

SADBERGE APPLICATION TO PARTICIPATE IN THE LOW CARBON COMMUNITIES CHALLENGE

Section 1: General information

Project title	Sadberge Carbon Reduction Project
Name of proposed community	Sadberge

Name of lead contact	Alastair Mackenzie
Job title	Clerk to Sadberge Parish Council
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Are you applying for Phase 1 or Phase 2? (If Phase 1, please also attach LCIF application form)	Phase 2

Section 2a: The community

Please describe the community working with you on this application.

Sadberge is a rural parish in the Borough of Darlington in the north-east of England. The parish of Sadberge consists of the village of Sadberge and a small number of farms and other dwellings in the surrounding countryside. It has approximately 720 residents.

Sadberge Village is a small, pretty village situated just to the north of the A66 between Darlington and Teesside. Darlington is 4 miles to the west, and the industrial area of Teesside and the towns of Stockton-on-Tees and Middlesbrough lie about 15 miles to the east.

The village name derives from the Viking term Setberg, meaning "flat topped hill", and Sadberge was once the capital or Wappentake of the Viking settled area north of the Tees.

The village green extends to the north and south of the crossroads in the centre of the village. St. Andrew's Church is a short distance from the village green, and the well-used village hall another five minutes' walk away on the western edge of the village. There are two pubs, both of which actively raise money for local charities. A Pre-School Group and a daily Coffee Shop operate in the village hall, which is also the venue for exercise classes, Morris dancing sessions, Parish Council meetings, a weekly 'minor ailments' clinic, dinner dances, jazz evenings and a variety of other activities. The annual Sadberge Summer Festival attracts visitors from Darlington as well as village residents.

There are no large companies – or any industry of any kind – situated in the parish, and only a small number of local businesses.

Sadberge's pleasant surroundings and easy access to the A66 make it popular with professional people working in Darlington or Teesside, and the responses to the Parish Plan questionnaires showed that about 80% of the village residents are commuters. Sadberge is also home to a significant number of elderly people, many of whom have lived in the village for a considerable length of time. The number of young families in the village has declined to a low number.

Despite the high number of people who drive out of the village each weekday morning to spend the day elsewhere, Sadberge has a real sense of community. The Sadberge Parish Plan, which was adopted in December 2007 – and was extended in December 2008 to include the issue of wind farms near Sadberge – gives the following four main objectives:-

1. To maintain a sense of village community.
2. To ensure that those village residents who do not have access to cars have access to facilities and services.
3. To keep Sadberge a safe and pleasant place to live.
4. To be environmentally responsible, and in particular to make a contribution towards combating climate change.

In 2007 Sadberge was named the Calor Tees Valley Village of the Year, and in 2008 Sadberge won the title of Calor Northern England Village of the Year.

Further information about Sadberge – including a copy of the Sadberge Parish Plan – can be found on the Sadberge web site at www.sadberge.org.uk.

Section 2b: Describe the action/change already facing the community

Please describe the action or change that is already taking place in the community as a result of climate change.

As part of the implementation of the Parish Plan, the Sadberge Energy Saving Project was started in June 2008. The project is steered by the Sadberge Climate Change Working Group. Support and funding are provided by Sadberge Parish Council, and the project is being carried out in partnership with the Energy Saving Trust.

To date, there have been four main themes:-

- Home insulation and efficient heating.
- Electricity use monitoring.
- Low energy light bulbs for people over 70.
- Infra-red photographs.

Please see Appendix 1 for further information about the Sadberge Energy Saving Project.

The Sadberge Energy Saving Project has been recognised as a leading example of community action to tackle climate change. For example:-

- Sadberge received a special Environmental Award in the 2008 Calor Tees Valley Village of the Year awards.
- The Sadberge Energy Saving Project was short-listed in the 'Most Inspiring Campaign' category of the 2008 North East VCS Awards.
- The Climate Change Working Group was a finalist in the Community Group category of the 2008 Evening Chronicle Environment Awards.

In his role as a Climate Change Working Group member, Alastair Mackenzie has given presentations on the Sadberge Energy Saving Project to a number of events and organisations, including the Darlington Greener Assembly, the local branch of Friends of the Earth, and a 'Going Green in the Third Sector' event.

The Sadberge Energy Saving Project is one of the case studies on the Energy Saving Trust web site at www.energysavingtrust.co.uk.

Sadberge is also affected by two proposals to construct commercial-scale wind farms on the Tees Plain within about 2 - 3 kilometres of the village. In July 2008, the Parish Council asked the Parish Plan Steering Group to extend the Sadberge Parish Plan to cover this issue. After a consultation process including an Open Meeting (at which prospective developers and wind farm opponents presented their sides of the argument) and a questionnaire to Sadberge residents (which got a 43.1% response), the Wind Farms Addendum to the Parish Plan was adopted by the Parish Council in December 2008.

The main conclusion was that the community of Sadberge believes that it is not appropriate to construct commercial-scale wind turbines amongst the settlements on the Tees Plain to the north-east of Darlington. However, the Wind Farms Addendum to the Parish Plan also commits Sadberge Parish Council to take action to try to ensure that if wind farms are built near Sadberge then arrangements are in place to ensure that they cause the minimum possible harm to the local environment and local residents. Representatives of the Parish Council have met Planning Officers to make detailed proposals on (i) a policy covering the number of wind turbines and locations of any wind farms on the Tees Plain to the north-east of Darlington, and (ii) planning conditions that should be imposed on any wind farms in this area. Parish Council representatives have also met one of the prospective developers to discuss possible ways of protecting local residents from 'aerodynamic modulation' noise from the proposed wind farm.

Further information is available on the Sadberge web site at www.sadberge.org.uk.

Section 3: Success criteria.

Using the headings provided, please outline how you meet each of the criteria.

3a: Overall ability to deliver community-wide targets and plans for the area and meet the objectives of the Challenge

The Low Carbon Communities Challenge offers an ideal opportunity to build on the success of the Sadberge Energy Saving Project.

The Sadberge Energy Saving Project has already covered insulation (loft, cavity walls and double glazing) and efficient central heating boilers, so we will move on to address three of the four main domestic sources of carbon dioxide emissions:-

- Personal transport.
- Space and water heating.
- Electricity use in the home.

(The fourth source – non-business air travel – needs to be tackled at a national level rather than a community level.)

Other key themes will be:-

- Community-driven behaviour change.

- Introduction / demonstration of emerging technologies for reducing carbon emissions – in particular, electric cars, solar water heating, heat pumps and solar photovoltaic electricity microgeneration.

There is only space in this section of the Application Form to give a very brief overview of the conclusions of our detailed analysis of these issues. For more details, please see Appendices 3 - 4.

Our analysis of the options for reducing carbon emissions from personal transport, heating and domestic electricity use has identified blockers that, unless addressed, will prevent the delivery of worthwhile carbon savings in these areas. We have also identified approaches to overcoming those blockers, and a key element of the Sadberge Carbon Reduction Project will be demonstrating the effectiveness of those approaches.

In summary, we will:-

1. Use a specific type of car club to introduce electric cars and substitute 'electric car miles' for 'petrol / diesel car miles'.
2. Show that heat pumps can be integrated into existing homes without the need for complete refurbishment.
3. Use community spirit and appropriate provision of information to drive behaviour change in domestic energy use.
4. Use demonstration installations to show local residents the practicality of solar photovoltaic electricity micro-generation and raise awareness of the feed-in tariffs that are being introduced in 2010.

We will also:-

5. Investigate the possibility of installing small-scale wind turbines on the farms in the parish.
6. Continue to encourage and support individual households and public buildings (e.g. the village hall) to install effective insulation (including double glazing) if they have not already done so under the Sadberge Energy Saving Project.

See Appendix 2 for an indicative budget showing how we would use the funding from the Low Carbon Investment Fund.

Personal Transport

Our analysis (see Appendix 3) shows that in a rural 'commuter dormitory' village like Sadberge we cannot expect people to give up personal transport (i.e. cars) in favour of public transport.

In 'Sustainable Energy – without the hot air', David MacKay makes a strong case that the solution is to switch from petrol and diesel cars to electric cars. However, many people will not be willing to buy an electric car because they occasionally need to make journeys longer than the (approximately 100 miles) range of electric cars. Also, at present electric cars are more expensive than petrol or diesel cars, and many people have concerns about the charging infrastructure.

We believe that the solution is to set up a car club that gives people access to electric cars for local journeys and to (a smaller number of) petrol or diesel cars for their occasional longer journeys. Note however, that the structure of the Sadberge Car Club will be somewhat different from that of a conventional car club, because the primary objective will be to substitute 'electric car miles' for 'petrol or diesel car miles'. This means that we will need to make the electric cars available to regular car-users (including commuters) rather than just to people who only use a car very occasionally and can do most of their journeys by public transport.

We will use Low Carbon Communities Challenge funding to (a) cover the additional costs of buying electric cars rather than conventional cars, and (b) set up the necessary charging infrastructure in the village.

Space and Water Heating

In minimising the carbon dioxide emissions from domestic heating, the first priority is to avoid wasting heat. The Sadberge Energy Saving Project has already addressed the issues of loft and cavity wall insulation, double glazing and efficient central heating boilers. In the Sadberge Carbon Reduction Project we will move on to the second priority, which is to switch to lower-carbon heat sources, such as solar water heating and heat pumps.

'Sustainable Energy – without the hot air' points out that in the UK solar water heating can make a useful (but limited) contribution to domestic heating and that in the medium-to-long term the main carbon savings need to come from a switch from burning hydrocarbons to using heat pumps. However, because heat pumps can only provide water at temperatures up to about 55°C (and give better efficiencies at temperatures lower than that), they are best suited to providing space heating via under-floor heating systems. (The issue is heat transfer area – under-floor heating provides considerably greater heat transfer area than radiators.) Installing an under-floor heating system is very disruptive to the fabric and decoration of a house. However, if the use of heat pumps is restricted to new builds and properties undergoing complete refurbishment then there is no possibility of rolling out heat pumps to any significant fraction of Britain's housing stock within the required time-scale.

We believe that the solution is to integrate heat pumps into households' existing gas-fired central heating systems. This is not straightforward. In particular, for technical reasons it is not possible to use a heat pump to raise the water temperature to 55°C and then use a gas-fired boiler to boost the temperature to the 70°C - 80°C required by radiators. Once the gas-fired boiler starts up, the heat pump has to drop out of the system. However, we believe that we have identified an approach – involving, amongst other things, a 'time-sharing' approach to controlling the heat pump and the gas-fired boiler – that will enable a heat pump to be used to significantly reduce the overall annual load on an existing gas-fired boiler. See Appendix 4 for more details.

We will use funding from the Low Carbon Investment Fund to subsidise a number of heat pump and solar water heating installations in Sadberge in order to (a) test and demonstrate the practicalities of integrating heat pumps into existing gas-fired central heating systems, and (b) demonstrate and publicise solar water heating.

Domestic Energy Use

It is clear from David MacKay's calculations in 'Sustainable Energy – without the hot air' that although technology-based measures – electric cars, heat pumps, renewable electricity generation, etc. – are a necessary part of the battle against climate change, they are not sufficient. People are also going to have to change their behaviour to reduce their energy consumption. Behaviour change is needed in a range of areas – including use of public rather than personal transport, travelling by train rather than by plane, etc. – but a good place to start is domestic energy use.

The Government believes that provision of better information about energy use will encourage behaviour change, and has mandated the roll-out of smart electricity and gas meters by 2020. Our experience with lending out the Eco-eye electricity monitors has left us convinced that smart electricity and gas meters do have the potential to deliver reductions in households' energy use, but that the roll-out of smart meters will only bring about the necessary changes in behaviour if

residents are given effective encouragement, support and advice. Simply installing smart meters will result in a short-lived burst of interest, after which most people will revert to their old patterns of behaviour.

Working with the energy supply companies and the gas and electricity distribution network operators, we will use funding from the Low Carbon Investment Fund to pay for the purchase of smart electricity and gas meters for Sadberge homes. We will also set up a web-based monitoring system that allows individual households to track their own electricity and gas use and to view the trend of electricity and gas use by the community of Sadberge as a whole. This monitoring will use concepts developed during the Sadberge Energy Saving Project, such as a household's 'base-line electricity use'.

We regard it as very important to avoid this just being a short-lived 'flavour of the month' exercise, so in order to maintain the community's focus and motivation on this issue we will (a) give regular updates in community newsletters and (b) over the next few years, organise a number of open seminars to enable people to discuss their experiences and share ideas on how to reduce domestic energy use.

Solar Photovoltaic Electricity Micro-Generation

The Sadberge Climate Change Working Group has always taken the view that we need to get everyone involved in the battle against climate change. Just working with the minority of people who are already keen to do their bit is not enough – we need to involve the people who are frankly not particularly interested in climate change and/or who are currently not prepared to take actions that may be inconvenient or uncomfortable. The Sadberge Energy Saving Project has therefore concentrated on actions that make straightforward economic sense (e.g. loft insulation top-ups) or are 'fun' (e.g. Eco-eye gadgets for electricity use monitoring, infra-red photographs of houses).

The recent IPPR report on 'Consumer Power – How the public thinks lower-carbon behaviour could be made mainstream' gives support to our approach. The report describes how a particularly influential sub-section of the population – the 'Now People' – regard climate change campaigners as smug and judgmental, and react negatively to communications that try to make them feel guilty about indulging in high-carbon behaviours. It suggests that low-carbon technologies and behaviours should be presented as 'ordinary and yet special', and recommends using ordinary-looking houses to demonstrate renewable micro-generation systems such as solar panels.

We will use funding from the Low Carbon Investment Fund to subsidise the installation of solar photovoltaic systems on a number of houses spread throughout Sadberge, and will publicise the new feed-in tariff scheme that is being introduced in April 2010.

Small-Scale Wind Turbines

We will investigate the possibility of installing small-scale (e.g. 5 - 15 kW) wind turbines on the farms in the parish. The issue in this case is not financial – the feed-in tariffs being introduced in April 2010 will make small-scale wind turbines attractive investments in their own right – but the fact that the commercial-scale wind farms currently being proposed for the area near Sadberge have made wind turbines a sensitive subject for a significant number of local residents. We would very much prefer to move forward on this via a community consensus rather than risk an acrimonious division over this issue.

Sadberge Village Hall

The village hall is a very important focus for village life. We will use funding from the Low Carbon Investment Fund to (a) install double glazed windows, particularly in the Coffee Lounge, which currently has a large expanse of single glazing, and (b) install a solar photovoltaic system. The solar photovoltaic system will be a particularly visible demonstration of this technology and the cost savings and income from the feed-in tariff scheme will be recognised as a very welcome contribution to the village hall's on-going expenses.

Governance and Project Management

We will set up a Community Interest Company (CIC) to implement the Sadberge Carbon Reduction Project. The setting up of the CIC will be widely publicised throughout Sadberge, and local organisations – and individuals – will be invited to nominate local residents to serve as directors.

The Project Manager will be Alastair Mackenzie, whose previous experience includes process control engineering, business strategic planning, technology project management, a senior management role in research and technology, and running his own (very small) limited company. Alastair 'retired' from his first career in the chemical industry in 2002 at the age of 43, and now spends a good deal of time working for the Sadberge community in a voluntary capacity. He is the Clerk to Sadberge Parish Council, played a key role in the preparation of the Sadberge Parish Plan, and is one of the founder members of the Sadberge Climate Change Working Group. Alastair has indicated that he is willing to take on the role of Sadberge Carbon Reduction Project Manager on a voluntary basis, which will enable us to keep the project management costs to an absolute minimum.

Timetable

As you will have seen from this section, we already have the outline of a plan for an integrated programme of carbon reduction measures for our community. If Sadberge is selected as a participant in the Low Carbon Communities Challenge then we will use the introductory workshop (in early 2010) to consult local residents on the final shape of the plan and to get nominations for the directors of the community interest company.

Assuming that the introductory workshop is held in early February 2010, we will aim to have the community interest company set up and operating by early March.

Key activities for the first two or three months will include:-

- Setting up a system to measure Sadberge residents' use of cars for local journeys, in order to provide a baseline for measuring the eventual substitution of 'electric car miles' for 'petrol and diesel car miles'.
- Firming up the Sadberge Car Club's financial plans (including charging structure) and technical arrangements (e.g. charging facilities, battery performance data collection, etc.).
- Working with renewable energy suppliers and local residents to identify households for the demonstrations of heat pumps, solar water heating and solar photovoltaic installations.
- Doing a survey to find out which Sadberge households are customers of which energy suppliers, and then working with the relevant energy suppliers and the gas and electricity distribution network operators to firm up the plans for rolling out smart meters and setting up the web-based energy use monitoring system.
- Getting double glazing installed in the village hall. (We already have one quote for this.)

One particular target is that we would like our purchase of electric cars to be included with an order that Future Transport Systems intend to place during Q1 2010 for delivery in early 2011.

3b: Deliver integrated approaches

We hope that section 3a above makes it clear that the Sadberge Carbon Reduction Project will use a mix of interventions, including:-

- The introduction of low-carbon personal transport technology (electric cars).
- Practical demonstrations of low-carbon heating technologies (heat pumps and solar water heating) and renewable electricity micro-generation (solar photovoltaic).
- Community-driven behaviour change enabled by smart meter technology and web-based monitoring and communication.

We will continue to work with our local unitary authority (Darlington Borough Council) to ensure that the Sadberge Carbon Reduction Project fits into, and is supportive of, other carbon reduction measures being taken by the Borough Council.

3c: Build on and bring together existing learning, skills and resources

As is shown in section 3a above, our plan for the Sadberge Carbon Reduction Project draws on (a) our own experience from the Sadberge Energy Saving Project, (b) ideas from external sources such as 'Sustainable Energy – without the hot air' and the Institute for Public Policy Research.

For the Sadberge Energy Saving Project we have been working in partnership with the Energy Saving Trust, and the preparation of our plan for the Sadberge Carbon Reduction Project included discussions with a range of other organisations, including the Option C Car Club, Future Transport Systems (who are managing the NE part of the Technology Strategy Board's electric car trial), people involved with the Energy Demand Research Project (EDRP) and suppliers of heat pumps, solar water heating and solar photovoltaic systems.

3d: Recognise communities as places

One of the great strengths of Sadberge is its community spirit. The importance of this is recognised in the Sadberge Parish Plan, in which the first of the four key objectives is "To maintain a sense of village community".

One of the key themes of the Sadberge Energy Saving Project has been taking external ideas and expertise – e.g. the Energy Saving Trust's 'Home Energy Check' questionnaires – and making them specific and relevant to our community. A lot of work has been done by personal contact between Climate Change Working Group members and local residents.

To put it in a nutshell, we are part of our community and can engage with members of our community in a way that would be more difficult for external organisations. This has been an important element of the Sadberge Energy Saving Project, and we intend to continue to work in the same way for the Sadberge Carbon Reduction Project.

3e: Foster community leadership, involvement and partnerships

In a community like Sadberge there is not the distinction between local government and grassroots community organisations that may exist in towns and cities. The parish councillors effectively are grassroots community leaders.

The Sadberge Parish Plan is a good example of the way that community leadership and involvement works in Sadberge. The Parish Plan was initiated – and formally adopted – by the Parish Council, but the plan itself was drawn by a separate Parish Plan Steering Group involving both parish councillors and other members of the community. The preparation process was highly consultative, involving an initial Open Meeting to launch the process, a Parish Plan questionnaire (that got a response rate of more than 75%), four Open Meetings to discuss specific issues concerning the future of our community, and a final Open Meeting to approve the draft Plan. Further information about this is available on the Sadberge web site at www.sadberge.org.uk.

The Sadberge Energy Saving Project is part of the implementation of the Parish Plan, and the Sadberge Carbon Reduction Project will be a continuation of the work in support of the Parish Plan objective "To be environmentally responsible, and in particular to make a contribution towards combating climate change".

To demonstrate the fact that our community supports this application for Sadberge to participate in the Low Carbon Communities Challenge, we have obtained letters of support from the following people / organisations:-

- Sadberge Village Hall Association.
- The Buck Inn Racing Club.
- Marie Kenny, Landlady of the Three Tuns Inn.
- Sadberge Older Aged Persons (SOAP).
- Darlington Borough Council's Ward Councillor for Sadberge and Whessoe.

We have arranged to draw on support from the following organisations / companies:-

- Future Transport Systems, who are running the north-east part of the Technology Strategy Board's electric car trial, have offered to help us with the procurement of electric cars.
- We will have the option of outsourcing the Sadberge Car Club's booking and billing activities to the Option C Car Club.
- Revolution Power (based in Newton Aycliffe) and Access Renewables (based in Middlesbrough) are potential suppliers of heat pumps, solar water heating systems and solar photovoltaic systems.
- Kensington Windows (based in Darlington) are potential suppliers of double glazed windows for Sadberge village hall.
- We will continue to obtain support and advice from the Energy Saving Trust.

With regard to smart gas and electricity meters, we have made preliminary contact with Ofgem's Smart Metering Team, who have put us in touch with the energy supply companies that are participating in the Energy Demand Research Project. From initial discussions with those companies, we have formed a clear view of a practical approach to rolling out smart meters across Sadberge. However, we have still to (a) establish exactly which energy supply companies need to be involved and (b) agree a detailed plan with those companies.

3f: Willingness to learn and capacity to quantify impacts

We fully understand that this is a research initiative, and are very keen to share learning and talk openly about our experiences. We also subscribe to a philosophy of 'pinch with pride' and are very willing to learn from other communities.

Although the Sadberge Energy Saving Project generated some examples of the patterns of electricity use in local households, at present we do not have any proper data on energy

consumption in Sadberge. (Data from historical energy bills is likely to be inaccurate and misleading because many of those bills will be based on estimated usage rather than actual meter readings.)

During the implementation of the Sadberge Carbon Reduction Project, we will measure:-

- (1) The extent to which it is possible to substitute 'electric car miles' for 'petrol and diesel car miles'.
- (2) The extent to which heat pumps and solar heating systems can reduce the load on gas-fired central heating boilers.
- (3) The extent to which installation of smart meters, backed up by a community-driven campaign to support and encourage behaviour change, can reduce the community's total consumption of gas and electricity.

3g: Be replicable

We recognise that the population of Sadberge is smaller than the 1,000 - 20,000 specified in the guidelines, but we believe that the community spirit in Sadberge, combined with our existing work on the Sadberge Energy Saving Project, puts us in a strong position to deliver an effective, integrated programme of carbon reduction measures.

We believe that we have some significant insights into what might block the adoption of some important low-carbon technologies and behaviours, and we believe that we have some innovative, practical approaches to overcoming those blockers. The plan for the Sadberge Carbon Reduction Project is designed to test and demonstrate the effectiveness of these approaches. If we are successful we will be extremely keen to 'spread the word' and help other communities to introduce their own successful programmes of carbon reduction measures.

In particular:-

- We aim to demonstrate a practical way of introducing electric cars – overcoming the issue of their limited range – and to measure the extent to which it is possible to substitute 'electric car miles' for 'petrol / diesel car miles' in a commuter dormitory community.
- We will demonstrate how heat pumps can be integrated with existing gas-fired central heating systems – without having to install under-floor heating – and measure the extent to which using a heat pump in this way can reduce the overall annual load on the gas-fired boiler.
- We will test – and hopefully demonstrate the success of – our ideas on how to harness a sense of community to drive behaviour change in the area of domestic energy use.

We have an established track record of sharing the outcomes of the Sadberge Energy Saving Project with other local communities and organisations.

3h: Be equitable and sustainable

The Sadberge Carbon Reduction Project's demonstrations of low-carbon heating systems and solar photovoltaic micro-generation should encourage other householders to adopt these technologies. We will publicise the benefits of such systems and help interested householders to access funding through other grant schemes.

The improvements to the village hall will provide lasting benefit the community as a whole.

All Sadberge residents will be offered the opportunity to take part in the Sadberge Carbon Reduction Project. Technical limitations will mean that some households will not be suitable for

participation in some aspects of the project (e.g. a solar photovoltaic system needs a south-facing roof), but all residents will be able to engage in some capacity.

The Sadberge Climate Change Working Group will continue with to engage with the residents of Sadberge to develop ideas to reduce carbon emissions in the future.

Section 4: How does your application contribute to the balance of communities?

Sadberge is representative of a community that is ready to go beyond the 'top up insulation and install condensing gas boilers' stage. Improving thermal insulation and ensuring that gas is burned efficiently is a necessary first step – but it is not sufficient. Delivering the required reductions in carbon emissions is going to require the introduction of electric cars for personal transport, the roll-out of heat pumps for space and water heating, the installation of renewable micro-generation systems and behaviour change in domestic energy use. The Sadberge Carbon Reduction Project will investigate and demonstrate how communities should tackle these issues.

A number of Sadberge's characteristics will make the learning from the Sadberge Carbon Reduction Project very relevant to a wide range of communities. These characteristics include:-

- Local residents with a range of views on climate change and the need for reductions in carbon emissions. From the beginning of the Sadberge Energy Saving Project we have recognised that it is not sufficient to work with those people who are already convinced of the need to take action to reduce carbon emissions. We need to get everyone involved.
- Different types of residential property, ranging from very old to very new.
- The need to introduce carbon reduction technologies and behaviours on an individual, household-by-household basis. It is relatively simple for a housing association to decide to install heat pumps in all its properties, but in real communities individual householders need to be convinced to take action.

One special feature of the Sadberge Carbon Reduction Project is that it will demonstrate how to reduce the carbon impact of personal transport (i.e. cars) in 'commuter dormitory' communities where widespread use of public transport is not a practical option. The results of this demonstration will be applicable to a large number of communities, including suburban areas as well as rural villages situated close to larger towns.

We also believe that we have some innovative ideas about the integration of heat pumps with existing gas-fired central heating systems and that these ideas are well worth testing.

Section 5: Additional information

We hope you agree that our action plan describes “an ambitious, integrated programme of carbon reductions” in our area. [See Joan Ruddock’s letter of 28th September 2009.]

Please email this application form to Harriet Festing at LCCAdmin@bre.co.uk by noon on Wednesday 30th December 2009.