and staff without referring to another body.

Dependent branches can also apply directly to us if they:

* have their own governing document (or have adopted the parent organisation's governing document); and
* produce their own annual accounts (which may be included in the parent organisation's annual report); and
* have a bank (or building society) account and are responsible for how the funds in it are spent.

If we offer a dependent branch a grant we will ask the parent organisation to accept overall responsibility for it.

For other dependent branches, where there is less local control, the parent organisation will need to apply. If you are a branch but are not sure if you can apply, please contact us for advice.

Applications from schools

We welcome applications from schools but we will not pay for activities or services that schools have a statutory responsibility to provide. This means we will not pay for activities that are in the school curriculum or directly related to it.

We expect projects to take place before or after school, during lunch or in the holidays, unless you can provide a good reason in your application why this is not possible (for example, you are in a remote rural area).

Projects should help children learn about new things that are not part of the school day. This may be achieved by working with a local community group or local people.

We will accept applications for projects working solely with children with special needs where it may not be appropriate to involve the wider community, although you still need to show that what you want us to fund is extra to what happens in the school day.

Someone who is directly employed by the school must submit the application (for example, a teacher or administrator).

What will Awards for All support?

Our Awards for All programme aims to help improve local communities and the lives of people most in need.

To achieve our aim we want to fund projects that meet one or more of the following outcomes:

- People have better chances in life – with better access to training and development to improve their life skills.
- Stronger communities – with more active citizens working together to tackle their problems.
- Improved rural and urban environments – which communities are better able to access and enjoy.
- Healthier and more active people and communities.

Our outcomes are the differences we want our funding to make. We will consider how well your project meets our outcomes during our assessment. You must show how your project meets at least one of them to be considered for a grant.

Who can apply?

You can apply to Awards for All England if you are a:

- voluntary and community organisation
- school
- parish or town council
- health body.

But under this programme we will not fund:

- individuals and sole traders
- profit-making organisations
- statutory organisations other than those listed above
- organisations not established in the UK.

We are unlikely to fund organisations that are in poor financial health or those that have had a previous grant from us which has not been managed satisfactorily.

The organisation filling in the form must be the same organisation that will receive the grant and manage the project. We will not consider an application made by one organisation on behalf of another.

Voluntary and community organisations

Voluntary and community organisations are also known as 'third sector' organisations, as they are separate from the public and private sectors.

They are value-led organisations established for social purposes rather than the pursuit of profit and they reinvest surpluses to help tackle issues facing people and the planet.

They include:

* registered and unregistered charities
* co-operatives
* friendly societies
* industrial and provident societies
* companies that are not-for-profit businesses
* unincorporated associations.

To apply to Awards for All, voluntary and community organisations must have:

* a written governing document (for example, a constitution, set of rules or trust deed)
* at least three unrelated people on their governing body or management committee.

We expect organisations with a membership to be open to all and allow anyone to join, unless there is a good reason why this is not appropriate.

What can a grant pay for?

In your application you will need to tell us what the grant would be spent on and how this will achieve one or more of our outcomes.

You can apply for between £300 and £10,000 to fund all or part of your project.

Here are some examples of what a grant can pay for:

- equipment hire or purchase
- feasibility studies for building projects that will cost £25,000 or less (including VAT)
- information technology equipment
- land, building, refurbishment, landscaping or property projects (including playgrounds and temporary buildings) costing £25,000 or less (including VAT)
- materials for use in your project
- publicity materials for use in your project
- sessional workers (those who work only as and when required)
- training
- transport costs
- updating equipment for health and safety reasons
- venue hire
- volunteer expenses
- VAT that you cannot recover.

But we won't pay for:

- activities that happen or start before we confirm our grant
- any costs you incur when putting together your application
- any expenditure incurred or committed before we confirm our grant (including deposits)
- day-to-day running costs (for example, utility bills, council tax, rent and insurance)
- contingency costs
- endowments
- existing activities and repeat or regular events, including those we have funded before
- feasibility studies for building projects that will cost more than £25,000 (including VAT)
- fundraising activities for your organisation or others
- items that mainly benefit individuals (for example, equipment that is not shared)
- land, building, refurbishment, landscaping or property projects (including playgrounds and temporary buildings) costing more than £25,000 (including VAT)
- loans or interest payments
- ongoing staff costs (including salaries of permanent or fixed term staff)
- political or religious activities
- projects or activities that the state has a legal obligation to provide
- projects that you cannot maintain because of high ongoing costs or the need for specialist skills
- projects that cannot be completed within 12 months
- purchase of alcohol
- routine repairs and maintenance
- used vehicles
- VAT that you can recover.

VAT

You may need to pay VAT on purchases you make as part of your project.

You must only include VAT in the amount you request from us if you cannot claim it back from HM Revenue and Customs.

If you later find that you can recover VAT that we have included in our grant you must repay this amount to us.

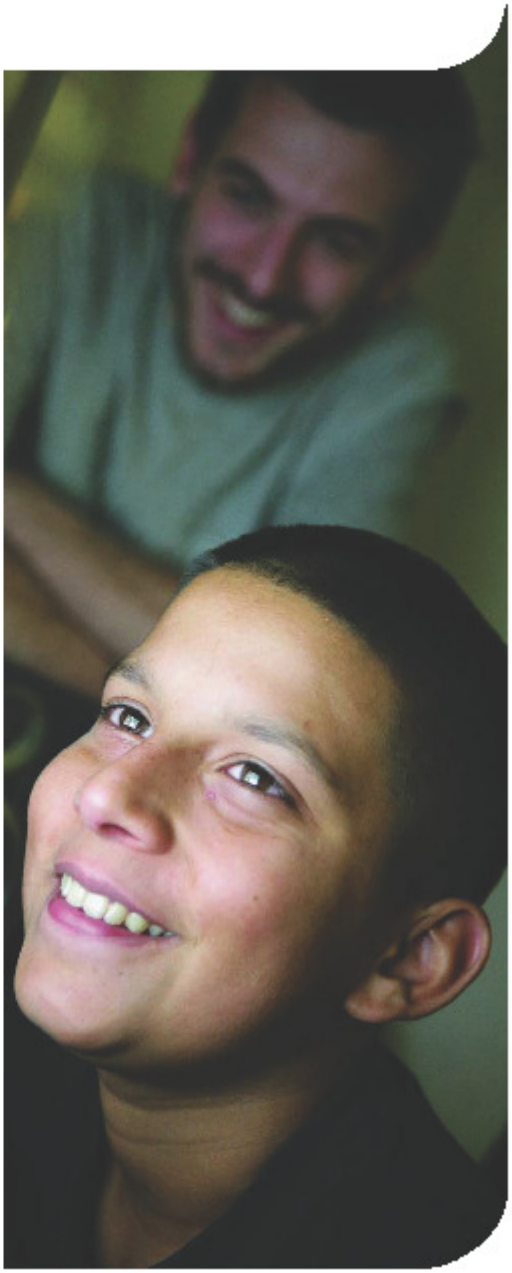
Land and buildings

Projects involving work on land or a building (including refurbishment) can be complicated and take time to complete. We need to be sure that you can complete your project within 12 months. So if you need planning permission, you must have it before you apply.

You also need to own the freehold of the land or building, or hold a lease that cannot be ended by the landlord for at least five years.

Other funding

If you need to raise funds from other sources you must be able to show that this will not delay your project.



How to apply


You read this guide
Check that your organisation can apply, we can fund what you want to do, your project meets at least one of our outcomes and you can meet our terms and conditions of grant.
You complete an application form and send it to us
Send your application to us at least three months before your project will start.
This gives us time to assess your application and you time to send back any information we ask for.
We prefer to receive applications by email but will also accept them by post.
We will only consider one application from your organisation at a time.
We assess your application
We will confirm that we have received your application within five working days.
If your application form is not complete, we will return it to you and give you 10 working days to provide the missing information. We might contact you with questions during our assessment but this is often not necessary.
We tell you our decision
We aim to let you know our decision within 30 working days of receiving a complete application.
If we offer you a grant it will be conditional on you signing and returning our offer letter and accepting our terms and conditions of grant. You will also need to send us some documents that allow us to check how your organisation is run. If your application is unsuccessful we will write to you and tell you why.

You return the documents we ask for

You must return everything we ask for within 20 working days of the date of our offer letter.

You cannot start your project until we have received, checked and approved the signed offer letter and any other documents we ask for. If you do not return everything by our deadline we will withdraw our conditional grant offer (although we may agree a short extension if you contact us before our deadline and there is a good reason).

We check what you send us

We will check what you send us and contact you within 10 working days.

If the documents you send us are satisfactory we will write to you to confirm the grant and tell you when we will pay it into your bank or building society account and announce it to the press and media. If the documents you send us are unsatisfactory we will contact you if we think you may be able to resolve the problem. If there is a major problem or something that cannot be resolved, we will withdraw our conditional grant offer and write to you telling you the reasons why.

You start your project

You can start your project when you receive our letter confirming the grant.

If we give you a grant your organisation cannot apply again to Awards for All until your project has finished and we have approved your end of grant report.

We will not give more than a total of £10,000 (in one or more grants) to an organisation in any two-year period.

You finish your project

You must complete your project within 12 months of the date of our letter confirming the grant.

We will ask you to complete an end of grant report, telling us how the grant has been spent and what you achieved with it. We may visit or phone you to check how the grant has been spent, or ask to see original receipts for the money that you spent.

Developing your application

Filling in an application form can appear quite daunting. It takes time and it is best not to tackle it on your own or in one go.

We want to make a fair assessment of what you want to do but can only base this on the information you give us. If you have never applied to us before, we suggest the following approach.

Getting started

- Start off by thinking about the need you want to meet and how an Awards for All grant might help you do this, rather than asking 'What we can apply for?'
- Read this guide carefully to check that your organisation can apply and we can fund what you want to do.
- Make a list of all the things you think we need to know about your project. Keep this as a checklist to make sure you have included everything in your application form.
- Get together a small group from your management committee or staff to go through the questions on the form and jot down the main points that answer them. Use your checklist to make sure you have not missed anything.
- If you are not sure what a question means, phone us on 0845 4 10 20 30 or email us at general.enquiries@awardsforall.org.uk

Completing the form

- It is best for one or two people to have a go at a first draft rather than everyone trying to write it. Other people may be able to suggest improvements afterwards.
- There is no need to use jargon. In fact, we suggest you avoid it. Just make sure your answers are clear and easy to understand.

Checking your answers

- Make sure you explain the need you have identified and how your project will meet that need.
- We assess every application against our outcomes on page 6 of this guide, so tell us how your project meets at least one of them.
- Your project budget must be as accurate as possible. This will take you time but without it we are unlikely to offer a grant.
- Make sure you can back up what you say with evidence. You do not need to send anything with the form but you can tell us about the evidence you have in your answers, so that we can ask for it if we need it.

Before you send your application to us

- Check that you have answered every question. We will only assess complete application forms, so if you have not answered every question, we will return the whole form to you. This might cause delays that mean we are unable to give our decision in time for your project to go ahead.
- You must be able to comply with our terms and conditions if we offer you a grant. You should check that you can before you apply. You can get a copy of our terms and conditions from our website or you can phone or email us and we will send them to you.
- Remember to keep a copy of your application form in case we contact you with questions.

Projects working with children, young people or vulnerable adults

If you are applying for a project to work with children, young people or adults who are vulnerable (because of their circumstances or problems) you must have a policy that explains how you will make sure they will be safe.

You must also be able to show in your application that your policy will be put into practice.

It is your responsibility to have acceptable safeguarding policies and procedures for children, young people and vulnerable adults in place, which we may ask to inspect at any time if we offer you a grant.

The NSPCC has produced a guide for organisations to safeguard children called 'Firstcheck'. You can find out more about this at www.nspcc.org.uk or you can buy a copy by calling 020 7825 7422.

Insurance and safety

Depending on the type of project, you may need public liability insurance or qualified leaders.

It is your responsibility to ensure you have adequate insurance in place. This should include cover for any assets you buy or events and activities you run using our grant. We may ask to look at these policies at any time.

Your organisation must be affiliated to a governing body if your project involves a dangerous sport or activity.

Equal opportunities

We expect projects to be open to all who want to be involved, unless you can give a good reason why this should not be the case.

If you plan to restrict who can take part you should explain why in your application, so that we can consider whether this is acceptable.

Your application should show your commitment to our equality principles, which are explained in our 'Equality Matters' guide. You can get this from our website or advice line.

How we assess applications

When we have received a complete application from you we will start our assessment. We will only consider one application from your organisation at a time.

We will check that your organisation can apply and your project is something we can support. We will then consider:

- the need for your project
- who will benefit
- how you will achieve our outcomes
- if we have funded you before
- your organisation's income
- the total project cost.

We seldom have enough funds to support all the applications we would like to. When this happens we need to make some difficult decisions.

We have a scoring system that helps us do this. We give more points to applications that:

- show strong evidence of need
- seek to involve as wide a range of people as possible
- meet more of our outcomes
- are from organisations that Awards for All has not funded before
- are from organisations with a smaller annual income
- are for smaller projects.

The score that an application needs for us to fund it will vary depending on the amount and quality of the applications we receive and the amount of money we have available at the time.

We aim to assess each application equally and fairly and our team meets regularly to discuss their assessments.

Our managers approve the final decisions.

If we offer you a grant

If we offer you a grant we need you to confirm what you told us in your application before we will pay the grant to you. This means that our grant offer is conditional on you and a senior contact from your organisation signing and returning our offer letter and accepting our terms and conditions of grant. Both signatories must be over eighteen years old and the senior contact must be your chair, secretary, treasurer, chief executive, parish or town council clerk, or head teacher.

You will also need to send us some documents that allow us to check how your organisation is run. We explain this in more detail on page 16.

You must return everything we have asked for within 20 working days from the date of our offer letter, otherwise we will withdraw our conditional grant offer (although we may agree a short extension if you contact us before our deadline and there is a good reason).

You cannot start your project until we have received, checked and approved the signed offer letter and any other documents we have asked for.

Confirming our grant

If what you send is satisfactory we will write to you within 10 working days of receiving it, telling you when we will pay the grant and announce it to the press and media. You can then start your project.

Withdrawing our offer

If what you send is unsatisfactory we will contact you if we think you may be able to resolve the problem. If there is a major problem or something that cannot be resolved, we will withdraw our conditional grant offer and write to you telling you the reasons why. You can send us a new application but before you do, you must address the reason why we withdrew our grant offer.

We will assess any new application on its merits, in competition with others, so it may not be successful.

Monitoring your grant

If we fund your project we will need you to complete an end of grant report to confirm how the grant has been spent and what you achieved.

We may ask you for original receipts so make sure you keep them.

We may also visit you to check how the grant has been spent.

Applying again

Once you have spent your grant and we have approved your end of grant report you can apply again.

We want our funding to help lots of groups, so we will not give more than a total of £10,000 (in one or more grants) to an organisation in any two-year period. We work this out using the date we confirmed our grant. This includes dependent branches. Your organisation as a whole (parent organisation and dependent branches) cannot receive more than £10,000 in any two-year period.

If you have already received funding from Awards for All and are unsure whether you can apply again or how much you can apply for, please contact us to check before you apply.

We consider each application on its merits, so there is no guarantee that we will make another grant to the same organisation.

We are unlikely to fund the same thing twice so you need to show that you are doing something different, or making an important new development, compared with the previous application.

Our scoring takes into account whether we have funded your organisation recently, so your chances of receiving another grant may be lower, unless your application is stronger in other areas.

What we will ask you to send us

Before you apply, make sure you can provide the following information if we make a conditional grant offer.

Please do not send it with your application.

We will confirm what we need from you in our offer letter and will include a checklist. You cannot start your project until we have received, checked and approved everything we ask for.

What we will ask for depends on the type of organisation you are.

Voluntary and community organisations

- We will need a copy of your organisation's latest approved annual accounts, signed and dated by your chair, secretary or treasurer and by your auditor or independent examiner, where appropriate. If your organisation has been running for less than 15 months, you may not be able to give us this so in these cases we will accept a 12-month financial projection for the year when you will spend the grant.
- We will send you a 'Bank or building society details form'. You will need to ask your bank or building society to complete it, to verify your account. Your bank may charge you a small amount for this, which you cannot reclaim from us.
- We will need three consecutive pages of original bank (or building society) statements. Depending on the number of transactions, these may cover one, two or three months but the most recent page you send must be less than three months old. If you use a building society passbook, we will need copies of three consecutive pages from your passbook, which have been certified by your building society with a stamp and signature as 'true copies of the original'. The pages you send must include your most recent transactions and your account details.
- Unless you are a registered charity or a company limited by guarantee (or a registered charity that is also a company limited by guarantee) we will need a copy of your organisation's governing document, constitution or set of rules.
- If you are a branch of a larger organisation that has management and financial control over your work we will need a letter, signed by a senior officer from the larger organisation, confirming their support for your application and accepting overall responsibility for it.
- We may contact you to ask for details of an independent referee, someone independent of your organisation but who knows its work well. If we need an independent referee, we will explain our requirements when we contact you.

Parish or town councils

- We will need an original bank (or building society) statement that is not more than three months old, or a copy of the most recent page from your building society passbook that is stamped and certified by them as a true copy of the original.
- We may ask you to send a copy of your latest accounts or audit report.

Schools

- If your school has its own bank or building society account we will need an original statement that is not more than three months old, or a copy of the most recent page from your building society passbook that is stamped and certified by them as a true copy of the original.
- If your school uses a local authority bank or building society account we will need a letter signed by a senior officer in the local authority with details of the account the grant will be paid into and confirmation that our grant will only be used for the project described in your application.

Health bodies

- We will need a letter signed by a senior officer from your organisation with details of the bank or building society account the grant will be paid into and confirmation that our grant will only be used for the project described in the application.

We have published a separate guide to accepting a conditional grant offer that explains these requirements in more detail. You can get this from our website or advice line. Please read it before you apply, to check that you will be able to send us everything we need.

Customer care

We aim to be efficient, polite and supportive in everything we do.

If you think we have treated you unfairly, made mistakes or given you the wrong advice, we have a complaints procedure. You can get this from our website or advice line.

You may be disappointed if we turn down your application but you cannot use the complaints procedure to appeal against our decision if we have followed our process correctly.

Making a complaint will not affect your chances of getting a grant from us and it will not affect the level of service you receive.

If your application is unsuccessful

We consider all applications in competition with each other and we know that you will be disappointed if we decide not to offer you a grant.

If your application is not successful we will write to you telling you the reasons why. Please consider our reasons carefully before deciding whether to apply again.

Since we seldom have enough funds to support all the applications we would like to, if you send us the same application again our experience is that it is also likely to be unsuccessful.

Your time may be better spent seeking funds from other sources. We suggest you only apply again for the same project if you can make a much stronger case.

Data Protection and Freedom of Information

Data protection

We will use the information you give us on the application form and supporting documents during assessment and for the life of any grant we award you to administer and analyse grants and for our own research.

We may give copies of this information to individuals and organisations we consult when assessing applications, when monitoring grants and evaluating the way our funding programmes work and the effect they have. These organisations may include accountants, external evaluators and other organisations or groups involved in delivering the project.

We may also share information with other Lottery distributors, government departments and other organisations and individuals with a legitimate interest in Lottery applications and grants, or for the prevention and detection of fraud.

We may use the data you provide for our own research. We recognise the need to maintain the confidentiality of vulnerable groups and their details will not be made public in any way, except as required by law.

Freedom of Information

The Freedom of Information Act 2000 gives members of the public the right to request any information that we hold. This includes information received from third parties, such as, although not limited to, grant applicants, grant holders, contractors and people making a complaint.

If information is requested under the Freedom of Information Act we will release it, subject to exemptions, although we may consult with you first. If you think that information you are providing may be exempt from release, you should let us know when you apply.

Our bank or building society account requirements

You must have a UK based bank or building society account in the name of the organisation that submits the application to us and will carry out the project.

We require at least two people to sign each cheque or make a withdrawal.

If any signatories are related or live at the same address we need written confirmation from your bank or building society that these people cannot authorise payments together.

If you are a school, a local authority bank or building society account is also acceptable.

We may ask you to open a new and separate account that will only be used for our funding. If you have had a Big Lottery Fund grant before and we asked you to set up a separate account, you must also use this account for an Awards for All grant.

New organisations

If your organisation has been running for less than three months we will need all the original statements you have received from your bank or building society (or certified copies of all the pages from your building society passbook that have transactions on them).

We will also need an original letter from your bank or building society showing your account details and when the account was opened.

Internet bank or building society accounts

If your organisation uses an internet account we still need original, paper statements. You will need to ask your bank or building society to send these to you, as we will not accept downloaded versions.

We will also require at least two people to authorise a payment. If any of the people who can authorise a payment are related or live at the same address we will need written confirmation from your bank or building society that they cannot authorise the same payments.

Help and advice

You may have questions about how to apply or plan your project. There are many sources of help and advice.

Call us with any questions you may have on 0845 4 10 20 30 or email us at general.enquiries@awardsforall.org.uk

If you have a hearing impairment you can contact us using a textphone on 0845 6 02 16 59.

We work with a range of organisations that may be able to help you with your application or your organisation's governing document. These include Councils for Voluntary Service, Rural Community Councils and local authorities.

Here are some organisations and websites that you might find helpful.

You can find your local Council for Voluntary Service on the National Association for Voluntary and Community Action (NAVCA) website.
www.navca.org.uk/llodir

ACRE (Action with Communities in Rural England) has a list of Rural Community Councils on its website.
www.acre.org.uk/resources_usefullinks_rccs.html

Your local authority may have a Lottery officer or funding team that can help you. Contact details for all local authorities are on the Direct Gov website at:
www.direct.gov.uk/en/Dl1/Directories/Localcouncils

You may also find contact details for these organisations in your phonebook.

Businesses that offer help

Some businesses promote their services by telling potential customers about Awards for All. They may offer consultancy services or imply that they are acting on our behalf. They might even offer to help you fill in the form if you pay them a fee or deposit.

Please note that our application process is free and we do not think any paid help is necessary.

We do not act with or endorse the services of any supplier or consultant and will not pay any costs, commission or fees that they may charge you to make an application.

You must complete the form yourself and apply directly to us.

Help with governing documents

A governing document sets out in writing how an organisation works. It may be called a number of things, such as a constitution, set of rules or trust deed. It explains what your organisation is set up to do and how it does it.

We need to be sure that the organisations we fund are set up properly and able to manage a grant. Considering an organisation's governing document is one way we do this.

Schools, health bodies and town or parish councils are statutory bodies, while registered charities and companies are regulated, so we do not need to see their governing documents. However, we need to check other organisations' governing documents to make sure we can fund them.

If we offer you a conditional grant and then find we cannot fund your organisation, we will have to withdraw our offer. So if you are a new voluntary or community group, or have not applied to us before, we recommend you think about whether you may need some help and advice on writing your governing document before you apply.

We have published a 'Good governance guide', which explains why the way you run your organisation is important to us. You can get this from our website or advice line.

Appendix M – Santander Foundation Grant Application Guidelines

*This grant does not have a standard application form. The cover page to the application has been sent to the staff of the Commonside Community Development trust or can be found at the following web address: http://www.santanderfoundation.org.uk/howtoapply.aspx

Start by downloading the cover sheet from here you can then use this as a checklist before sending off your application

You need to write us a letter (2-3 sides of A4) on the headed notepaper of your charity which should include your registered charity number or whatever is appropriate for your charitable status. The letter should include the following:

- How much you are asking for?
- What will this pay for? Include a simple budget detailing the main costs.
- How will disadvantaged people directly benefit? Include an estimate of the long term difference this grant will make and how many people will directly benefit.
- How does this meet one or both of our charitable priorities?
- If the funding is for an existing or ongoing project, tell us about your funding strategy and what the project has achieved so far.
- If the funding is for a new project, tell us how you identified the need for this piece of work.
- If you are asking for revenue funding for salaries or running costs tell us what your funding strategy is to replace this funding at the end of our grant.
- If applicable, which other funders are you applying to?
- Make sure the letter is signed by two people, one of whom must be a trustee of the charity.

If it helps explain what your project will do, you may want to include a flyer, newsletter or other sample training material that is produced for the beneficiaries.

Please do not include:

- Annual reports and accounts
- DVDs or CDs
- Business plan or constitution
- Any other bulky items, plastic binders or covers.

If you want confirmation that we have received your application, please enclose a self-addressed postcard or envelope with your application letter. We will post this to you when we open your application.

If you do not receive any other correspondence from us within six weeks then you should assume that your application has been unsuccessful.

We regret that due to the very high volume of requests received, we do not notify unsuccessful applicants or offer feedback on why your application has not been successful.

We regret that we cannot accept online or e-mailed applications.

Grant Fraud

The Santander Foundation takes grant fraud very seriously as this diverts scarce resources and support away from legitimate charitable causes. We appreciate your help in ensuring that all the grants that we make are used for their intended charitable purpose. In those cases where we believe grant fraud has taken place we will request repayment of the grant and will not accept future applications from the charity or individual concerned.

Data usage

As a necessary part of the application process the Santander Foundation Trust will be collecting data about your charity. We may use this information as part of the process of monitoring the use of those grants. From time to time The Santander Foundation may share the information with other grant providers and external auditors for the following purposes:

- Determining, preventing or detecting crime
- Ensuring that no one individual is receiving multiple grants as part of our external auditing requirements

We will not keep your information on file for longer than we need to. In usual circumstances your file will be shredded after 7 years.

By sending us an application you give your explicit consent for us to use data relating to your organization for the purposes outlined here.

Appendix N – The Salix Efficiency Loans Scheme 2 Funding Application Guidelines

SALIX FINANCE LTD

SALIX ENERGY EFFICIENCY LOANS SCHEME

Application Notes – January 2011

1. Introduction

Salix Finance Ltd ("**Salix**") is an independent, publicly funded company, set up in 2004, to accelerate public sector investment in energy efficiency technologies through invest to save schemes.

Following the success of its previous public sector 100% loans schemes, which allocated £63m of interest free loans during financial year 2009-10, Salix is pleased to be able to launch a further loans scheme, with initial funding of £4.5m, which is to be provided to public sector bodies in England (excluding Central Government Departments, their Agencies and NDPBs).

2. The Salix Energy Efficiency Loans Scheme 2 (SEELS2) (the "Scheme")

The Scheme allows public sector bodies to apply for an interest free loan to finance up to 100% of the costs of energy saving projects meeting the criteria set out in paragraph 4 below. This initial tranche of loans will be paid back to Salix by direct debit on a 6 monthly basis over a period of 4 years, commencing in March 2012.

The application process will be in two stages:

- The application, project assessment and commitment to fund from Salix.
- The completion of the project with set up of the loan and payment of the money (unless Salix agree to fund on an interim payment basis – see further below).

3. Timing

The funding can be applied for in this current financial year only, ending on 31 March 2011. **Applications will be processed on a first come first served basis until all funds are allocated so the sooner an application is made then there is a greater chance of obtaining**

the required funding. Once a project is accepted for funding by Salix, the applicant has up to 9 months to complete the works from the date of a commitment letter from Salix agreeing to finance the projects applied for in the application form.
The application form can be found on the Salix website by clicking here. The application form should be completed, signed and sent to: SEELS, Salix Finance 25 Southampton Buildings London WC2A 1AL.

An example of the application form can be found at Annex I.

4. Project Criteria

Projects must comply with the following criteria:

- the project must pay for itself from energy savings within a maximum 5 year period
- the cost of CO_2 must be less than £100 per tonne over the lifetime of the project
- the project must be "additional" (see below)

There is a minimum value for any single project of £500 and a total minimum application and loan value of £5,000.

To help assess whether projects meet the payback and £100/tCO_2 criteria, Salix provides a Project Compliance Tool. The Project Compliance Tool can be found on our website by clicking here. It is an easy-to-use *Excel* based tool which, once clients input basic information (project costs, estimated savings, technology type and building life expectancy) automatically calculates whether the project is compliant (Note – this does not mean that the application will be approved or funding granted). The Project Compliance Tool contains a list of all the technologies currently funded by Salix. For ease of reference, these are also listed in Annex II at the end of these application notes. The completed Project Compliance Tool should be submitted to seelsapplication2@salixfinance.co.uk

There are specific Project Compliance Tools to be used for CHP and for technologies that result in a change of fuel (dual fuel tool). These are available on request to the SEELS team.

Projects must also be "additional" – i.e. would not have happened without this funding.
There are a number of criteria that are used to assess whether a project is "additional", including:

- Is the project required by legislation? If so it is "not additional".
- Is it required by Building Regulations or planning officers (e.g. requirement for a percentage of electricity demand in new buildings to be met by onsite renewables)? If so, it is "not additional".
- Has it already started or has funding already been agreed? If so it is "not additional".

If the answer to all of the above questions is NO then the project can be funded under the Scheme. Salix looks to self certification for additionality, although it will be confirmed if an audit is undertaken of the project.

5. Eligibility

Any PSB (excluding Central Government departments) who receive the majority of their income directly from the public sector can apply. Only those projects where the resultant energy savings, over the lifetime of the project, go directly back to the public sector and the public sector gains a direct financial benefit are eligible. Further details on the definition of a public sector body are available on the Salix website.

An example of an ineligible project would be an outsourced estate management contract in which the outsource supplier paid the energy bills and benefitted from any savings achieved from the project. However, if the energy bill was a pass through under the contract and the public sector benefitted from the energy savings, then the project would be eligible.

6. Responsibilities and competence

Salix assumes that the applicant and/or the partner(s) they are working with are competent and fully responsible for the projects to be funded. This may include but is by no means limited to:

- project identification & development
- establishment of firms costs and calculated estimated savings
- reasonable project sequencing and due care to ensure no double counting of savings when considering multiple projects on the same site
- selection of suitable supplier(s)
- project delivery including project management
- post project completion activities including any verification of savings

7. The application process

Preparing your application

You can apply for loan funding for more than one project in a single application.

Clients should be in a position to be project ready and have clear costs and savings identified with all internal approval needed in place to proceed. Your application must include:

- a completed application form; and
- a completed Project Compliance Tool, listing all the projects for which you are seeking funding.
- where possible and for project values increasing over £20,000, the client should support the application with any internal business case paper work available, supplier quotations plus saving calculations
- for projects over £100,000 ,a full business case will be submitted to support the application and a Salix template is available

Only those projects that meet the criteria outlined in paragraph 4 will be funded, subject to final approval by Salix and availability of loan funding. Please complete the application form and print it out for signing. The completed Project Compliance Tool should be sent electronically to seelsapplication2@salixfinance.co.uk and the completed application form in hard copy, signed by an authorised official and sent to SEELS 2, Salix Finance Limited, 25 Southampton Buildings, London WC1A 1AL.
Salix may provide loan funding for projects where the applicant makes a contribution to the cost in order to make the project compliant. This information and level of contribution must be declared when making the application.

In certain circumstances where applicants have confirmed their commitment to a project(s) and then withdraw or change the project(s) there may be a one off charge made by Salix to cover technical and administrative costs incurred.

8. Completing the Project Compliance Tool

In order to complete the Project Compliance Tool, you will need to know:

- the date of expected commencement and completion of the project(s);
- the expected life of the building in which the project is due to be implemented;
- Salix funding requested for each project including any appropriate sub-metering;
- Salix funding requested expressed as % contribution of the total project cost (where a client is not asking Salix for the full amount of the project);
- the average price expected to be paid for energy used in the project over the next 5 years;
- the load used by the existing equipment prior to the change and the load after installation of the new technology so you can enter the annual kWh saving; from the above, the % kWh you are projecting to save.

Once you have input this information the Project Compliance Tool tests that each project will pay for itself within 5 years, that the cost of CO2 is less than £100 (per tonne) over the lifetime of the project and that the project payback is shorter than the expected future life of the building. The final column indicates whether or not the project meets the compliance criteria.

With regards to energy price, please bear in mind that over the course of the next 5 years energy prices may change and the figure used should be one you believe your organisation will be paying, on average, during the period.

All requested data must be completed on the Project Compliance Tool or the application will not be successful.

Provided a project meets the Scheme's compliance criteria, project costs can include installation costs and the cost of project managing the installation if this is required, i.e. the cost of a consultant to manage the implementation and completion of a project.

In particular for larger projects, we also allow and would recommend that the cost of any appropriate sub metering be included as part of the total project cost. We would see this as very beneficial to support the future monitoring of actual consumption and associated savings be it for internal or external verification.

If your organisation cannot reclaim VAT, this should be included as part of both the project cost and fuel costs. If VAT can be reclaimed, it should be excluded from the calculations.

9. Processing the application

Salix will assess your application, your business case and the projects submitted on the Project Compliance Tool to ensure they are realistic. We will aim to process applications and inform you of the outcome within 2 weeks.
Salix will also carry out a technical check on the details provided which may lead to a request for further information. It will not be possible to process the application until this information is provided and agreed by Salix.

Confirmation of the loan funding will be done in writing from Salix by way of a commitment letter outlining exactly what has been agreed. A copy of this letter must also be signed by the authorising officer and returned to Salix.

Salix may, in certain circumstances, agree to provide interim/stage loan funding for a particular project(s) during implementation and before completion, perhaps to tie in with the payment profile which you the applicant have agreed with your external suppliers. You must let Salix know if this is something you require and Salix will consider your application as such. If Salix does agree to provide such interim/stage loan funding and the application is successful, a loan agreement and direct debit mandate must be entered into by the PSB and Salix before the first interim payment can be released.

10. Processing the loan agreement

Once projects reach completion, applicants will be asked to submit to Salix a signed and authorised completion certificate for the final costs of the works. This certificate can be found on the Salix website by clicking here. Subject to the final costs remaining within project compliance criteria, a loan agreement will then be issued by Salix and sent for signature and return, (unless a loan agreement has been issued and entered into prior to this, in the case of agreed interim/stage payments), together with a direct debit mandate.

Where there are changes in the final costs and/or savings to be achieved then it will be necessary to submit a revised project compliancy tool for reassessment before final payment is made.

The loan agreement will identify the value of the loan, the criteria under which it is being made and the dates on which the loan has to be repaid. Once the signed loan agreement

and direct debit mandate are returned to Salix with the Public Sector Body's bank account details, the funds will be paid into this account and the loan set up. A copy of a typical loan agreement can be seen below. It includes the direct debit authority, which must also be completed for the loan to be set up.

The loans must be paid back to Salix by direct debit every March and September over 4 years in 8 equal instalments. The 1st direct debit will be originated by Salix at the start of March 2012.

Experience to date has shown that the majority of projects funded by Salix are actually expected to recoup their cost in energy savings in comfortably less than 4 years.

11. Support and Advice

Salix has set up a support team to assist Public Sector Bodies with their applications. This team will be able to provide advice on how to complete the forms and how to work out the input figures needed for the Project Compliance Tool. Please email enquiries to seelssupport2@salixfinance.co.uk and the support team will respond either by email or telephone. Please remember to include your personal contact details on the email.

In addition to the support provided by Salix for completing your application, additional support may be available from consultancy and advice companies or technology suppliers. If this support is in connection with implementing the project, any costs associated with obtaining it can be added to the project cost as long as the project remains compliant. The application form must though be submitted by the PSB and not by the adviser.

12. Audit

For a selection of applications, Salix will need to check the supporting documentation for the project and the calculations which have been made to estimate the energy savings that each project is forecast to achieve. We expect this type of documentation to form part of the project file, which will be kept and maintained by you throughout the project implementation process and for the term of the loan, which will also include procurement details and appropriate external invoices. Salix may also request post project data to understand the level of actual savings achieved against those forecasts.

13. Background notes

- Salix has supported over 6,500 energy saving projects to date. On average, these have a technical payback period of 3.6 years and a lifetime cost of CO2 of £47.50 per tonne lifetime. It is therefore believed that, on average, successful applicants will benefit with a standard 4 year cash repayment profile.
- Funding will be allocated on a 1st come 1st served basis as long as projects are accepted. Early application is therefore strongly recommended.
- For larger projects, interim/stage payments may be possible and this will be agreed on a case by case basis. If a project is not completed then all interim payments made must be returned immediately.

- Salix will be monitoring progress of the projects once loan funding is agreed in order to ensure that project completion is progressing as expected.
- Projects which increase in cost to the extent that they are no longer compliant with the Scheme's criteria cannot be funded unless the PSB is prepared to cover the additional costs. Project assessments at the start therefore need to be thorough and project management during the installation needs to be well controlled.
- Projects not completed within the timescale agreed will also not be loan funded.
- In very rare circumstances, Salix reserves the right to amend any of the requirements in respect of deadlines and will confirm any change in writing to the specific applicant. This amendment will not be transferable.

Frequently Asked Questions

Q: How do I calculate current energy use if a building is not metered?
A: Apportion the total bill on a square meter basis
A: Refer to ECG 54 which provides useful details to assist.

Q: How do I calculate energy savings?
A. Different technologies save different amounts of energy. You may refer to GPG 312 for typical energy savings. However, as set out in section 6, the applicant and/or the partner(s) involved should be competent and fully responsible for the projects to be funded including the establishment of calculated savings.
A: GPG 233 may also provide useful information about different projects.

Q: Where a project is currently underway, can we still apply for a loan?
Q: We have recently completed a project; can we still apply for the loan?
A: This loans scheme is designed for new projects only and unfortunately those projects already started or completed are not eligible.

Q: Should VAT be included within the calculation?
A: If you cannot reclaim VAT the disallowable element should be included as part of the project cost to be shown on the Project Compliance Tool. If VAT can be reclaimed, it should be excluded from the calculations, as the VAT paid to your suppliers can be reclaimed from HMRC.

Q: Will there be any extension to the 9 month completion deadline?
A: All projects must be completed within 9 months of the date of the commitment letter from Salix, unless by express agreement from Salix (which will only be given in exceptional circumstances).

Q: What is the maximum amount a public sector body can apply for?
A: There is no maximum application limit, although Salix may need to review very large applications to ensure a fair spread of loan funding across the public sector. The total value of funding is also limited for this scheme which will determine the amount available.

Q: The public sector body is using a consultant for identifying projects and assisting with the application, how are their costs included within the Project Compliance Tool?
A: Consultant costs for assisting with the application and Project Compliance Tool can be included.

Q: The public sector body is using a consultant to project manage the implementation of the project through to completion can this cost be included?
A: The cost of a consultant to manage the successful completion and commissioning of a project can be loan funded. As long as the project remains compliant all of these costs can be included in the calculations.

Q: Please can you advise if an Automated Monitoring and Targeting System falls within the parameters of the funding available? If so, which "technology type" should be applied?
A: Unfortunately, automatic Metering M&T Systems (AMS) cannot be loan funded as a separate project ('Technology Type') on the Project Compliance Tool. Of themselves AMS do not save energy, they lead to the identification of projects which do. However, because of this they may be loan funded as part of another energy saving project (by adding it to the capital cost of the existing project), providing that, overall, the project remains compliant.

Q: We are wishing to replace oil fired boilers with gas ones. We have a rebuild programme which will commence soon. Any new boilers would be used to heat the current building and then used for any new build as it comes on stream. Under this programme is this allowable?
Q: If the new build is not ready in time, can measures such as 'Office equipment improvements' or perhaps 'Voltage reduction equipment' be applied to an existing building and then transferred to the new building when ready, assuming it is compliant?
A: Yes, if the equipment is suitable to be moved, then the lifetime of the building can be taken as the lifetime of the new building the equipment is moved to. In signing the application form however, the applicant will be self certifying the reuse of the equipment and hence the extended lifetime.

Q: We are an independent provider/training company but we receive more than 50% of our funding from the LSC- are we eligible?
A: Unfortunately independent providers/training companies are not eligible for this scheme.

Q: We provide accommodation for our students can we carry out energy efficiency projects in these areas.
A: This will depend on who benefits from the energy saving projects. If the students gain from lower rents or energy charges then these projects are not eligible. If the organisation benefits and it is not passed to the students then the projects are eligible.
A: However if you are a Specialist Further Education College where the accommodation is seen as part of the learning process, this would be eligible.

Q: We are a consultancy firm who are working with a public sector body on energy efficiency are we able to submit an application on their behalf?
A: The application and the Project Compliance Tool must be signed and submitted by the public sector body. It will not be considered acceptable if it comes from any other source. However the consultancy can prepare the application and submit it to the public sector body for signing and submission.

Q: Do we have to go through a tender process with suppliers before submitting our application?
A: If you have the time to carry out this process then it would be useful but it is not essential for the application stage.

Q: Do we have to be totally accurate concerning our project costs on the application?
A; It is hoped that if you obtain an estimate that this will be fairly accurate. However payment will only be made against the final completion certificate submitted at the end of the project.

Q: Why is the money only being paid out at the end of the project?

A: Experience has suggested that there have been issues arising with project changes and changes in costs during implementation and it was therefore considered to be better from a control aspect to make payment against a completion certificate at the time of project completion.

Q: I want to apply for a large value project which can be completed within the 9 month deadline but my supplier is demanding interim payments. Are these available?
Q: The supplier requires some payment in advance how should this be met?

A: In certain circumstances Salix may agree to interim/stage payments in order to assist. The documentation required in these instances will be different from that shown on the website and included as part of these application notes. Contact the Salix helpline for further details seelssupport2@salixfinance.co.uk

Q: What if I apply to carry out a project but do not complete it within the timescale?
A: If it is not completed within 9 months of the date of the commitment letter from Salix, then funding will not be paid, unless by express agreement an extension has been agreed

Q: What if the initial figure of £5 million allocated to this scheme is oversubscribed?
A: Unfortunately if there is an oversubscription then projects will not be accepted and funding will not be confirmed.

Q: I am considering a project but I am not certain what I should include for this on the Project Compliance Tool.
A: Please contact the helpline by emailing seelssupport2@salixfinance.co.uk

Q: If I have further questions, who should I ask?
A: Please make full use of the helpline by emailing seelssupport2@salixfinance.co.uk Salix are there to support you and to help you complete your application, as well as providing technical support.

Q: Is there any other documentation I can read?
A: We would also refer you to the Carbon Trust website, ECA website, Buying solutions website and the ESTA website.

Q: What paperwork do I need to keep for audit purposes?
A: You will need to keep all relevant documentation related to your procurement procedures and, for each project, the relevant supporting business case.

Q: What if we complete earlier than the date we specified on the Project Compliance Tool
A: You can submit your completion certificate at this earlier date.

Q: What if we find we cannot complete all of the projects submitted within the timescale
A: You must advise Salix immediately of those projects that will not be completed within the timescale. You should continue with those that you are able to complete on time. You will be sent a new letter of commitment.

Q: Can I submit a further application at a later date before 15 March 2011?

A: Yes, providing that funds are still available at that time. We encourage clients to make their full application as early as possible before the closing date.

Q: Having made an application, we find that we will not be able to complete any of the projects.
A: You must advise Salix immediately, who will discuss the process of withdrawal with you.

Q: Can I use the savings I make (before repayments start) to invest in new projects?
A: It is up to you to manage the funds locally and make the repayments on time – but recycling internally on further energy efficiency projects is encouraged whenever possible.

Q: If the project value exceeds the financial thresholds specified in the EU Procurement Directives, how will this impact upon my ability to complete the project within 9 months?
A: Many of the technologies supported by Salix funding will fall below these financial thresholds. However, the OGC's ICT and Energy Categories are working with central purchasing bodies to put in place collaborative frameworks for energy efficiency technologies which may either exceed the thresholds and/or have been flagged as a common requirement across the public sector estate. There is already a framework in place for PC Power Management and a Voltage Reduction framework has been available from October 2009.

Further details regarding these opportunities are available on:
http://www.ogc.gov.uk/commodities_procurement_energy.asp.

Q: I have printed off the completed application form and in doing so have automatically sent through the details entered on the form but I now need to make some changes to some of the details submitted. What do I have to do?
A: You can submit a new application form and we will use the data from the last copy we receive to link to the Project Compliance Tool which you send in. As long as the value of project funding applied for balances to the most recent signed application form, they will be processed.

Annex I – Salix Energy Efficiency Loan Scheme Application Form

Confidential

SALIX FINANCE LTD

SALIX ENERGY EFFICIENCY LOANS SCHEME APPLICATION FORM

Instructions for Return of Form	
Electronic copy of project compliance tool to be sent to	seelsapplication2@salixfinance.co.uk
Signed hard copy of this application form to be sent within 2 days of submitting the electronic copy of the project compliance tool to	SEELS2 Salix Finance Ltd 25 Southampton Buildings London WC2A 1AL

Author:

Organisation:

Date Submitted

TABLE OF CONTENTS

Salix Finance Ltd ("**Salix**") is running an interest free loans programme for Public Sector Bodies.

In line with its aim of encouraging sustainable development and investment, the interest free loans are for specific, accepted projects which meet certain criteria and will save energy and reduce CO2 emissions within individual estates.

Public Sector Bodies are invited to apply for this loan funding by completing an application form and Project Compliance Tool and submitting these to Salix.

The loan is intended to cover the total cost of the project(s). The loan is repayable over 4 years in six monthly instalments from the first payment date of March 2012.

The application should be signed by an authorised officer of the Public Sector Body. The final closing date for applications is 15 March 2011, which will be handled on a first come first served basis. Salix aims to notify Public Sector Bodies of the success or otherwise of their application within 14 days of their application. Loans will only be paid by Salix against the submission of a completion certificate and signed loan agreement and direct debit mandate for the projects authorised.

Public Sector Bodies will be required to sign a loan agreement at project completion and agree the prescribed payback amounts and periods for the interest free loan prior to any payments being made to them.

Salix may, in limited circumstances, agree to fund a project on an interim/stage basis during implementation, in which case the Public Sector Body will be required to sign a loan agreement and direct debit mandate before the first payment can be made.

1) PROPOSAL CONTACT DETAILS

1.1 *Organisation Details*

Legal name

Organisation Type

Address

Postcode

Region

Telephone

Website

1.2 *Main Contact Details*

Contact

Position

Department

Address

Postcode

Telephone

Email

1.3 *Authorising Official Details (should be at a senior level)*

Contact

Position

Department

Address

Postcode

Telephone

Email

2) DATA PROTECTION

Providing examples of projects Salix has helped finance is the best way to share good practice and help others identify projects they can undertake.

By signing this application, you are confirming your agreement to Salix sharing information on the projects you propose undertaking with this application between other Salix current and future clients.

3) DECLARATION

In completing and signing this proposal, I/we confirm that:

- I/we are authorised to submit this application on behalf of the applying Public Sector Body.
- We have read the Salix Application Notes and accept the content.
- The information supplied in our application and the Project Compliance Tool is true and correct to the best of our knowledge.
- We agree to Salix sharing information about our funded projects with other current and future clients.
- We understand and accept that no payment will be made if the project is not completed within the agreed timescale of 9 months from Salix's authorisation of the project(s) or if the project otherwise fails to comply with the Scheme's criteria.
- We understand and accept that no payment will be made if the project costs alter and the final costs change so that the project is no longer compliant with the Scheme's criteria.
- We confirm and accept that before any funding is released, we will be required to submit a completion certificate and to complete a loan agreement and direct debit mandate
- We understand and accept that, if the project is funded on an interim payment basis, we may be required to repay the loan early if the project does not progress as expected.
- We confirm that we have submitted electronically the project compliance tool with the value of projects shown below:

Total value of projects included on Project Compliance tool:	£

	Author	Authorising Official
Signed:		
Name:		
Date:		
Position:		

Annex II – Energy saving technologies funded by Salix

The following table provides details of the technologies which are currently supported by Salix and these will be the technologies which will form the basis of this loans programme. It gives an indication of the average cost of each of the projects and the estimated average annual energy savings those projects achieve.

Please note project costs and energy savings will vary from site to site.

A full list of technologies supported can be found on pages 17 -20.

Project Type	No.	Average Tech Cost	Average of Annual Financial Savings	Average Payback
Boilers	284	£16,239	£4,785	3.39
Building Management Systems	228	£13,339	£4,828	2.76
Combined Heat and Power	5	£197,634	£49,744	3.97
Compressor	14	£14,100	£5,270	2.68
Computers and IT	39	£41,531	£24,219	1.71
Cooling	48	£45,922	£14,290	3.21
Driers	1	£2,599	£880	2.95
Energy from Waste	1	£6,795	£1,485	4.58
Hand Driers	10	£9,139	£2,122	4.31
Heating	308	£14,429	£4,489	3.21
Hot Water	62	£7,549	£3,088	2.44
Industrial Kitchen Equipment	31	£8,438	£2,199	3.84
Insulation - Building Fabric	525	£6,954	£1,832	3.79
Insulation - draught proofing	144	£11,331	£3,345	3.39
Insulation - Other	25	£3,764	£1,525	2.47
Insulation - Pipework	440	£4,458	£1,942	2.29
LED lighting	159	£11,624	£3,295	3.53
Lighting - Controls	336	£10,104	£3,199	3.16
Lighting - Upgrades	687	£15,717	£4,169	3.77
Motor Controls	255	£12,547	£6,974	1.80
Motor Replacement	11	£31,684	£8,393	3.77
Office Equipment	6	£10,091	£3,719	2.71
Renewable Energy	4	£66,988	£13,568	4.94
Street lighting	53	£33,105	£9,569	3.46
Swimming	96	£9,884	£6,125	1.61
Time Switches	87	£1,477	£860	1.72
Ventilation	39	£17,827	£5,827	3.06
Voltage Reduction	252	£27,321	£8,089	3.38

Technologies List

Project Type	Work Type	Current PF (Basic maintenance)
Boilers	Boilers - control systems	6.84
	Boilers - replacement condensing	14.44
	Boilers - replacement combination	7.22
	Boilers - replacement modular	10.83
	Boilers - burner management	6.84
	Boilers - retrofit economiser	10.83
Building management systems	BEMS - bureau remotely managed	9.00
	BEMS - not remotely managed	6.84
	BEMS - remotely managed	8.42
Combined heat & power	Gas, Diesel, gasoil engine CHP	15.20
	Biomass CHP	7.60
	Gas Turbine	11.40
Compressor	Compressed Air: air compressor upgrade	14.44
Computers & IT solutions	Network PC power management	3.00
	CRT to flat screen LCD	3.00
	Virtualisation	3.00
	Thin computers	3.00
	Uninterruptible Power Supplies	18.00
	Free Cooling for ICT	13.68
	Evaporative cooling for ICT	13.68
	Energy Efficient File Storage Replacement	3.00
	LED monitors instead of LCD (cost difference)	5.00
	CRT to LED monitors	5.00
	Hot aisle/cold aisle containment	3.00
	Multi Functional Devices	3.00
Cooling	Cooling - plant replacement/upgrade	8.21
	Free cooling	13.68

	Replacement of air conditioning with evaporative cooling	13.68		
Hand Driers	Hand Driers - replacement to more efficient type	4.18		
Energy from waste	Anaerobic digestion	15.20		
	Incineration	15.20		
Heating	Electric to Gas - heating using CHP	15.20		
	Electric to Gas - heating using condensing boilers	14.44		
	Electric to Gas - tumble driers	8.40		
	Heat recovery	10.83		
	Heating - direct fired system	9.50		
	Heating - discrete controls	6.84		
	Heating - distribution improvements	15.20		
	Oil to Gas - boiler fuel switching	7.92		
	Replace steam calorifier with plate heat exchanger	28.50		
	Thermal Stores	18.00		
	Heating - TRVs	6.84		
	Heating - zone control valves	11.88		
Hot water	Hot Water - distribution improvements	18.00		
	Hot Water - point of use heaters	9.50		
Industrial kitchen equipment	Steriliser to dishwasher replacement	10.80		
Insulation - building fabric	Cavity wall insulation	30.00		
	Dry wall lining	30.00		
	Loft insulation	27.00		
	Retrofit single glazing units	8.00		
	Roof insulation	30.00		
	Secondary glazing	7.92		
Insulation - draught proofing	Insulation - draught proofing	29.25		
Insulation - pipework	Heating pipework insulation (internal)	22.50		
	Heating pipework insulation (external)	9.00		
Insulation - other	Radiator reflective foil (external walls)	8.00		
	Automatic/revolving doors	8.45		
	Automatic speed doors	8.45		
	Draught Lobby (internal)	29.25		

	Draught Lobby (external)	29.25
Lighting controls	Lighting - discrete controls	8.89
	Lighting control system centralised	10.26
Lighting upgrades	Electronic ballast with dimming control	11.40
	Replace halogen with HID metal halide	20.00
	HP Sodium including new fitting	20.00
	Compact Fluorescent including changing the fitting	20.00
	Compact Fluorescent using same fitting	10.00
	Induction Fluorescent including changing the fitting	20.00
	T5 lighting including changing the fitting	20.00
	T5 lighting retrofit using adaptors	10.00
	T8 lighting including changing the fitting	20.00
	T8 lighting retrofit using adaptors	10.00
LED lighting	Halogen to LED including changing the fitting	25.00
	Halogen to LED using same fitting	13.00
	Flood lighting to LED including changing the fitting	20.00
	Compact Fluorescent to LED including new fitting	25.00
	Compact Fluorescent to LED using same fitting	13.00
	Incandescent to LED including new fitting	25.00
	Incandescent to LED using same fitting	13.00
	T12/T8 to LED including new fitting	25.00
	T12/T8 to LED using same fitting	13.00
Street lighting	Replace fitting, controls with electronic ballasts	15.00
	Replace fitting with LED	20.00
	Replace controls including electronic ballasts	12.72
	Replace controls but not ballasts	8.89
	Fit centralised controls with electronic ballasts	12.72
	Fit centralised controls but not ballasts	12.72
	Solar powered bollards	10.00
Traffic lights	Replace with LED including new fitting	20.00
	Replace with LED using same fitting	10.00
Motor controls	Fixed speed motor controls	11.40
	Variable speed drives	10.26
	Motors - flat belt drives	11.40

Motor replacement	Motors - high efficiency	15.00
Office equipment	Office equipment improvements	3.00
Renewable energy	Biomass boilers	15.12
	Heat Pump (Air Source)	10.83
Swimming	Swimming pool covers - liquid	8.80
	Swimming pool covers - manual	7.92
	Swimming pool covers - motorised	8.45
Time switches	Time switches	6.84
Transformers	Low loss (cost difference)	30.00
	Low loss	30.00
	Low loss+voltage reduction(cost difference)	30.00
	Low loss+voltage reduction	30.00
Ventilation	Ventilation - distribution	30.00
	Fans - air handling unit	23.75
	Fans - install destratification fans	14.25
	Ventilation - presence controls	6.84
Voltage reduction	Voltage reduction equipment	19.00

Key	Red mean new text or change

Annex III – Completion Certificate

COMPLETION CERTIFICATE

Public Sector Body .....
Name of Authorised Officer .....
Position of Authorised Officer .....

Project ID	Project details	Project cost(s) applied for	Final project cost(s)	Completion date(s)
	Total loan value requested		**£**	

Project Amendments

If there have been any changes to the scope, cost or any other information previously given on compliance tools relating to the above projects, detail the changes in the attached addendum and return with a new compliance tool for the changed projects.

Are there any amendments to the above projects?

- ☐ **Yes**
- ☐ **No**

This document certifies the completion of the above referenced project(s) (the "Project(s)") undertaken by the public sector body named above (the "Public Sector Body") in line with the requirements of Salix Finance Ltd. The Public Sector Body acknowledges that on the signing of this certificate a loan agreement (the "Loan Agreement") will be entered into between the Public Sector Body and Salix Finance Ltd to document the funding that the Public Sector Body is to receive for the Project.

The Public Sector Body acknowledges, understands and agrees that any funding received from Salix Finance Ltd is based on the Public Sector Body having completed the Project(s) within the timescale, costing and remit for the Project as agreed with Salix Finance Ltd and that this Completion Certificate should only be executed when the Public Sector Body is satisfied that the Project(s) has been completed to and in compliance with this required standard.

The Public Sector Body further acknowledges, understands and accepts that Salix Finance Ltd will rely on this Completion Certificate and the certifications and confirmations contained within it when entering into the Loan Agreement and when making any loan to the Public Sector Body. As such, the Public Sector Body acknowledges, understands and agrees that if any confirmation or certification stated in this Completion Certificate proves to be untrue or incapable of being substantiated, that any loan made by Salix Finance Ltd to the Public Sector Body may become immediately repayable in full.

Declaration

I, the above named Authorised Officer, confirm that I am duly authorised by the Public Sector Body to make, and do make, the following confirmations and certifications on behalf of the Public Sector Body.

I confirm that the Project(s) has been completed within the agreed timescale and that the final costs of the Project(s) remain compliant with the terms of our application or as otherwise agreed with Salix Finance Ltd. I further confirm that the Project(s) is, and will at all times during the term of the proposed loan remain compliant with all the conditions and requirements of the Salix Finance Ltd Energy Efficient Loan Scheme.

I also confirm that the Public Sector Body has maintained, and will continue to maintain, clear records of the Project(s), including detailed costings, such that the Project(s) and the records may be audited by Salix Finance Ltd (or an agent or contractor on their behalf) or any governmental body if required.

I confirm that a detailed and diligent assessment of the Project(s) has been undertaken with all due care and skill such that the energy savings and CO2 reductions that the Project(s) was to produce, as agreed with Salix Finance Ltd, can be fully substantiated.

Signed ……

Name (please print) ……

Dated ……

For and on behalf of ……

Addendum
Project Amendments

Project ID	Summary of Change

Annex IV - Loan Agreement

SALIX FINANCE LTD – REVOLVING ENERGY EFFICIENCY LOANS PROGRAMME

PROJECT LOAN SUMMARY

Loan Ref. No:
Public Sector Body:
Main Telephone:
Contact Name:
Contact Position:
Contact Mobile Phone:
Date agreed & Signed Drawdown Date:

Project Description

			Repayments	
Project Costs/Maximum Loan Amount (£)	£	No	Date	Amount
		1	**01/03/2012**	£
Est. Annual Savings (£)	£	2	**01/09/2012**	£
Repayment (% of est. annual saving)		3	**01/03/2013**	£
Annual Repayment (£):	£	4	**01/09/2013**	£
Est. Annual Savings CO2 (tCO2)		5	**01/03/2014**	£
		6	**01/09/2014**	£
Est. Total CO2 Savings (tCO2)		7	**01/03/2015**	£
Cost per tCO2 Savings (£/tCO2)	£	8	**01/09/2015**	£
Technology Payback (years): (Proj cost / Est. Ann Savings)				
Loan Payback (4 years): (Proj &Admin cost/ Ann. Repayment)	**4 years**			

Project Notes:

Other Legal Terms of the Loan See Overleaf

By signing below the Public Sector Body certifies that, to the best of its knowledge, the above information is true, complete and accurate and the Public Sector Body agrees to be bound by these terms (including the terms and conditions attached overleaf) for the term of the Loan.

Signature of Applicant .....
For and on behalf of:

Signature of .....
For and on behalf of:
SALIX FINANCE LIMITED

TERMS OF LOAN

1. DURATION

These Terms will come into effect on the Drawdown Date and will continue until the Loan (together with all other sums due under these Terms) is repaid in full.

2. THE LOAN

2.1 The Loan shall be unsecured and interest free (other than any default interest which may become due pursuant to Clause 2.4) and shall be advanced by Salix Finance to the Public Sector Body on the Drawdown Date.

2.2 Salix Finance's obligation to make the Loan is subject to the condition that on the Drawdown Date no Event of Default or other breach of these Terms is continuing or would result from the proposed Loan.

2.3 The Public Sector Body shall, irrespective of any energy savings achieved or the suitability of the Project and whether or not the Project (or any assets comprised or utilised in the Project) remains under the control or ownership of the Public Sector Body, pay back the Loan to Salix Finance in the instalments and on the dates detailed on the Project Loan Summary, unless otherwise agreed in writing by Salix Finance. The Public Sector Body may not re-borrow any amount of the Loan which has been repaid. The Public Sector Body may repay the full outstanding balance of the Loan (together with any other sums which may be due under these Terms) at any time on giving Salix Finance 14 days notice in advance.

2.4 If the Public Sector Body does not pay any sum it is obliged to pay under these Terms when it is due, the Public Sector Body shall pay interest on that unpaid amount from time to time outstanding at the rate of 2% above the Bank of England's base rate (from time to time) for the period beginning on its due date and ending on the date Salix Finance receives it, both before and after judgment.

2.5 All payments that the Public Sector Body is required to make under these Terms shall be made by Direct Debit and the Public Sector Body must complete and return to Salix Finance the Direct Debit mandate attached to these Terms. All such payments must be made in full, without any deduction, set-off or withholding.

2.6 Any payment which is due to be made on a day which is not a Business Day shall be made on the next Business Day in the same calendar month (if there is one), or the immediately preceding Business Day (if there is not).

3. OBLIGATIONS OF THE PUBLIC SECTOR BODY

3.1 The Public Sector Body shall only use the Loan for the Project or the repayment of capital expenditure and other expenses previously approved by Salix Finance in relation to the Project. Salix Finance is not obliged to monitor or verify how the Loan is used.

3.2 The Public Sector Body shall, during the term of the Loan, provide such information and assistance as is reasonably required by Salix Finance.

3.3 The Public Sector Body accepts that Salix Finance (or an agent or contractor on its behalf) may conduct an audit of the Loan to ensure compliance by the Public Sector Body of the terms of the Loan.

4. COVENANTS

4.1 In consideration of the Loan being made and for so long as any amount remains outstanding under the Terms, the Public Sector Body undertakes to Salix Finance:

4.1.1 not to create, or permit to subsist, any mortgage, charge (whether floating or specific), pledge, lien or other security interest on any of its undertaking, property or assets comprised or utilised in the Project without Salix Finance's prior written consent;

4.1.2 that it will notify Salix Finance in writing immediately on the happening of any Event of Default or as soon as it becomes aware that an Event of Default may occur;

4.1.3 that it will maintain or cause to be maintained in full force and effect adequate insurances in respect of all its assets comprised or utilised in the Project against all risks and contingencies; and

4.1.4 that it shall comply, in all respects, with all relevant legislation and regulations in relation to the Loan and the Project, including, without limitation, any state aid regulations.

5. REPAYMENT OF LOAN

5.1 Salix Finance may require all or part of the Loan to be immediately repaid if:

5.1.1 the Public Sector Body fails to pay any monies payable by it under these Terms when due; or

5.1.2 the Public Sector Body fails (other than a failure to pay) to comply with any material term or condition of these Terms or the reasonable directions of Salix Finance; or

5.1.3 any information provided by the Public Sector Body in the application for the Loan or in subsequent or supporting correspondence is found to be incorrect or incomplete to an extent which Salix Finance considers to be material; or

5.1.4 any statement by or on behalf of the Public Sector Body within the Completion Certificate proves to be untrue or incapable of being substantiated; or

5.1.5 there is a failure by the Public Sector Body to keep and maintain the records in relation to the Project as required by Salix Finance; or

5.1.6 the Loan has not been used for the purpose for which it was given; or

5.1.7 a Material Adverse Event shall occur;

and, if any such failure or breach as referred to above is remediable, the same is not remedied by the Public Sector Body within 7 Business Days of a written notice from Salix Finance to do so.

5.2 The Public Sector Body agrees that on receipt of any notice from Salix Finance requiring repayment of all or any part of the Loan under Clause 5.1 that it shall make such repayment within 20 Business Days of receipt of such notice.

5.3 The Public Sector Body shall promptly notify Salix Finance if it becomes aware that a Material Adverse Event may occur.

5.4 If the Loan becomes due and payable as provided by Clause 5.1, the Public Sector Body will reimburse Salix Finance on a full indemnity basis all reasonable costs and expenses, including legal fees, incurred by Salix Finance in connection with the enforcement, or the preservation, of any rights under these Terms and will indemnify Salix Finance against all losses incurred by Salix Finance and attributable to Salix Finance having entered into the Loan, including in liquidating or employing deposits from third parties acquired to effect or maintain the Loan or any part thereof.

5.5 Salix Finance may require the Public Sector Body to repay all or any part of the Loan or may otherwise vary the Terms if:

5.5.1 any law or regulation is introduced or changed, the effect of which makes it unlawful for Salix Finance to fund or maintain the Loan, or allow the Loan to remain outstanding at all or in accordance with the then current Terms; or

5.5.2 any other authority binding on Salix Finance or the Public Sector Body makes it unlawful for Salix Finance to fund or maintain the Loan, or allow the Loan to remain outstanding at all or in accordance with the then current Terms; or

5.5.3 such repayment or variation is necessary in order that Salix Finance or the Public Sector Body complies with any direction, request or requirement (whether or not having the force of law) from any monetary agency or governmental or regulatory authority.

5.6 Salix Finance shall give notice to the Public Sector Body of any repayment or variation required pursuant to Clause 5.5, giving the date for that repayment or variation, which shall be the last date for payment or variation under the applicable law, regulation, regulatory requirement, request or direction.

6. CAPITAL ASSETS

6.1 The Public Sector Body shall not, during the useful life of any Capital Asset and whilst any part of the Loan remains outstanding, sell, transfer or otherwise dispose of such Capital Asset without re-payment to Salix Finance of (at Salix Finance's sole discretion) all or any part of the Loan remaining outstanding.

7. VAT

7.1 Where the Public Sector Body is registered for VAT, the Loan is made exclusive of VAT and no part of the Loan shall be used by the Public Sector Body towards meeting any VAT incurred by the Public Sector Body.

7.2 Where the Public Sector Body is not registered for VAT, the Loan shall include VAT.

8. LAW AND JURISDICTION

8.1 These Terms and the Loan shall be governed by and construed in accordance with English law and each party hereby submits to the exclusive jurisdiction of the English Courts.

9. MISCELLANEOUS

9.1 No amendment or variation of these Terms shall be effective unless made in writing and agreed by Salix Finance.

9.2 Salix Finance may assign any of its rights under these Terms or transfer all its rights or obligations under these Terms by novation to another person.

9.3 The Public Sector Body may not assign any of it rights or transfer any of its rights or obligations under these Terms without the prior written consent of Salix Finance.

9.4 A person who is not a party to these Terms cannot enforce or enjoy the benefit of any term of these Terms under the Contracts (Rights of Third Parties) Act 1999.

9.5 The Public Sector Body agrees that Salix Finance may appoint one or more agents from time to time to carry out its obligations and exercise its rights under these Terms.

10. DEFINITIONS AND INTERPRETATIONS

10.1 The definitions and rules of interpretation in this Clause apply in these Terms.

"Business Day" means a day (other than a Saturday or a Sunday) on which commercial banks are open for general business in London;

"Capital Asset" means any item of equipment or other asset which has, or any two or more similar items which collectively have, a purchase value of five hundred pounds (£500) or more and which:

(a) on the date of its or their purchase has or have a useful life of more than one year; and

(b) is or are purchased wholly or partly out of the Loan or such purchase is being re-financed out of the Loan;

"Completion Certificate" means the certificate given by or on behalf of the Public Sector Body certifying certain matters in relation to the completion of the Project;

"Drawdown Date" means the date shown as such on the Project Loan Summary or such other date on which the Loan is made, or is to be made;

"Event of Default" means any of the events set out in Clause 7.1;

"Loan" means the amount advanced by Salix Finance to the Public Sector Body (or such part of it as is for the time being owing by the Public Sector Body to Salix Finance) under Salix Finance's Revolving Energy Efficiency Loan Scheme to fund or re-finance the Project, the maximum amount of which is detailed on the Project Loan Summary;

"Material Adverse Event" means any event or circumstance which is likely to materially and adversely affect the Public Sector Body's ability to perform all or any of its obligations under, or otherwise comply with, these Terms;

"Project" means the project operated by the Public Sector Body and approved in advance by Salix Finance to assist in the reduction of energy use through the uptake of energy saving technologies, as detailed on the Project Loan Summary;

"Project Loan Summary" means the summary of the Project and the Loan attached to the front of these Terms;

"Public Sector Body" means the Public Sector Body named on the Project Loan Summary, and its successors or permitted assigns;

"Salix Finance" means Salix Finance Limited (a company limited by guarantee and not having a share capital) registered in England and Wales under company number 5068355, the registered office of which is at 65 Kingsway, London WC2B 6TD (and its statutory successors assigns and transferees);

"Terms" means the terms and conditions relating to the Loan and set out in this document, including the Project Loan Summary and by reference also include the Commitment Letter and the Completion Certificate and all other terms and conditions of Salix Finance's Revolving Energy Efficiency Loan Scheme;

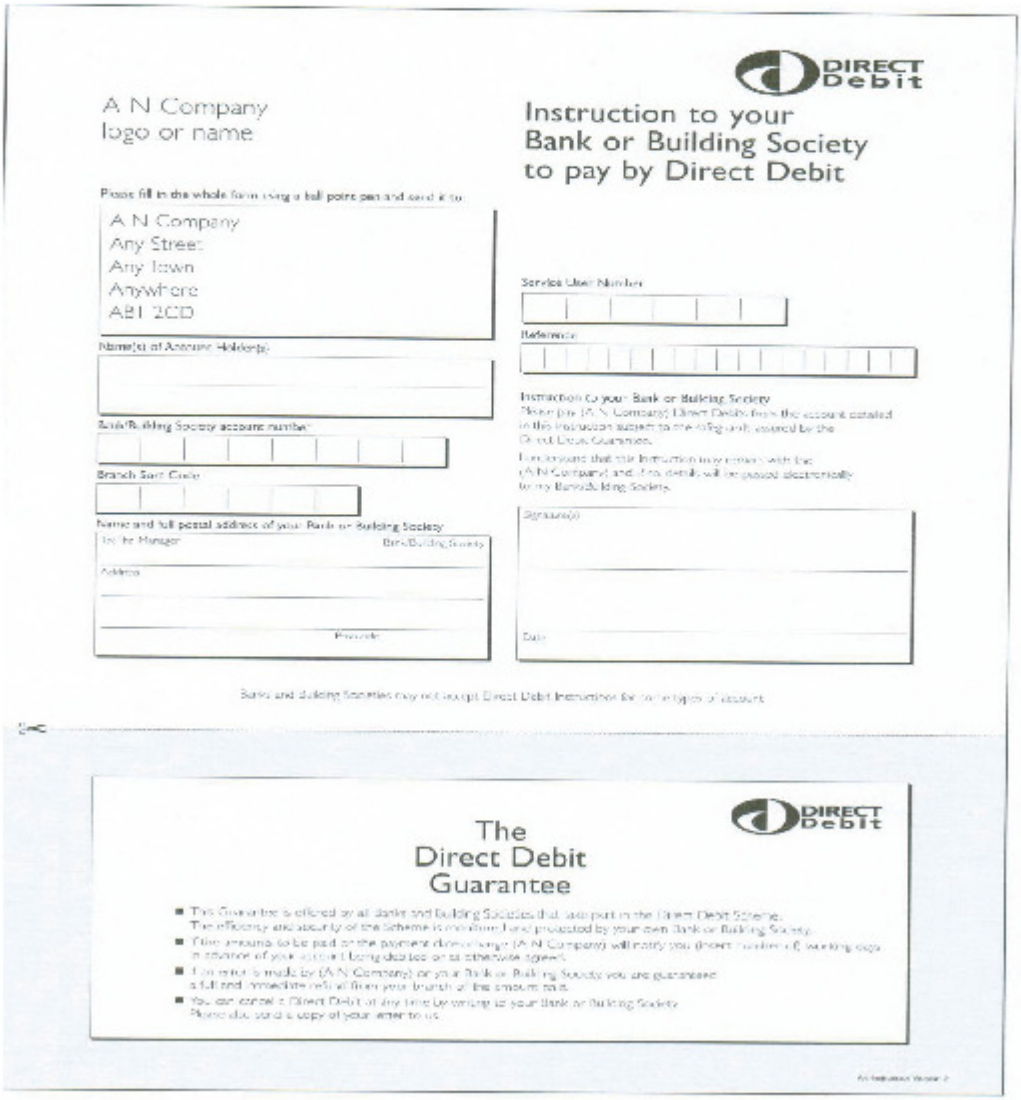
"VAT" means value added tax payable by virtue of the Value Added Tax Act 1994 and any similar tax from time to time in addition to it, replacing it or performing a similar fiscal function.

10.2 Words in the singular include the plural and vice versa.

10.3 A reference to a person shall include a reference to an individual, firm, company, corporation, unincorporated body of persons, or any state or any agency of any person.

10.4 A reference to these Terms (or any provision of it) or any other document shall be construed as a reference to these Terms, that provision or that document as it is in force for the time being and as amended, varied or supplemented in accordance with its terms or with the agreement of the relevant parties.

10.5 **A reference to a "regulation" includes any regulation, rule, official directive, request or guideline (whether or not having the force of law) of any governmental, inter-governmental or supranational body, agency, department or regulatory, self-regulatory or other authority or organisation.**



DIRECT Debit

A N Company
logo or name

Instruction to your
Bank or Building Society
to pay by Direct Debit

Please fill in the whole form using a ball point pen and send it to:

A N Company
Any Street
Any Town
Anywhere
AB1 2CD

Name(s) of Account Holder(s)

Bank/Building Society account number

Branch Sort Code

Name and full postal address of your Bank or Building Society

To: The Manager — Bank/Building Society

Address

Postcode

Service User Number

Reference

Instruction to your Bank or Building Society

Please pay (A N Company) Direct Debits from the account detailed in this instruction subject to the safeguards assured by the Direct Debit Guarantee.

I understand that this Instruction may remain with (A N Company) and, if so, details will be passed electronically to my Bank/Building Society.

Signature(s)

Date

Banks and Building Societies may not accept Direct Debit Instructions for some types of account.

DIRECT Debit

The
Direct Debit
Guarantee

- This Guarantee is offered by all Banks and Building Societies that accept instructions to pay Direct Debits
- The efficiency and security of the Scheme is monitored and protected by your own Bank or Building Society
- If the amounts to be paid or the payment dates vary, (A N Company) will notify you (normally 10 working days) in advance of your account being debited or as otherwise agreed.
- If an error is made by (A N Company) or your Bank or Building Society you are guaranteed a full and immediate refund from your branch of the amount paid.
- You can cancel a Direct Debit at any time by writing to your Bank or Building Society. Please also send a copy of your letter to us.

Appendix O – Lux Readings

Room	Sunlight Avg. Lux	Artificial Lighting Avg. Lux
R1	114	120
R4	94	115
R5	87	111
R13A/B	81	95
R15	121	119
R16	118	112
R17	118	113
R19	112	113
R20	122	125
R21	114	113
R22	120	122
R23	115	120
R24	111	119
R25	127	127