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Dumfries & Galloway COUNCIL

THE SOUTHERN UPLANDS PARTNERSHIP

ECO OFFICE PROJECT
MAIN PROSPECTUS

southern uplands partnership
living land, living community

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1 Introduction

The purpose of this document is to outline the vision and practicalities of developing a state of the art low or zero carbon building that will act as a demonstration site for energy conservation and generation technologies and provide a flexible range of open and closed office space, meeting rooms and associated facilities.

The building will be designed to have low running costs, affordable rentals and provide a healthy working environment that will attract tenancies from a range of businesses and social enterprises.

The generic business model proposed for this development is the result of two studies that have been completed by consultants:

The first study completed by Mary Roslin RIBAS examined the outline design, specification and elemental costs of a green building exhibiting a low-zero carbon footprint, state of the art energy saving materials and construction technologies and providing a flexible workspace. The construction and running costs are compared to a conventional building over the life cycle of the project.

The second study completed by Bruce Clarke Associates and Adam Wellings Consulting looked at the feasibility of funding the development and achieving the occupancy levels and return required to make the operation economically viable and sustainable. Reference was also made to the benefits that would be generated for the local community and any partner organisation that may be involved.

The original studies were based on a specific site in Creetown. Despite having a very supportive Community Partner the site had some specific constraints and there was insufficient evidence of demand for office units in this location. This Prospectus demonstrates how the business and construction model could be transferred successfully to an alternative location with the right demand and site profile.

This Prospectus takes both studies to the next level. It includes guidelines on a business model that could be taken forward and outlines the following transferable aspects of the project:

- How the design components of the building could be adapted to a specific site
- The type of arrangements that would need to be negotiated with a willing community partner and/or landowner
- A profile of the type, location and marketing strategy that is most likely to attract tenancies.

The primary purpose of this document is to set out how the project could be developed and implemented. In addition it highlights the economic, community and, environmental benefits that could be generated for the stakeholders. Success is contingent upon finding the right site and community partner and securing sufficient capital funding from a range of grant making organisations.

2 About the Southern Upland Partnership (SUP)

SUP is the lead body that would commission this development, negotiate site and operational arrangements with a Community organisation or Estate Partner and fund the capital costs of the building through applications to a range of grant-making organisations and sponsors.

The Southern Uplands Partnership is a registered charity and company limited by guarantee formed in 1999 with the aim of "keeping people living and working in the Southern Uplands."

SUP encourages partnership working and sustainable rural development and has an open membership of over 150 groups across Dumfries & Galloway, South Lanarkshire and the Scottish Borders where it delivers a range of projects.

Project partners and clients include environmental and economic development agencies, local authorities, communities and businesses.

The organisation is governed by a Board of 12 Directors who support the core staff and oversee progress on core work and projects.
Core funding for SUP has traditionally come from grants, membership subscriptions and donations and been supplemented by income earned from project management.
SUP in common with many other organisations is finding core funding increasingly difficult to secure. For this reason it is now seeking to develop an asset base that will generate an income to help it become more self- supporting

In terms of activities, SUP encompasses the South of Scotland as a whole encouraging cross border networking and a productive exchange of ideas.

SUP staff' initiate and/or deliver projects that address the needs of the Southern Uplands, working with public sector organisations and at the grass roots with businesses and local communities.

SUP endeavours to find new ways of working that unite organisations, individuals and communities bringing people together to progress new ideas, save time and money and attract new funds.

Further details of the scope of SUP activities, current and past projects can be found by visiting the website http://www.sup.org.uk

3 Strategic context of the project

This development is set within the context of International, National and Regional Strategies, some relevant examples of which are referenced below:

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Climate change is the major driver of environmental policy and *Scotland's Declaration on Climate Change* has been signed by the local authority in Dumfries and Galloway.

The Climate Change and Sustainable Energy Act 2006 and the Scottish Government's National Planning Policy is geared to address this challenge.

In similar vein, *The Scottish Government's Economic Strategy published in November 2007* underlines its commitment to the objectives of this project in two of its headlines "Wealthier and Fairer – Smarter- Healthier – Safer & Stronger- Greener"

The Lowlands and Uplands Scotland European Development Programme Axis 1V delivered by Leader+ is headlined "Innovative Governance and Rural Capacity Building" with one of the key Local Area Group (LAG) objectives to "Demonstrate and promote a greener lifestyle." These aims and objectives are a good match with the goals of SUP's development project.

Finally the *Scottish Rural Development Programme* which will be operated through the South of Scotland Alliance is charged with delivering the outcomes of improving business viability, tackling climate change, supporting thriving communities.

Community capacity building in Rural Scotland and developing sustainable communities, social and community enterprises such as the Southern Upland Partnership remain continuing goals of the Scottish Government, Local Authorities and economic development agencies.

The British Government has recently invited interest from Local Councils on the development of *"Eco towns"* reflecting the relevance of carbon emissions in the built environment. Recent representations have also been made in Annandale and Eskdale district of Dumfries and Galloway to create an *Eco Village*.

All this demonstrates that the Eco Office Project proposed by the Southern Upland Partnership has a tangible contribution to make to social, environmental and economic policies of National and Local Development Agencies and the timing is right to take it forward.

4 Project aims and objectives

4.1 Southern Upland Partnership

The project aims to satisfy the Southern Uplands Partnership's organisational objectives and also deliver a range of benefits to a number of different stakeholders that include the local community, workspace tenants and research and educational establishments:

The building and operation of Eco office workspace will provide SUP with an asset base and a valuable income stream, generated from tenancies. This will help SUP to become sustainable and reduce reliance on grant support and project work to fund the organisations overheads.

4.2 Project management objectives

SUP's first objective in 2008 is to locate a suitable site and location with the right demand profile for this development and a suitable community or estate manager with whom to work in partnership.

The second objective, also in 2008 is to raise the necessary funds to support the capital costs of the building from grant-making organisations and to secure the staff and resources required to implement the construction phase of the building.

The third objective in 2008/09 is to secure by tender, an architect and construction company capable of providing the specification of green low carbon building required and completing the project within the specified timescale and budget.

The fourth objective is to ensure that opportunities for local materials and craftsmen are maximised and any training, research or product development opportunities that could benefit the Region are acted upon.

The fifth objective in 2009 is to put in place a marketing strategy that will create demand and attract tenancies of the workspace from the day that the building opens for business and maintain a high annual occupancy level (minimum 70%)

The sixth objective is to establish with a community partner, the best way to manage the operation of the facility from 2010 including tenancies, use of meeting space and visitors.

4.3 Environmental and educational objectives

The project will also advance the environmental credentials of SUP and provide a best practice model of low/zero carbon development that could be replicated in other regions.
The offices will provide a healthy working environment for tenants and the development will act as a demonstration site and educational resource.

4.4 Social and community benefits

The local community will benefit economically from the development which, where possible, will utilise local materials, suppliers and contractors for the construction of the building.
The provision of a high profile state of the art green building will attract tenancies and visitors from both the local area and further a-field. This in turn will increase

spend in the local community providing economic benefits to local accommodation providers, cafes, petrol stations, retail and services.

4.5 Ownership and asset value

SUP would own the building and set up a trading subsidiary to manage its operation.
Provision could be made that the building cannot be sold on the open market and in the event of dissolution of SUP would revert to the local community at a later stage providing a valuable capital asset.

These arrangements will be shaped by the following factors:

- The relationship established with the site owners
- The community/estate partner
- The attitude of funding organisations to the ownership. management and control of the project.

5 Design feasibility - main aims & objectives

The objective of this development was to construct a building on a rural site to provide a high quality working environment, which delivers a mix of accommodation for a range of business occupants. Importantly, the building was to have a very light environmental footprint, including:

- The use of low environmental impact and/or renewable building materials and techniques in its construction, to minimise its impact on the environment, during and after construction.

- Inclusion of the latest technologies available to conserve energy, to create energy from renewable sources and to minimise the emission of CO^2 and unsustainable waste products to the environment.

- The lowest 'whole life' environmental costs possible in terms of the impact of the building on the environment over its expected service life including the de-construction costs of the building and the ability to recycle as many components as possible.

The design feasibility was developed with a linked set of main aims and objectives:

5.1 Maximise the design potential of the site

The site in Creetown, like any other, exhibited a range of advantages and constraints and the principal objective was to maximise the benefit that could accrue to the community from a development on the site.

5.2 Examine renewable energy alternatives

Options for production of energy using wind, solar, ground source, bio-mass and the like are site specific and once again the Creetown site had a specific profile as a result of its location, its size and its relationship to neighbouring properties.

5.3 Replicate at other sites

The ability to repeat a successful exercise in developing a low impact, high quality building that served the needs of a community was regarded as extremely important.

5.4 Examine life cycle costing

The long term impact of the building in terms of construction, environmental running costs and eventual de-construction was the most important factor in terms of design feasibility. This included factoring into the feasibility the long term environmental impact of construction materials and techniques, the footprint of different material choices on the environment and the ability for materials to be re-used following demolition.

5.5 Statutory & planning obligations

Within all of the above, the building had to meet all the necessary planning, building regulation, safety and access requirements imposed by legislation.

5.6 The case for a Low-Zero $C0^2$ building

During the development of the design feasibility a case was built for the construction of a Low-Zero $C0^2$ building, not only in terms of its build and running costs but also in terms of how it can act as an 'exemplar' of how building construction choices can reduce $C0^2$ emissions and also demonstrate how to employ renewable technologies.

In terms of the Creetown site a strong case can be built in terms of the reduced $C0^2$ emissions and the benefits to the local economy in terms of the triple-bottom line – environmental, economic and social.

Importantly, it is more difficult to make the case for the Creetown site in terms of the capital cost when compared to a 'standard' building of the same type on the site and when compared to a Low-Zero $C0^2$ building of the same type elsewhere. This is simply a factor of the disadvantages of the site in terms of size, planning and location for capture of wind and solar gain. This is dealt with in more detail later. Broadly, the concept of the building as a vision in this design feasibility could be replicated elsewhere and given a better site, also be improved upon.

5.7 Outline Brief

As a result of the work, which was carried out between our consultancies, Mary Roslin, the architect, developed a number of strands, which together embody the principles of the building at the Creetown site, in her own words:

'Provide a modern, comfortable and flexible professional shared working environment and ancillary space for several organisations and individuals.

Demonstrate, in a rural area that a community and socially inclusive facility enhances individual and group work opportunities and organisation by enabling networking and partnership working.

Engage creatively with the local community during the design and construction phases and with subsequent management.

Express the values of SUP as a socially enabling and environmentally responsible organisation.

Generate sufficient income for the maintenance of the building and funds for SUP.

Embody a conceptual and visual distinctiveness that will draw in and intrigue potential visitors, encouraging them to investigate more about sustainable building and the use of small scale renewable energy.

Embody a sense of place by engaging with the landscape potential of the site.

Act as a vehicle for education and public interpretation of sustainable building, small scale renewable technologies and social enterprise.

Embody means and processes for building replication on other future sites.

Be an exemplar of low carbon emissions building that minimises its 'eco-footprint' through:

Appropriate construction techniques and processes

The use of renewable technologies

Attention to the site potential

Building design that supports the sustainable use of resources and recycling by the building occupants.'

5.8 Building design principles and exemplars

The design of this building embodies a principle of low carbon use, not only in terms of its energy use in operation, but also in terms of the carbon used in its construction and also in its repair and eventual de-construction or demolition. In these terms the building can be described as an exemplar building and one that can be used in terms of a pilot for low carbon building and as an educational and visitor resource for the future.

5.9 Comparison of a low carbon and conventional Building Standards

The low carbon building seeks to use materials that have been produced without the use of fossil fuels and that are not highly processed or integrated prior to use. This means that materials such as bonded building boards, where insulation is combined with chipboard or gypsum board are avoided. In addition, the travel distance of material to site is a major consideration and wherever possible local renewable resources are preferred.

Obviously a low carbon building must meet Building Regulations as a standard however in many cases the low carbon option will actually exceed the requirement of current Building Regulations due to its increased efficiency and carbon-efficiency.

In essence the low carbon option provides a building that minimises the carbon used in its construction and then, when in use, seeks to have a very light environmental footprint through:

- Encapsulating low carbon and low toxicity in construction through the use of recycled and natural materials, the use of local renewable materials, the avoidance of materials that are toxic and of long-lasting detriment to the environment such as PVC (cabling) and volatile organic compounds (VOC's) such as hydrocarbons, halocarbons and oxygenates.

- Utilising both the latest technology and very traditional techniques in combination including making the building very airtight and highly insulated with windows that are triple-glazed and filled with argon and at the same time incorporating traditional innovation with for example; walls that 'breathe' and are made from hemcrete (a mixture of hemp and lime), both very traditional building materials.
- Incorporating significant 'thermal-mass' within the building in combination with renewable technologies and active ventilation to control seasonal heating and cooling in such a way that the building will not require a traditional heating or air-conditioning system.

- Minimising the impact of waste through the use of grey water recycling, rain water harvesting, natural sewage techniques; minimisation of resource use by occupants and highly active recycling of waste materials.

- Enabling a change in the social and business behaviour of occupants through the ergonomic design of the building and the opportunity to use the space in ways that reduce the impact on the environment.

- Design for eventual de-construction in its ability for material to be re-cycled and used elsewhere or to be returned to the environment with no ill effect such as through composting.

5.10 Developing the building as an exemplar project

In effect the very high specification of this building in terms of design, materials and construction means that its use of energy for heating and ventilation is close to zero, with supplemental heat from bio-mass only being required for very cold periods. In effect this building has moved beyond the need for conventional heating, even if powered by a renewable source such as a heat pump and could provide a powerful case study for what can be achieved through low carbon construction.

In addition, the building does provide opportunities to demonstrate the different uses and relative merits of renewable technologies such as passive solar panels (hot water), photovoltaics and wind turbines (electricity generation) and energy storage (batteries).

The outline design specification of the building includes calculations and estimates for:

- Heat loss and energy demands of the building
- Annual energy consumption
- Lighting requirements
- Avoidance of summer over-heating
- Utilisation of renewable energy sources

5.11 Replication of the building on other sites

The usual advantage of replicating construction of a building is one of cost in that items can be pre-fabricated off-site and on-site construction time and therefore labour can be reduced. This is already a proven technique in the construction industry with techniques such as timber-framed buildings and pod-buildings.

The interest in replicating this building is more concerned with the fact that on different sites this outline design will either be very low carbon, zero-carbon or possibly even carbon-positive, in that it could sequester carbon from the environment.

5.12 Business opportunities and constraints

Currently the main issues that hinder replicating a building of this type include the lack of local labour with experience in the use and application of the techniques required; the lack of UK-based supply chains for building materials that are needed and the lack of local infra-structure to provide locally sourced, renewable materials. These challenges also represent business opportunities for local companies.

5.13 Workplace community

There were multiple objectives within the outline design brief but the over-arching principle was to provide a 'workplace community', which would reflect both a serious business intention as well as a contemporary image.

In addition, the facility would contribute towards the triple-bottom line of social, environmental and economic benefit by providing an exemplar of sustainable development, education resource, regeneration and the provision of a model to be replicated elsewhere.

5.14 Specification and capacity of accommodation

The accommodation consists of a mixture of closed office space, open office space, clean production space, meeting rooms, exhibition area, informal networking space and catering facilities. It is this mixture of accommodation, which is intended to 'pump prime' the workplace community in that it attracts a mixture of different tenant types and sizes of business and the layout is designed to help individuals mix together to provide this community aspect.

The outline design provides for a building of partly single and partly two stories with a mezzanine over part of the latter. This accounts for the individual nature of the site in question, although a building replicated on another site may be entirely different in terms of floors and layout.

The total indicative floor area provides a total of 448m², which includes all the dedicated accommodation and common, public and common areas. This size of building at accepted densities could provide permanent workspace for 40 people spread between open plan offices (circa 20 spaces), closed office space (circa 14 spaces) and production workspace (circa 6 spaces).

In addition, the meeting spaces are designed to accommodate small groups and with movable partitions up to a maximum of 20 people. The exhibition space and networking space provides further informal space for 10+ people.

At an absolute peak therefore the building could viably hold upwards of 70 people (including visitors) within its various facilities.

6 Business Case for a zero/low carbon building

The indicative construction budgets for this building have demonstrated quite clearly that in purely monetary costs alone it is very difficult to justify the construction of a low-zero $C0^2$ building. There are a number of compounding factors that contribute to this current financial situation:

6.1 Business opportunities and constraints

The sourcing and cost of low carbon materials is currently prohibitive and the supply chains are also, in many cases, long, at distance and in many cases incomplete, although these are developing. In addition, local sourcing, due to lack of demand, is difficult as the critical mass does not yet exist to allow entrepreneurs to respond to the potential.

Contractors capable of building within a low-zero $C0^2$ methodology, with experience of the new technologies employed and also the use of traditional materials are relatively few and the supporting professional sector such as renewable technology engineers are at a premium.

The result of these factors has tended to distort the market for the construction of such a building and this is amply demonstrated by the indicative construction budgets obtained during this study.

6.2 Capital and running costs

For the Creetown site, which was the subject of the study, the cost for a low-zero $C0^2$ building was £1.065M whereas the cost estimate for the same building to Building Standards was £765,000, a premium of £300,000 or nearly 40%.

In purely economic terms, the only savings to be made in terms of running costs would be estimated energy savings which amount to a net saving each year of £1,978. Although this calculation is crude, it would take over 150 years (beyond the probable expected building life) to recoup the cost premium at today's prices.

The Creetown site, due to its size and location, was not ideally situated to provide a zero $C0^2$ building due to issues such as the lack of solar gain, site for a wind turbine or availability of micro-generation from water power, lack of space for sewerage disposal etc.

Given that the building concept is transferable, a similar building footprint ideally located on a more convenient site, provides an indicative cost of £900,000 against a Building Standard building cost of £720,000.
The premium in this case is reduced to £180,000 or 25%, still significantly more. By its nature a zero $C0^2$ building uses zero carbon and therefore the cost of heating, hot water, small power and so forth is nil. Added to this, there is the potential to generate excess power through renewable sources and this can be sold back to the grid when not required.

6.3 Comparative return on investment

Based on the indicative running costs of a comparative Building Standards building and rate of sale of power to the grid from an equivalent zero $C0^2$ building the annual saving for the zero $C0^2$ building is in the order of £4,782. This brings the period required to recoup the premium at today's prices down to a very manageable 38 years, well within the expected service life of the building.

The above is purely a crude economic comparison between a Building Standards building and a Zero $C0^2$ building and takes no account of the social and environmental benefits that will accrue over the entire life of the building, which is dealt with later.
Importantly it does not take into account any rises in the price of fossil fuels, which over an extended period are likely to be significant (Crude Oil in Oct 06 was $58/barrel, peaking at $88/barrel in Nov 07) with continued volatility.

It should be noted that the construction costs above exclude any provision for Professional Fees or VAT.

7 Value for demonstration & educational purposes

There is a significant case to be made for this type of building as an educational resource and to demonstrate what can be done in terms of a zero $C0^2$ building. Design of this type presents a justification for construction which aims to reduce to zero the requirement for energy from non-renewable sources – in effect preparing for so-called 'energy-descent' where reliance on fossil fuel based systems becomes unsustainable.

7.1 Low / zero carbon footprint and innovative use of technology

One of the most valuable aspects of a building such as this is the opportunity to demonstrate how it becomes possible, through innovative design, use of new technology and use of traditional materials, to construct a building that has no impact in terms of carbon footprint on the environment.
Not only that, it has the ability at certain times to provide energy in the form of electricity, through renewable sources, as a contribution to be used by others – effectively becoming a carbon sequester.
This is a story that can be told through a variety of media such as film, audio, written word but crucially the building itself could become an important demonstration site and be a visitor attraction.

7.2 Value as a demonstration site

In the main the general public has a pretty poor understanding of the various renewable energy technologies that can be deployed, how they operate and the form in which they provide energy for daily use.
Providing a demonstration site, which showcases photovoltaics, solar panels, wind turbines, heat pumps and so forth would be interesting but there are examples elsewhere in the UK of demonstration sites of this type.

7.3 Innovation in construction and energy conservation

This building provides an opportunity to showcase not only these, and similar technologies, but also to show how, through construction innovation, that it is possible to construct a building in a northern-latitude that has no impact on the environment and uses no carbon.
The most obvious demonstration of this is that this building does not require a conventional heating system at all. It shows that it is possible to manage issues such as heat loss, winter heating/summer cooling, air quality and condensation, through innovation that is available right

It is these 'hidden' benefits of the building, which are built in through good design that becomes an extremely important story to tell. Combined with appropriate use of renewable technology and resource/waste minimisation measures on-site such as grey water re-use, rain water harvesting, natural effluent disposal, the building becomes a very valuable education and demonstration resource.

8 Selecting the right site, location and community partner

The site specific study completed in Creetown has informed SUP on the selection criteria that should be applied to the choice of site, the geographical location of the project and the type of arrangements required with a community or estate partner.

The study of Creetown has also provided a basis for researching the demand profile of the location and assessing whether there is sufficient interest from prospective tenants to make the project viable and achieve the occupancy level required.

These perameters are examined further below together with some ideas on locations and partners that could be worthy of further investigation:

8.1 Choice of site

The Design study confirms that the following key factors should be considered in the selection criteria:

Quality and type of site

- There is no such thing as a standard site. A new site appraisal will be required to re-evaluate the structural design in relation to local ground conditions.
- The viability of the site will depend on the availability of land at an affordable price. The value of the site if gifted could be used as a matched funding contribution for grant.
- Renovation of existing disused buildings is the most ecologically sound option
- Check for evidence of hazardous materials in the form of contaminated land or the need to remove asbestos from existing buildings.
- Site works should consider any demolition costs.

Size and availability of services

- Proximity of the site to local sewers and public utilities.
- Area of site would need to be circa 600m2 to accommodate landscaping a new build and enable sufficient gross internal floor space 450m2 to be provided

Planning issues

- Location should establish whether the site is within a Conservation area and existing construction has listed building status.
- Site lines for vehicular, public service and pedestrian access should be reviewed.
- Parking areas should be available to service a minimum of 2 spaces per 100m2 + 10% for visitor parking.
- Boundary issues including consideration of adjoining properties will influence layout.
- A new Planning Application and Building Warrant will be required with Statutory approval from Scottish Environmental Protection Authority

Eco credentials

- The site should consider the availability and proximity of local contractors and construction materials
- Investigate the potential to install small scale renewable energy generation equipment.

- Ability of site to collect rainwater and incorporate a micro-hydro scheme
- The sun angles and existence of high trees/buildings that could limit solar-access thereby reducing the efficient use of photo-voltaics.

8.2 Choice of geographical location

The Feasibility study suggests that evidence of demand and the arrangements made with the community or estate partner are critical factors in assessing the viability of the project and its capacity to generate income for SUP and economic benefits for the local community.

It is acknowledged that gaining firm commitments to occupation two years in advance of opening is an unrealistic goal. However, market research should evidence that there is sufficient interest in the project from its target audience.

The lessons learned from the study in Creetown were that the chosen location should exhibit the following characteristics:

- A rural population Centre of 2000 or above with latent demand for occupation from businesses within the immediate area. Alternatively a site within a major population centre such as Dumfries or Stranraer.
- Easy access to local business services and infrastructure
- Interest from other businesses within the travel to work area
- Possible interest from businesses interested in relocating to Dumfries and Galloway.
- The prospect of an anchor tenant probably sourced from public sector organisations
- Occupation of space by Community Partner or SUP to act as caretaker/manager of the facility.

8.3 Usage of workspace

The building will provide affordable flexible workspace that is responsive to demand from businesses for closed and open offices and workshop space. It could also act as a potential business incubation facility. It will provide shared space for social and business networking with rooms for hire for meetings, outreach surgeries, training and presentations.
The Eco components will ensure that there are low running costs and a healthy working environment with ancillary accommodation for social and business networking.
A mix of businesses will be attracted that reflect demand for workspace in the selected location. In the spirit of SUP's objectives, social enterprises, voluntary sector and business start-ups may be offered advantageous terms accounting for their charitable objectives and/or needs to minimise overheads until they become established.

8.4 Research and educational establishments

The building will be unique in Dumfries and Galloway, an exemplar project providing a demonstration site for the use of low carbon construction and energy saving technologies.
Organisation's such as the newly established Crichton Carbon Centre in Dumfries has committed support to the project and recognises its value in terms of an action research project at the leading edge of green technology.

The Energy Agency has also pledged its support and the site has the potential to attract educational visits from schools and interest from a wide range of environmental agencies and practitioners.

8.5 Tenants and demand issues

The profile of the types of businesses that should be targeted for occupancy will depend upon the location and any special business demographics that it may exhibit.

The mix and proportions of public, private and voluntary sector organisations will influence the return on investment assuming that a differential pricing policy is offered to the types of businesses who are attracted to take-up tenancies.

- Category A Public Sector Organisations and support agencies
- Category B Private sector businesses subdivided into start-ups and established businesses
- Category C Voluntary Sector, Social Enterprises and organisations with charitable objectives.

Research undertaken in the local area on the supply and market rental values obtained for office accommodation will confirm rental values.
In the Creetown Travel to Work Area these ranged from £50-100m2 and it is likely that this range would apply to most rural locations outside Dumfries centre which could command higher rents closer to £200m2.

8.6 Choice of Community Partner

Funding applications to support the Eco Office project will need to be underpinned by evidence of local community consultation and support. This was clearly in evidence in Creetown but further studies may be required to establish community support in alternative locations.

Partners may be local Community or business organisations, the local authority or local estate and or property owners.

Arrangements with Community Partners should consider the following:

- Evidence of community support for the project or willingness to engage in community consultation for this purpose.
- Availability of a suitable site for purchase and development
- Compliance with any local planning constraints
- Ability to install and benefit from energy generation technology
- Willingness by owner to grant the site at zero cost or sell at a discounted rate
- Offer of a long lease at zero or low cost, incorporating appropriate safeguards.
- Ownership or transfer of the building / site to Community Partner at some later date or on dissolution of SUP

8.7 Potential locations for further research

Ideas on alternative locations in Dumfries and Galloway that may fit the profile and be worthy of investigation include:

- Newton Stewart which was stated by consultees in the Creetown study as a preferred location. The Newton Stewart Business Association and/or the Social Enterprise Network could be potential partners.
- Gatehouse of Fleet where negotiations could take place with the Murray Usher Foundation to combine forces on the redevelopment of Fleetside Workshops which has established demand from existing tenants.
- Crichton Campus, where the Local authority and Crichton Foundation could be potential partners in the creation of a Business Incubation Centre allied to Crichton Carbon Centre, Universities and sponsored by local authority and economic development agencies
- Gretna Green area, where significant public and private sector investment is planned as a follow-up to Gretna Regeneration Masterplan.
- Lockerbie close to M74 corridor serving the broader communities of Annandale and Eskdale, with a declared aspiration to become a conference town. There are proposals under consideration from Internet Vilages International Ltd to establish an Eco Village, data storage facility and large private sector investment in this area.
  Both Lockerbie and Moffat have Community Initiatives that could be potential partners in this district.
- Alternative sites that may present themselves in the Scottish Borders or South Lanarkshire

This list is not exhaustive and SUP may have other locations, sites and community partners that may fit the site location and partner perameters and exhibit a demand profile that would supply the necessary evidence that occupancy levels could be achieved.

9 Attracting tenants and promoting usage of the building

The Creetown study demonstrated how difficult it is to anticipate demand for tenancies two years in advance of occupation. However, it is acknowledged that funders will require evidence of potential usage of the building and sustainability of its operation.
A Marketing strategy should be deployed in advance of opening of the building to promote the benefits of occupation and stimulate demand. The key elements of this marketing strategy are summarised below:

9.1 Market research and target groups

Local research will be required to validate that potential demand in a new location fits the selection criteria. This research will aim to identify the best prospects within the agreed target groups:

- Public Sector organisations who may be anchor tenants
- Environmental specialists who may be attracted to working in a building with state of the art green credentials.
- Start ups and new businesses looking for their first premises
- Existing SME's who have outgrown working from a home base or are looking for new premises.
- Social enterprises and voluntary sector organisations who are looking for shared office space, discreet interview rooms or use of facilities for outreach services.
- Local Community Initiative or Estate Partner, who could use the building as a base for its activities and provide the caretaker role for tenants and visitors.

Knowing the likely mix of tenants will also influence the provision of open or closed workspace and shared facilities. The mix may also provide opportunities to examine additional funding routes such as support for business incubation.

Research would also cover investigation of local supply of office accommodation, identification of any competitive developments and the rental levels achieved. This work would encompass contact with local solicitors, commercial property land and estate agents and interrogation of Scottish Property database.

Identification of potential tenants, backed if possible by formal registration of interest will provide funders with comfort that achieving an occupancy level of 70% is a realistic aspiration within the first few months of opening. Once the demand profile for the location is confirmed, a proactive marketing strategy will be implemented to build upon this research creating additional demand in advance of occupation.

9.2 Promotion of unique selling points

The Feasibilty study in Creetown confirmed that there are no real exemplars of state of the art Eco Office developments in Dumfries and Galloway with the possible exceptions of the Green House in St Johns Town of Dalry occupied by Natural Power consultants, and Scottish Natural Heritage's premises in Minnigaff, Newton Stewart.

The green credentials of the proposed new building, its low carbon footprint, low running costs and healthy working environment should be stressed as key benefits in any prospectus or promotional material.

These elements can also be emphasised to visitors who are offered tours of the facility. This group will the more interested in the demonstration and educational value of the site as a practical working model of energy conservation and use of sustainable material and technologies.

The flexibility of the workspace to provide both open and closed office or workshop space and the availability of additional facilities and space for networking and hire are key selling points.

9.3 Tenancy costs and terms of occupancy

The affordability of tenancies is a key element when combined with the economic benefits of the building's green credentials. Tenants will benefit from competitive rental values when low running costs are taken into account.

Flexible workspace, the ability to network in shared areas and the facility of hiring the larger training or meeting rooms as required gives added value.

Tenancy agreements need to be flexible and reflect the status of the applicant. For example; easy in and out terms cold be offered to new starts and social enterprises and voluntary sector who rely upon grant funding for core costs.

9.4 Pricing strategy

The Creetown study deployed a differential pricing strategy in the assessment of income that could be generated from occupancy of the building.
The rationale for applying a differential strategy is to reflect the ability to pay of different tenancy groups. The length of tenancies, and SUP's desire to attract start ups and/or social enterprises to take up a proportion of the workspace will also influence pricing policy.

Tenancies in Creetown were based on a range of £50m2 - £100m2 with public sector organisations and established businesses priced at the higher end of the scale and Social Enterprises, voluntary sector and start –ups at the lower price point.
These price points will need adaption to the new location and it may be possible for example in Dumfries, to achieve higher rental values dependant upon the target group.

In all cases running costs are considered additional to these rates and would be divided amongst tenants in the form of a management and maintenance charge. The attraction of the green building is that these charges would be minimal and SUP could derive a premium from this element.

Pricing of the meeting/training room has been based on competitive rates available elsewhere and in Creetown's case was set at £50 per half day or evening session. Additional income streams could be generated if on site catering and refreshments are provided or the kitchen facilities are franchised out to a local business or tenant.

10 Implementing a marketing strategy

The purpose of implementing a marketing strategy is to raise awareness, attract demand and gain commitments to tenancies and usage of the building in advance of occupation.
The strategy would run alongside the development and construction phases of the building through to opening and launch of the facilities. Promotion would continue at an appropriate level until full occupation of workspace has been secured.
Further promotional activity will aim to ensure that high occupancy levels are maintained and that the meeting/training rooms are fully utilised and visiting groups are attracted to the site.

10.1 Target groups

Promotional activity would be directed at three distinct audiences:

- Prospective tenants of open and closed office space. These will be determined largely by the geographical location of the building
- Organisations who may wish to hire the training or meeting rooms
- Visiting parties attracted to the educational value of the building as a demonstration site for low carbon energy saving equipment and construction technologies.

10.2 Promotional methods

The availability of workspace within the new building can be promoted by the following methods:

An illustrated prospectus outlining the location, key features of the workspace and unique selling points. Enquiries would be directed to SUP, who would discuss terms of occupation and rentals with parties that registered interest. This printed prospectus could be distributed locally by business support agencies and via targeted mail shot.

SUP could also place similar details on their website www.sup.org.uk
and utilise reciprocal links to Rural Gateway, Environmental support organisations, Scottish Chambers of Commerce and National business support organisations to promote the accommodation to a wider audience of potential businesses who could consider the attractions of relocating their business. The building could also be registered on the Scottish Property database managed by Scottish Enterprise.

At local level the Community Partner, sponsors of the building and local business support agencies can play an active part in promoting the facility as they will have a vested interest in developing and sustaining the facility.

Word of mouth will be a key driver of interest in the new building and full advantage should be taken of any free media publicity leading up to a launch event and official opening of the building by a high profile guest.

Visitors to the facility could be attracted by press coverage and by targeted mail-shots to DGC Education and Community Services, Environmental support agencies and to deliverers of Eco Projects in other regions.

10.3 Outcomes

The desired outcomes of promotional activity are:

- Develop awareness of the building both as an office facility with rooms for hire and a demonstration site.
- Secure an anchor tenant in advance of occupation of the building
- Achieve minimum 7O% occupancy of workspace within first 3 - 6 months of opening
- Optimise occupancy levels and retention of tenants.
- Achieve high utilisation of meeting and training room
- Attract a planned series of educational and group visits
- Generate minimum net income for SUP of £20k per annum

11 Project legal structure

The choice of legal structure is driven, in the main, by the achievement of the objectives of the project and overcoming the hurdles that may be placed in the way before, during and after project completion and the practicalities of operation thereafter. These can be summarized as:

11.1 Ownership, Management & Control of the Asset

The project revolves around the construction of a building, which will become a workplace community. Naturally the building will require a site, which will have a value in economic, environmental and social terms. The site will also have an owner, who may simply be the vendor or may become a partner in the project itself. The building, once constructed, will have acquired a value in its own right and this may be recognized as an increase in the value of the site or may be valued separately to the site.

As the building commences in use, there is a requirement to trade in terms of monetary arrangements for rent, services and fees and there is also a requirement to provide a management and maintenance role.

11.2 Funding

Although it is advisable for projects not to be 'driven' by the terms and conditions of funding availability, this is difficult to avoid if obtaining funding is essential to the success of a project. This is particularly the case when larger funding streams are considered which have very explicit requirements that must be met for success. Obtaining this key funding, which may provide a significant proportion of a project's requirement can be not only essential in itself, it may also be crucial in obtaining other smaller funding streams that can be encouraged to participate in light of these key decisions.

11.3 Direct Tax, Indirect Tax, Legal & Statutory Issues

These are not insignificant, may be unavoidable and can be costly to a project. Taking the right steps, particularly prior to project inception, can be crucial and the right tax and legal advice early is always called for. The organization and timing concerning the movement of assets, their ownership, the relationship between partners and the period between the development and operational phases is very important.

In addition, tax consequences may be imposed on a project simply as a result of decisions made by others, which is outside the control of a project. Consideration must be given to issues such as Stamp Duty, VAT and Trading Profits among others.

12 Choice of social enterprise model

There is no doubt that a social enterprise or more rightly in this case, a 'social venture' is an appropriate vehicle for a development of this type.

The objectives of the venture will be defined by primarily social drivers although there will also be significant environmental and economic benefits essential to long term sustainability of the project.

12.1 Legal Structure - options

There are a number of legal structures, which can be considered suitable for social ventures and there is a large amount of generic advice and research available to help guide any decision. As with all such advice, the ultimate decision is a matter of judgment, given the particular circumstances of the venture, the investment and funding sought and the objectives of the venture. Importantly, the timing and terms of issues such as change of ownership of assets, application/qualification for funding and taxation implications needs careful management.

From research, the two legal forms, which seem most appropriate for a project of this type are; Limited Company or Community Interest Company.

Limited Company

This is the most frequently adopted form, which allows the Directors to manage the business in a very flexible way, limit their personal liability and which can also be, or become, a charity if necessary.

Limited Companies operate under the Companies Act and there a no substantial differences between the law between companies in England and Scotland; research therefore applies equally to both.

Although using a Limited Company as a vehicle may be appropriate, the key to this choice may well be a matter of where ultimate control rests in terms of the control of the asset, trading interest in the development and any surplus created.

Community Interest Company (CIC)

This is a relatively new form of corporate structure designed specifically for use by social ventures. For companies without charitable status it has been difficult to ensure that assets are dedicated permanently for community benefit.

The CIC structure provides a purpose-built legal framework for social ventures that want to adopt a limited company form. A CIC is not a charity but can convert to one, should the need arise.
The significant difference between a limited company and a CIC is that in the latter case the constitution contains provisions that lock up the company's assets and any surpluses for the benefit of the community.

Given the requirement for major funding streams such as the Big Lottery for assets to be in control of the community concerned then a CIC may be appropriate, given that the asset is permanently 'locked' in the hands of the community. This of course may not meet the requirements of a land-owner who will have to effectively pass ownership of the land to the CIC.

12.2 Permanent Trading

Given the likelihood that the legal entity chosen for this development will be a charity, a significant issue to consider is the fact that charities should not undertake permanent trading activity and the Charities Commission has very specific guidance in this area. The ownership of a building and letting accommodation is also not in line with the objects of the SUP.

Given this, the most appropriate route to take, and one which is adopted by numerous charities may be to operate a wholly-owned trading subsidiary, which manages the trading aspects of the development post-completion

There are a number of significant implications to the above arrangements and once again these are most commonly made to maximise the funding, trading and taxation benefits, which are available to the charity.

12.3 VAT

The option to become VAT registered is one, which also needs to be considered when embarking on a development of this kind. The construction of the building will be liable to VAT and recovering the VAT obviously makes the process more cost effective – VAT of £175,000 will be recoverable on a build cost of £1m.
This also has implications for funding applications – a common trap is one where irrecoverable VAT costs due to non-registration are not factored into a funding bid.

There will be a stark choice with regard to VAT – either 'opt to tax' and VAT can be recovered and will be chargeable thereafter or absorb the VAT cost on construction and do not register for VAT. If the former route is chosen then there are also VAT implications and this reinforces the necessity of forming a trading subsidiary.

If a decision is made to recover the VAT on construction costs; 'opting to tax' the building, VAT will be chargeable on rents and services. If a charity rents the building to its trading subsidiary, it too will have to register and charge VAT to tenants.

If the tenants are all VAT registered then this will be neutral and of no concern. If the building tenants are likely to not be registered for VAT then this may dissuade some tenants although given the innovative nature of the building with all its associated advantages, VAT is unlikely to be a major cause for concern.

12.4 Project Planning

There is the requirement to ensure that every aspect of the issues dealt with above is factored into an early project plan, which satisfies each, insofar as it is possible to do. The benefit to this early work is that each issue can be clarified to ensure that any advantages are maximized, any disadvantages minimized and that there is clarity of requirements and timing, which are crucial.

13 Staffing and management resources

The successful development and implementation of this project will be contingent upon the skills and abilities of operational staff and local examples of capital developments confirm that the time required should not be underestimated.

It is clear from discussions with SUP that current management resources are at full stretch and time limited. Once the project receives Board approval and a suitable site and community Partner is identified, dedicated staff will be required thereafter, to manage the project.

13.1 Key stages of development

Staff resources will be required to enable the project to proceed through each stage of implementation:

Pre-planning - including finalising arrangements with Community Partners, surveys, planning consents, architects plans and tendering for construction work
Funding - including completion of applications to support the above and to raise the necessary finance for capital costs of construction and equipment and revenue
Management of construction work - including draw down of funding and supervision of contractors
Marketing - of the Eco office units and facilities and securing of tenancies
Operation - including supervision of the building, finance and tenants, caretaking of facilities and management of visiting groups

13.2 Recruitment of key staff

It is considered necessary that the project will need to recruit specialist skills either on an employed or self-employed basis. Employment is more suitable for full time fixed term appointments whilst self employment provides greater flexibility for short term, part time assignments.

Reference could be made to the different experiences of two local organisations:

- Upper Nithsdale Arts & Crafts Initiative has recently appointed marketing and finance specialists on a self employed basis to prepare for the opening of its new building project
- Glenkens Community & Arts Trust used employed staff for marketing fund raising and project management until the opening of their new building and has recently recruited a Business Development Manager, funded by grant to manage the operation.

Key appointments would include a Project Manager, and a Fund Raiser.

- The Project Manager would justify a full-time fixed term appointment ending when the building is open for business.
- The Fund raiser could be a part-time appointment for the first year of the project until the necessary capital and revenue funds have been raised.
- Additional expertise will be required to cover marketing activities and appropriate provision should be made for legal and accountancy advice throughout the term of the project
- The Caretaking role and operational management of the facility could be subcontracted to a community Partner in exchange for office space assuming this benefit would act as an incentive and the right skills are available.

SUP has already drafted an outline job description for the Project Manager and the Fundraiser, which can be developed into a person specification to guide the recruitment and selection process.

13.3 Funding of staff

The Crichton Carbon Centre has already pledged £30k per year funding support for the Project which would allow the Project Manager and Fundraising post to be resourced for a period of two years.

Additional funding for the caretaking role or for specialist expertise could be sought from organisations referenced in the funding section of this report such as Lloyds TSB Foundation.
Applications could be made for up to 3 years support leading to sustainability of the operation from income received or alternatively through suitable arrangements with community partners.

14 Capital & revenue costs

It is unlikely that the 'perfect' site can be found for the construction of this building. There will however be a number of locations within Dumfries & Galloway, which exhibit a range of features, which will allow a building such as this to be either Zero $C0^2$ or close to it and have the facility to deal effectively with a range of other environmental concerns such as effluent and waste minimisation.

14.1 Impact of choice of site

Although not exhaustive, the likely site features that will be favourable for this building may include:

- Appropriate site profile and alignment for optimum solar gain
- Suitable topography/exposure for wind turbine
- Access to watercourse with suitable catchment, fall & flow for small-scale hydro-generation
- Site suitable scale/condition for reed-bed waste treatment plant

As already demonstrated through the design feasibility work carried out on the Creetown site it is possible to create a building, which needs no conventional heating system and with the additional benefits of micro-generation and waste management on-site, can meet a Zero $C0^2$ target, may well additionally sequester carbon from the environment and have a very light environmental footprint in terms of reducing, re-using and re-cycling the waste it generates.

The additional benefits of a favourable site in terms of some, or all, of the features mentioned above, will help to improve the viability of the development over the long term.

14.2 Capital Costs

As already mentioned, a Zero $C0^2$ building given favourable site conditions, will cost in the region £900,000 as opposed to £720,000 for a Building Standards building of similar dimensions.

These costs are based on the design work for the Creetown site, providing approximately 40 work places in various accommodation plus meeting rooms, networking areas and common parts in space extending to 484m^2.

The cost of £900,000 excludes land cost, professional fees and VAT; the latter will be recoverable if it is decided to 'opt to tax'. The final cost for such a building is therefore likely to be in the region of £1.2m given a reasonable estimate for professional fees at 11% and a cost of land at circa £200,000.

14.3 Revenue Costs

In general, these costs are made up of charges such as insurance, cleaning, decorating and a normal schedule of planned maintenance. There is nothing to suggest that a building of this type will cost any more to maintain and insure than an equivalent Building Standards building.
The significant advantage that a Zero $C0^2$ building exhibits over a comparable Building Standard building is the reduction in running costs in terms of energy use for heating, hot water and small power such as computers, printers etc.

As demonstrated by the design feasibility work, the building is able to generate all its requirements for energy from its own renewable resources and, at certain times, contribute energy back to the National Grid in terms of electricity.

This combination of energy saving and potential energy supply was estimated to be in the region of £4,782 per annum, which of course can offset the costs of maintenance. Based on the design size of the building this provides an annual budget of nearly £10m², which in effect could make the building cost neutral in terms of energy, maintenance and management.

15 Sources and application of funding

At a cost of approximately £1m this is obviously a significant project, however there are numerous examples in Scotland and elsewhere, of community based projects developing schemes of similar size successfully.

15.1 Local case studies

Local examples of successful developments include the newly launched Catstrand building in New Galloway, providing a £1.2m, multi-usage arts and community development and the Enterprise Centre in Auchencairn housing the local post office and additional business and community facilities.

In the case of case of Catstrand, the development has required multiple applications to a full range of Trusts, local fund raising together with Arts Council, European and Lottery Funding.

For Auchencairn, support has been received from the Scottish Land Fund, DGC Community Capital Fund and the Big Lottery.

Further examples are the Millenium Centre in Stranraer that has recently secured Lottery funding for expansion of its office facilities and the Buccleuch Centre in Langholm which has become a centre for music and the arts.

15.2 Critical factors

The argument for this building project to go forward is encapsulated within the next section where the 'triple-bottom line' of economic, environmental and social benefits is explored.

A significant factor, which must be addressed however, is the right project partnership to be assembled, which is able to draw together the capital required made up of assets, funding and private sector contribution.

A critical part of this is the foundation of finding the right site and organising the tenure of that site so that its value can be applied in full to the project.
This will provide two very significant advantages;
the first the site itself, which hopefully exhibits a number of distinct advantages – location, topography, layout etc.
The second; the value of the site itself, ideally this can be applied in full as a freehold tenure in the hands of the project partnership.
This will provide a financial foundation upon which to build the project and the multiple funding and grant applications that will be required to bring about a successful outcome.

15.3 Funding mix

The potential sources of funding include a mix of grant-making organizations, Charitable Foundations and Trusts and Corporate sponsors.

Regrettably, since completing the feasibility study, it has been confirmed that the project is not eligible for the Big Lottery Growing Community Assets Fund. There are multiple reasons for this decision associated with the key criteria that the building should be owned, managed and controlled by the local community. This casts-out a major source of funding that could have granted up to half the costs

of the project. This means that the fund-raising task is likely to be much harder and the project will be reliant upon multiple grant applications.

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15.4 Criteria for applications

The full criteria for eligibility and process of application can be accessed through their websites. These criteria were summarized in the feasibility study.
Experience of multiple applications also confirms that organizations tend to have different scoring and assessment criteria and business plans and supporting evidence have to be customized accordingly, adding to the time involved in preparation and project management.
Some funders are driven by the usages of the building whilst others may be attracted to the innovative aspects of the project and benefits to the environment and community.

15.5 Application of funding

The application of funding can be categorised as either capital funding or as revenue funding which would include the resources of a Project Manager and fundraiser (See section 13 for details).
Within the category of capital funding there are organizations that are specifically interested in funding the additional costs associated with a low-zero carbon building including any renewable energy components. Mary Roslin's design study suggested that the premium over a conventional build was likely to be circa 27% of the total capital costs excluding any purchase costs for the site.

15.6 Project Management

The goal should be to restrict the number of applications submitted as the more applications that are completed, the more difficult it will be to project manage the later process of draw-down and monitoring.
However, it will be necessary in practice to submit a series of applications in order to cover the full capital and revenue costs as financial limits are placed on many of the grants. Moreover, there are and no guarantees of successful applications.

15.7 Time constraints

Each grant application will be subject to a different lead time for consideration and approval with some schemes operating a two stage application process.
For this reason we suggest that it is likely to take between six and twelve months to get the full funding in place. Thereafter care will need to be excercised to ensure that spend takes place within the time limit allowed by the grant organization to prevent any withdrawal of support.

15.8 Contingency loan finance

We have proposed a number of sources of loan finance as opposed to grant. These could be accessed as a contingency to bridge any short term gaps in funding and ensure that a positive cashflow is maintained throughout the construction period and the first year of operation of the Centre.
Examples of when this type of finance might be required include delays in payment of grant, lead time to recover reimbursement of VAT on construction costs and any slippage of time before budgeted occupancy levels and income can be achieved.
The project will require close financial control and management and the preparation of a robust financial framework for operation.

15.9 Funding organizations

We have categorized below a list of the potential sources of funding for this project. This list is not exhaustive and data may change for the new financial year.

Category	Organization	Website	Grant limits
Capital	Scottish Rural Development Fund	www.esep.co.uk	Min £50k Max £none
Capital or revenue	Leader+ 2008-2013	www.leaderplus@dumgal.gov.uk	TBA
Capital and revenue	The Rayne Foundation	www.raynefoundation.org.uk	No limits
Capital or revenue	The Robertson Trust	www.therobertsontrust.org.uk	Up to £100k
Capital or revenue	Esmee Fairburn Trust	www.esmeefairburn.org.uk	Up to £150k
Capital & equipment	The Tudor Trust	www.tudortrust.org.uk	No limits
Capital & equipment	Lankelly Chase Foundation	www.lankellychase.org.uk	Up to £50k
Capital & Revenue	Garfield Weston Foundation	www.garfieldweston.org	No limits
Revenue	Lloyds TSB Foundation Scotland	www.ltsbfoundationscotland.org	No limits
Capital or revenue	Scottish Community Foundation	www.scottishcommunityfoundation.com	£5k and above
Capital	Dumfries & Galloway Council	www.dumgal.gov.uk Community Capital Fund	Circa £75 - £100k
Low carbon buildings program	Environmental Transformation Fund	www.dti.gov.uk	Up to £100k
Energy	Scottish Energy Saving Trust	www.energysavingtrust.org.uk/schri	Up to £100k
Energy	E.on uk Source Fund	www.eon-uk.com	Up to £300k
Research energy efficiency projects	Pilkington Energy Efficiency Trust (UK)	www.pilkington.com	No limits specified
Loans	South of Scotland Business Loan scheme	enquiries@wrdc.co.uk	£5k - £50k
Loans	Charity Bank	www.charitybank.org	Negotiable
Loans	Cooperative Bank	www.co-operativebank.co.uk	Negotiable
Loans	Triodos Bank	www.triodos.co.uk	Negotiable

15.10 Income

The Eco office units will generate income from tenancies and usage of the meeting and training room. This will offset any running costs that are not fully covered in shared maintenance contributions from tenants and the balance will provide SUP with an income.
It may be possible to generate additional income streams; for example from franchising out catering arrangements and from utilizing the building for educational purposes and demonstration visits.

16 Return on investment and the triple bottom-line

16.1 The concept of the triple bottom line

This concept, originally coined by John Elkington in 1994, suggests that a business or venture should not only be judged by its financial performance (return on investment) but also by its environmental and social performance. This concept demands that a venture is responsible to 'stakeholders' rather than just shareholders, the former being anyone who is directly or indirectly affected by the actions of the venture.

Another interpretation of the triple bottom line is the goal of sustainability, as measured by the positive or negative effects on People, Planet & Profit. The plan for the development of this Eco-Office fits very well within the triple bottom line framework given that its promoter, SUP, is a charity with the express goal of sustainability for the society within which it operates.

16.2 Profit

In its narrowest definition, this defines the monetary return or internal profit that can be made by a venture capitalising on its assets in some form of trade. In this case it represents the net return that can be made by renting out work space to tenants.

A wider definition of profit is the effect that the venture can potentially have on its economic environment. This is the economic benefit that can be accrued by wider society in terms of its interaction with the Eco-Office – a measurement of the increase in economic goods that can be created as a result of the existence of the building. These will radiate out from the office location and are likely to be most pronounced within the immediate vicinity or travel to work area of the office.

In terms of narrow economic return; how much rent can be achieved from an office development, a developer is likely to choose to erect a building, which meets but does not exceed, Building Standards. There is no narrow economic benefit in choosing renewable and/or traditional materials for such a building given the higher cost and current intermittent supply and therefore longer period (at best in our basic calculation being 38 years) to recoup the investment.

Wider economic benefits, although more difficult to measure exactly, are mainly concerned with the additional activity generated by the existence of the office. Not only are these benefits economic but also potentially social and environmental, particularly if the Eco-Office concept attracts tenants whose views chime with that of SUP in terms of social and environmental objectives.

As currently planned, the Eco-Office is intending to attract a mix of tenants to an innovative and environmentally friendly work-space and as such this is likely to have a significant impact on the economic activity within its sphere of influence for an extended period of time.
Not only that, the ethos of the building, being at least carbon neutral, perhaps even sequestering carbon, means that it will stand as an exemplar of this form of development.

16.3 People

Typically, a venture that wishes to be responsible in terms of the triple bottom line, seeks to ensure that it operates a structure where it's corporate activities, the way in interacts with people, directly and indirectly, and other wider stakeholders is reciprocal and interdependent.

For example, it does not exploit workers connected to the business, either directly or in-directly through measures such as a safe working environment, fair pay, avoiding exploitation etc.

In the case of the Eco-Office, the objectives of SUP are concerned with maintaining the social infrastructure of the Southern Uplands and to a great extent this is dependent on encouraging people to thrive in the region through economic, social and cultural development.

The Eco–Office itself is designed as a driver for economic and social cohesion through the provision of an innovative space where people can work and mix together. The benefits of the building's low environmental footprint is one that will be shared by all that use it and it will encourage similar practice through its association with people that visit and are educated and enthused by their experience.

16.4 Planet

A triple bottom line venture seeks to not only reduce its impact on the natural world, but importantly, seeks means by which it can make a positive contribution to the natural order through its actions.

This means that it reduces its ecological footprint as fare as possible through planning its activities to consume the minimum raw materials, to reduce as far as possible its consumption of energy (from whatever source) and ensuring that it produces the absolute minimum of waste (recyclable or not) both in the short and long term.

The Eco-Office has the capability, with effective management, of delivering a range of significant environmental benefits over it lifetime. Firstly, in terms of construction, it plans to utilise natural organic material as much as possible, sourced from as close to its site as possible, thereby reducing to the absolute minimum the environmental cost of construction. It will also be able to use recycled local materials to provide new life to already used materials such as floorboards and stone.

The design provides for a building, that in terms of energy use, has the potential to cost no carbon and hopefully produce energy from renewable sources available to it, therefore reducing carbon emissions overall. This means that the tenants will be able to carry on their economic activity within a building that has very little or nil energy impact on the environment to provide heat, light and power for computers, printers etc.

Over the lifetime of the building, in terms of repairs and renewals, the building is designed in such a way that repairs can be made in a modular way, again in most cases using local organic materials and any waste product can be returned safely to the environment through methods such as composting.

In the extreme long term, the building at the end of its life is designed for de-construction at the minimum cost to the environment. The vast majority of material used in the building will either be available as recycled material to be used again or can be returned to the environment through methods such as composting, wood chipping for biomass, without the need to use landfill.

Delivery of each complementary element of this triple bottom line for the Eco-Office and therefore the goal of ultimate sustainability requires a structure of management, which encompasses the required ethos throughout the planning, construction, occupation and eventual de-construction of the building. SUP is in an ideal position to deliver this objective as their structure and objects reflect these ambitions already.

16.5 Return on Investment

As already discussed, given a purely narrow economic measure as a driver, the building would be constructed only to the level required by Building Standards. Using our crude calculations as a comparison it would take perhaps three to four decades longer in solely financial terms to recover the additional costs of building the Eco-Office as planned taking into account the triple bottom line.

If the additional benefits to the environment, to the economic life of the region and to its people, are taken into account, calculated over the lifetime of the building, there is no doubt that the Eco-Office could meet the test of delivering a significant return on the additional investment required.

17 Action plans & development milestones

The action plan summarized below assumes that The Board of the Southern Upland Partnership gives the go ahead for this project. This decision will follow an options appraisal that has been submitted as a separate document for consideration at the Board meeting on 21 January 2008.

The key tasks involved in the process of planning, recruitment, fundraising, construction and marketing have been listed in sequence and assigned an approximate timetable. It is assessed that the project will take up to two years to complete given the requirement to find a suitable site and community partner and the lead time required to raise the necessary funding.

Main tasks / activities	Key responsibility	Timing
Project options appraisal and approval	SUP Board	January 2008
Identify Community Partner and site	SUP Officers	Month 2-4
Complete site feasibility and demand study	SUP / Community Partner with grant support	Month 4-6
Review legal structure. Constitute new trading Company	SUP / Community Partner with legal advice	Month 7
Recruit Project Manager & Fundraiser	SUP with Crichton Carbon Centre	Month 7-8
Fund raising Capital & revenue applications	Fund Raiser	Month 8 onwards
Appoint architect and QS	SUP Project Manager	Month 9 - 10
Design & Construction specification, costs & planning consents	Architect and Quantity Surveyor	Month 10-12
Prepare financial control framework	Project Manager with Accountants advice	Month 10 -12
Issue Tender brief for contractors - select	Project Manager & Architect & QS	Year 2 month 1 - 2
Begin construction work	Contractor overseen by Project Manager	Month 3 - 12
Implement Marketing strategy – secure tenancies	Project Manager / specialist	Month 6 -12
Recruit Caretaker	SUP & Community Partner	Month 12
Open Centre	SUP & stakeholders	January 2010

This listing of tasks is not exhaustive and is given purely as a guideline to illustrate the process and approximate timescales based on experience of similar projects.