Community Power Limited
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Developing Wetland Biomass Options Project

Somerset Levels and Moors Action Plan Implementation Programme

Project Brief 2

June 2016

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1. Introduction

This proposal looks to builds on the Community Model idea developed by the RSPB and on the draft business plan produced in conjunction with Community Power Limited for the delivery of Project Brief 1; subsequently referred to as the Business Plan. This report aims to further develop ideas referred to in the Business Plan and explores three separate components which are significant in its future delivery.

This report facilitates the progression of ideas to the point that they can be reviewed and tested with stakeholders. Refinement is expected and stakeholder engagement may lead to substantial variations, but it is essential to start with a working set of proposals. The working premise remains that RSPB own and control this process, but other stakeholders will be involved in decision making.

This report has three parts; each introduced by re-iteration of the relevant aspect of the Project Brief. The first part is the most complex and so includes some preliminary work to define and identify stakeholders and their roles. The report should be read as a whole and it is assumed that the reader is familiar with the Business Plan.

2. Stakeholder Model

To identify the necessary ***administrative structures, contracts and legal responsibilities*** *in relation for each party to enable such a model to be delivered. The proposal should outline the key steps that will need to be considered and undertaken in the setting up of the model developed in the draft business plan, January 2016. Specific consideration should be given in relation to the following players and to outline the legal implications for each.*

a) Biomass supplier
b) Biomass harvesting contractor
c) Biomass conversion contractor
d) Bioenergy outlet (eg retail or large scale anaerobic digestion (AD) plant)
e) Community site owner
f) Energy hub coordinator
g) Community member

2.1 Definition of stakeholders and their roles

In the business plan the main stakeholders were defined in the following model:

In this report the title 'harvesting contractor' will be used instead of the title 'foraging contractor'.

The 'players' listed in the brief as 'a' to 'g' represent the roles to be performed within the Business Model so it is pertinent first to allocate roles to each of the main stakeholders. Each main stakeholder will have at least one primary role (which qualifies them as a main

stakeholder), but they may also have one or more potential roles, and they may have roles shared with other stakeholders. Collectively non-primary roles will be classified as secondary roles. The following table links the roles to the stakeholders.

Stakeholder	Primary Role	Secondary Role (potential)
Land Manager	a	d, e & g
Harvesting Contractor	b	c
AD Operator	c, d & f	e & g
Manufacturer	c, d & e	f & g
Consumer	g	

In the context of the Somerset Levels the stakeholders can be more fully defined and in some instances named:

Land Manager

The land managers would like the by-product of management put to better use and land use optimised. Land use optimisation and what is meant by 'better use' will depend on the objectives of the land manager; but in the Somerset Levels stakeholders will predominately be either conservation organisations or livestock farmers.

The local conservation organisations include the RSPB, Natural England and the Somerset Wildlife Trust, and their land management generates by-products that are suitable for the business described in the Business Plan, and are costly to dispose of. The situation is different with small scale livestock farmers; their priority is finding a cost effective way to improve grazing prospects by reducing rush growth, and farmers within agri-environment agreements will need to achieve this in environmentally sensitive ways. The costs and benefits attached to the two types of land manager will need to be reflected in the contract terms.

There may be a third category of land manager producing something other than wetland materials that could be used to sustain the AD plant; but the model will minimise reliance on alternative supplies and will not include purpose grown material such as maize. A fourth category of land manager will utilise the digestate produced by the AD plant.

Harvesting Contractor

For present purposes it is assumed that this will be an independent party, but there is nothing to prevent any of the stakeholders taking on this role.

The harvesting contractor will use their own specialist plant to gather wetland materials such as common reed, soft rush and poor quality grass from the land managers and deliver it to the AD operator.

AD Operator

The AD operator will own and run a small power plant producing electricity and heat derived principally from the locally harvested wetland materials. Revenue will come from sales of energy and Government sponsored subsidies. There may be other by-products and on site benefits to be deduced and managed. Managing the input (called 'feedstock') is critical so the AD operator needs to control the harvesting process, and the AD operator needs to work with long term supply and sale contracts to support finance and business models.

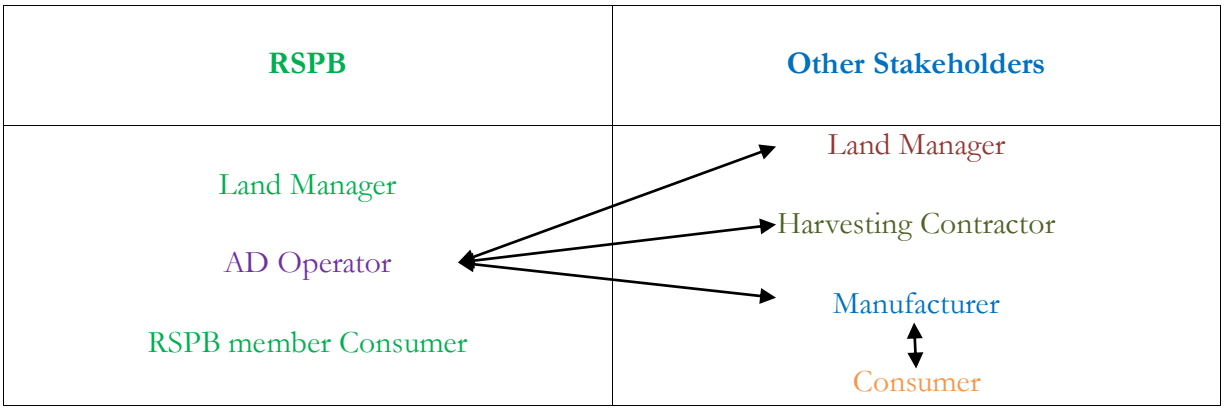
Manufacturer

There might be a range of different small scale local manufacturing businesses that could share a site and usefully purchase power from the AD operator, but the Business Model focuses on one that is community owned and produces biomass briquettes from dried reserve material, for example winter common reed or poor quality hay. These briquettes will then be sold as an alternative to logs as fuel. This manufacturer will be owned by a community benefit society (CBS), co-operative (CO-OP) or community owned company (CIC). A local group called Re-imagining the Levels are interested in taking on this role and experienced in fundraising and community ownership.

Consumer

In this context the Consumer is the local customer buying products from the manufacturer and so supporting the community business, supporting the viability of the AD plant, supporting the sustainability and local aspects of the model, supporting conservation on the local nature reserves and environmental management of the surrounding farmland. Given so many positive outcomes it is expected that many of the consumers will also be subscribers in the manufacturer business and members of one or more of the conservation organisations named as land managers.

It is felt that to drive a new innovative scheme such as this; it would be beneficial to have a lead organisation such as the RSPB at the centre of its delivery. It is therefore useful at this stage to clarify what that critical role would entail by showing the impact of that role and what would fall directly into their responsibility. The arrows in the following table show the pivotal role that the RSPB could play; mostly through its role as AD operator which holds contracts with land managers, the harvesting contractor and the manufacturer.



2.2 Arrangements within the RSPB

It is proposed in the Business Plan that a new trading company is used. There is precedent for this as a similar approach is used by the RSPB in Dorset, in the form of the Ecological Services team. This has the advantage of ring fencing funds and risk. The arrangement also has the potential to simplify later transfer of the AD operator to the community owned manufacturer once models have been fully tested and viability established. The land management aspect of the RSPB would remain separate from the AD operator and would be treated in contractual terms in the same way as the other conservation based land managers.

The consumers who might also happen to be RSPB members would purchase fuel product from the manufacturer.

If the RSPB were to take on this role, for present purposes it should be assumed that the AD operator will comprise a separate company owned by the RSPB and contracting with other parts of the RSPB on the same basis as other stakeholders.

2.3 AD Operator – head lease

A site is required and it is most likely that this will be leased from one of the Land Managers (including local farmers). Normal commercial terms can be used that will be familiar to the RSPB's solicitors, but specialist input may be required to address particular aspects relating to the un-interrupted enjoyment of the site for the proposed uses.

The lease length should at the very least match the projected life of the plant and any local authority planning approval, but there may be extension options. A long time frame is necessary to recoup cost and the lease is likely to extend to at least 25 years.

Rent may need to be determined through negotiation. Unless there is clear data available to help the parties it may be necessary to retain the services of a Chartered Surveyor to establish a fair rent. The rent should comprise a small part of the project cost, but there may be a profit share formula in the lease. There will be legal cost associated with the completion of the lease and potential valuation cost.

There is an existing AD plant within the Somerset Levels that has been used in pilot studies; that site (on a commercial farm) may be used; otherwise there may be options on land owned by the conservation groups. The landlord will need to be enthusiastic and happy to agree viable heads of terms. Location will be limited to sites with necessary access and electrical grid capacity; sites will also need to be large enough to serve all the requirements of the AD operator and those of one or more manufacturers.

While the landlord would normally draft the lease it would be better if the AD operator presents a working draft so that any specialist clauses can be presented at the outset.

The RSPB would potentially be taking a speculative position and so have money at risk whilst negotiating leases, but a lease option may be used so that other aspects of the project can be finalised before entering any obligation to pay rent. A lease option allows terms to be agreed in detail, but the lease commencement deferred while one or more specific issues are resolved; the outstanding issue(s) are normally out of the direct control of the parties. If it is agreed that a specified lease will be entered into by an organisation like the RSPB according to the terms of an option agreement – that would, for example, then allow the RSPB to apply for planning permission knowing that when permission is granted the RSPB will be able to benefit from the approval.

2.4 AD Operator – plant procurement and maintenance

The RSPB have researched procurement options and financial models based on different sizes of AD plant. This research will need to be reviewed in light of feedback from other stakeholders so that the quantity and quality of biomass from the land managers can be accurately estimated and any particular characteristics of the site factored into the layout and design of the plant.

The RSPB could set up the AD operation as any other commercial AD operator, but that would be of much less service to the local environment; so working with adjacent land managers at the outset is necessary.

Planning permission and other statutory approvals will almost certainly be required, and the plant and business will have to meet criteria relating to Government sponsored grants such as the Feed in Tariffs (FiTs) and Renewable Heat Incentive (RHI); so discussion with the manufacturer should also occur at the outset to allow co-ordinated development plans.

The procurement contract should include prescribed maintenance and warranty terms covering at least the first five years of operation.

2.5 AD Operator – Power Purchase Agreement (PPA)

This part is relatively straightforward as terms are dictated by the power supply company, but the AD operator will need to choose which supply company to use. There is scope to select the duration of terms and so fix into a price for energy supply for a shorter or longer term, and that decision is hard as it involves predicting how the market may change. Sale of electricity to the power grid is then straightforward. It is rather less likely that gas will be sold to the grid.

It is likely to be more lucrative to sell energy to the Manufacturer, but that is discussed in Section 2.8.

2.6 Land Manager – terms with AD Operator

There will be a contract between the AD operator and each of the various land managers setting out terms for harvesting wetland biomass and, if necessary, other appropriate local surplus material. The AD operator will be responsible for the harvesting and so in control of the supply of feedstock; although, in practice, harvesting will be limited to certain times of the year in line with ecological and land management requirements, therefore a large percentage of the feedstock will need to be kept as silage adjacent to the AD plant. Drier/woodier reed destined for the manufacturer will need to be kept covered and stored appropriately.

Three distinct sources are identified. Common reed and soft rush cleared from wetland nature reserves (A); poor hay and soft rush from grazed pasture (B) and 'other' surplus product (C). Land Manager may be a poor way to describe the supplier of some of the supplementary feedstock, but supplementary feedstock might be a waste by-product from local farms.

Considering each source in turn;

(A) Conservation site management plans are typically five years in duration and the harvesting contracts will be negotiated with a five year term and based on harvesting a given area (not necessarily the same area each year) selected by the Land Manager. Working with an area rather than a quantity and quality of supply will ensure that the nature reserves are free to manage the land for wildlife purposes without pressure to meet supply contracts. Making the service appealing in this respect, giving the by-product a use and understanding the current cost of disposing of wetland materials should allow the negotiation of a fixed annual cost to be levied on the land manager for the service of harvesting and removal. A coordinated 'professional' approach should also improve efficiency. After opening discussion with the various stakeholders work is required to determine whether the levy under this contract will cover the cost of harvesting and subsidise the AD Plant.

(B) Farmland contracts may need to be shorter as farm management practices typically change more quickly. This could be an advantage as it will allow adjustment in the supply to take place without effecting the management of conservation sites. Farmland contracts may be reviewed and renewed annually. Harvesting farmland may be simpler than harvesting wetland materials from reserves, but the benefit of opening up extra grassland may have less value. The levy for this service may be less than that attached to the reserves' contracts, but pricing will need to be tested after wider discussion with stakeholders. It will also need to be determined how

best to specify terms; harvesting is likely to focus on rush and poor hay rather than reed, but needs to achieve land management/conservation objectives by managing rush through harvesting rather than removing it through chemicals. In practice the areas to be harvested would probably be assessed and agreed by the AD operator each year, so the AD operator will need to be kept abreast of habitat requirements.

(C) Other surplus materials will be sourced and procured as and when necessary; unless there is a specific deficit in the diet of the AD plant. If some particular dietary supplement is required that is not supplied by material from the reserves or local farms then that would ideally be procured under a five year contract to ensure reasonable resilience in supply. Terms here may be dictated by the supplier and in most instances deliveries made by the supplier of the surplus materials. The AD plant will be scaled to suit source A and B and so allow source C feedstock to service other AD plants, but a review of alternative sources and the impact on cost and revenue projections of using other surplus materials will need to be factored into the detailed modeling as part of plant design and specification. Feedstocks from purpose grown energy crops (for example maize) and food waste will not be permitted as alternative feedstocks.

The amount and quality of digestate and the best way of using/disposing of this will need to be assessed during the detailed plant design and dialogue with land managers. It is hoped that this material can be utilised by the local farmers as a substitute for manufactured fertilizers. As manufactured fertilizers are expensive, largely not organic and come with a high carbon footprint this could be a considerable advantage.

(D) The AD operator will need room to stock pile sufficient feedstock gathered at peak times to keep the plant operating all year and room to store digestate, both wet and in a drier form. Spreading digestate on farmland is likely to be comparable to 'muck spreading' and will be governed by legislation and logistical considerations, and so only possible at certain times of the year. Terms need to be agreed that ensure digestate is removed in a timely manner and decisions made early in the planning process regarding whether digestate is stored at the AD site pending distribution or transferred to the recipient on a regular basis to be held there. The former may be preferable as it will improve the negotiating position of the AD operator and allow scope to explore other uses for digestate (discussed in Section 2.8 & 2.9), but storing on site will increase capital cost and increase the area of land held in the lease. The digestate stored on site will be governed by legislation and will need to conform to the necessary permit conditions.

2.7 Harvesting Contractor – terms with AD Operator

The model places the AD operator in control of feedstock while offering a genuine service to the nature reserves and supporting habitat on grazed pasture. Harvesting (managing the land and collecting the by-products) requires specialist equipment and careful co-ordination, and is likely to be an expensive exercise. Harvesting is only likely to occur in a manner that suits the AD plant and conservation objects if it is managed by the AD operator, but the machinery is likely to be owned and operated by a third party contractor.

There will therefore be a contract between the AD operator and harvesting contractor. Tests have already been conducted by the RSPB using specialist plant that ought to allow a reasonable estimate of harvesting cost and negotiation for fair contract terms; but the extent and nature of the material will need to be reviewed. Preferably terms will be agreed that can be linked to land area so cost can be compared readily with the levy referred to in Section 2.6; but despite research there may be a need to test the time and cost involved in the first few seasons and so some risk that harvesting cost versus land manager contract levy will not correspond with the modeling. Work is required to establish the cost of feedstock which will equate to the value of the levy minus the cost of the operation. It is not known at this stage whether that will be a positive or negative number.

The AD Operator will be responsible for gathering the feedstock to sustain the AD plant, but the physical operations will be done under contract by a person with their own vehicle hired for that purpose; so there will be no direct responsibility for the purchase and maintenance of the machinery or wages of the driver.

2.8 Manufacturer – terms with AD Operator

This will be a very close relationship. The AD operator and manufacturer will share a site, have common goals and ideals and so could potentially share staff. It is perfectly possible that the AD operator could own the manufacturing business, but the model specifically introduces an element of community ownership and as a relatively low cost and low risk venture with a broad local customer base a manufacturer of biomass briquettes is a good candidate for community ownership.

The model also anticipates that the community owned manufacturer may later raise additional finance and purchase the AD plant, and so become the AD operator. It is better that an organisation like the RSPB remain in control while concepts are tested, revenues established and risk quantified; but after a suitable time period of say three years it may suit them to reinvest capital employed in the AD business and see the vertical integration of business on the AD operator site.

The manufacturer would use electricity and surplus heat from the AD plant in the briquette manufacture; it will also use harvested material that does not lend itself to use as AD feedstock. The manufacturer may be able to explore other mutually beneficial and related enterprises and there ought to be flexibility in the contract terms to encourage exploration of other options – for example the use of electric or gas powered delivery vehicles and the marketing of clean digestate (non-peat based) compost products to the public.

This intimate relationship could be difficult to define in legal terms unless kept very simple. It is proposed that the manufacturer leases part of the site from the AD operator so that will have to be anticipated in the head lease. The sub-lease will have the same duration and match the head lease in most respects, the rent may be pro-rata equivalent to that paid in the head lease so that effectively both businesses pay the same per square metre for the space they occupy. There would also be provision in the lease for the payment for energy and materials supplied directly by the AD operator. The prices will be defined by reference to known retail and wholesale rates so that both parties benefit from the onsite use of energy. For example if the AD operator could sell electricity for 5p/unit to the grid and the manufacturer buy it from the grid for 12p and all other lease terms are neutral; then the price between the parties might be 8.5p. The actual figure will depend on detailed cost modelling for both businesses and the detailed terms of the lease.

Otherwise there would be simple reference in the head lease and sub lease in the need for co-operation between the parties and potential for fuller and diverse development of industry on the site. The head lease and sub lease will avoid anything overtly prescriptive.

This arrangement should be relatively simple to conclude if it were to be between the RSPB and groups with whom Community Power Ltd (CPL) are already intimately involved, but the next step will require full disclosure and discussion with the community based group.

There could be considerable savings from both parties if staff are shared, but this does not need to be written into the lease. If detailed modelling indicates job sharing is sensible then the matter can be addressed in the employment contracts. There is precedent for the RSPB supporting joint ventures by carrying staff on their payroll, but staff might be on two separate payrolls and so be employed part time by both organisations. The number and roles of staff need to be considered in detailed design.

2.9 Manufacturer – terms with Consumers

There will be two types of consumers; those that have invested in the manufacturer and those that have not.

Work needs to be done to devise the best corporate structure for the manufacturer, but it will be publically owned and ideally it will be majority owned by its potential customers on the hills bordering the Levels and those living on the Somerset Levels. Working with an area focused within say 10 miles of the Avalon Marshes Centre in the village of Westhay. Linking the hills to the Levels as a social exercise is a primary purpose of the community groups sponsoring the new community business, and while secondary perhaps to the RSPB it complements the ideal of expanding local RSPB membership. A share offer document will need to be produced.

Everyone buying biomass briquettes would receive a quality product of known calorific value at a competitive price, but would also support the conservation efforts on the Levels and support local enterprise. Work is required to identify what the price should be and to ensure that the product can be made at a cost that is viable. The product may be delivered to reduce journeys, but could also be available on site to encourage visitors to the Levels and nature reserves, and the pricing adjusted accordingly.

Consumers who are also investors will expect to earn interest on their investment; though this may be minimal, and will expect to receive their capital back in due course. What interest is affordable and what repayment schedule to apply will need to be calculated after detailed financial modelling. Investors would however primarily invest for social reasons and specifically to support sustainable use of surplus materials, local enterprise and conservation. The smaller scale of the manufacturer and relatively low risk makes this viable even with low rates of return.

All consumers will buy products at the advertised cost, perhaps with a small discount for shareholders. There is no obvious need for a written contract.

2.10 Manufacturer – plant procurement and maintenance

The RSPB have researched procurement options and financial models based on different sized plants. This research will need to be shared with the manufacturer and reviewed in light of feedback from other stakeholders and any particular characteristics of the site factored into the layout and design of the plant.

Planning permission will almost certainly be required, so discussions with the AD operator should also occur at the outset to allow co-ordinated development plans.

The procurement contract should include prescribed maintenance and warranty terms covering at least the first five years of operation.

2.11 Contractual arrangements as a whole

These contractual arrangements cannot be devised in isolation. The priority should be full engagement with all known stakeholders to test concepts and the scale of operation. This ought to include the marketing discussed in part 4 of this report. The programme at the end of Section 2.12 is an early guide; a more detailed programme identifying the critical path should be drafted after the engagement with stakeholders and could be refined during the preliminary stakeholder meeting.

2.12 Drawing together the key steps

The following table summarises the next steps to be taken. The references in the left margin relate to the section above where the item is first discussed, the letter in the right margin is used to help order the programme and as a reference in the simple programme that follows. The programme that follows indicates the approximate order and span of activity.

2.11	Internal review of proposals within RSPB	a
2.11	External review of proposals with stakeholders and market testing	b
2.3	Identification of AD operator site	c
2.4	Outline planning application	d
2.4	Establish scale of AD plant after agreement in principle with other stakeholders	e
2.3	Establish rent for head lease	f
2.3	Establish length of head lease	g
2.3	Drafting head lease and agree option	h
2.4	Detailed design of AD plant	i
2.6	Secure options for disposing/using digestate and establish policy for storage	j
2.4	Design of manufacturer plant and premises and integration with AD operator site	k
2.4	Detailed planning application and Environment Agency approval	l
2.4	Agreement of AD plant procurement and maintenance terms	m
2.10	Agreement of manufacturer plant procurement and maintenance terms	n
2.6	Establish need for supplementary feedstock	o
2.6	Establish where to obtain supplementary feedstock	p
2.7	Agree terms with harvesting contractor	q
2.6	Establish levy on land managers for the service of removing their biomass	r
2.8	Establish number of staff and roles	s
2.5	Select energy supply company and PPA terms	t
2.7	Detailed financial modelling for the AD operator	u
2.9	Detailed financial modelling for the manufacturer and establish investor returns	v
2.2	Create new company wholly owned by RSPB	w
2.9	Create new community owned business	x
2.8	Drafting sub lease and agree option	y
2.9	Establish demand for product and retail price	z
2.8	Establish staff employment basis	aa
2.9	Produce and issue a share offer document	bb

These references take the process up to the point finance can be put in place; leases and contracts concluded. The span of time should be used as a guide only.

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Month 1	Month 2	Month 3	Month4	Month 5	Month 6	Month 7	Month 8	Month 9	Month10
a	c	d							
	b								
	e								
		f & g	h						
		i							
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						w&x	y		
						z			
							aa		
								bb	

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3. Community Finance

To conduct a review, including a SWOT analysis of the different financing options for delivery of the Community Model. This should include and not be exclusive to:

a) *Green bonds*
b) *Shares*
c) *Loans*
d) *Peer to peer lending*

Consideration should be shown as to which investment plans deliver the greatest benefits to the community (e.g. co-operative, CIC, etc). Reference should also be made to the Tactical Promotion Plan referred to in the draft business plan.

This relates to the manufacturer not the AD operator and the intention expressed in the Business Plan is that the briquette business will be financed through the subscription of shareholders. The three closest settlements are Wedmore, Glastonbury and Street, two of which have community owned solar photo-voltaic (PV) assets developed by CPL and its directors. It is felt that many of the people who supported those schemes will want to support this project. Announcements through the nature conservation organisations' networks and the Re-imagining the Levels group will provide excellent links to attract interest from potential stakeholders. The opportunity will be open to everyone, but there may be a local bias and/or an organisation membership bias if oversubscribed. Membership will be expanded considerably when the AD plant is transferred to community ownership and so those disappointed at the outset may invest later.

It is estimated that approximately £200,000 is required to build the briquetting plant, but other costs and the need for working capital mean that for present purposes £250,000 is the target sum sought from subscription. This ought to be an achievable sum without recourse to loans, although this will need to be tested by detailed financial modelling.

In simple terms there are two finance options: subscriber investment in shares; or loans. Shares are the preferred option for reasons that should become apparent in the SWOT analysis. Loans are put into three categories in the brief so first it is necessary to define each.

Green bonds may also be called 'climate bonds', but then the context tends to be large scale international finance for environmental purposes. Bonds are a loan, and one that tends to be on fixed terms. At a small local scale CPL has helped the Red Brick Building in Glastonbury

raise finance to pay for solar-pv through the issue of bonds. The Red Brick Building is owned by its members and those members contributed a considerable sum of money to convert a large derelict factory into useful and popular amenity space. Further into the development, bonds were drawn up specifying the length of loan and fixed interest payments. These raised money from the membership without affecting the shareholding or creating a new class of interest yielding share. The exercise was extremely successful and only involved those members that had an appetite and the resources for investment.

Loans are an amount of money that is given to someone for a period of time with a promise that it will be paid back. Some lenders may have ethical or environmental motives, but there is normally an interest payment. For example Triodos Bank borrows from customers that want to support environmental and ethical projects and lends to other customers that meet particular criteria in that respect. The bank does so while trading commercially and so charges more interest from the loan recipient and pays less interest to its investing customers.

Peer to peer lending is a process of direct lending from one party to another; increasingly now exploiting internet based systems. Some of the shares and some of the bonds sold to raise capital for the local Wedmore Community Power Co-operative Ltd were sold via a not-for-profit online brokerage service called Ethex. Members of the public register simple details with Ethex and are then shown current investment opportunities. Community owned ventures provide Ethex with their offer documents and subject themselves to an element of auditing by Ethex so that their proposals can be shown to the public on the register. The web platform simplifies the transaction for both parties and a levy is made by Ethex to cover their costs.

In the context of community fundraising for this small 'green' project there is really no distinction between these financing options unless it is assumed that adding the word 'green' improves sales prospects and that the bonds and loans come from a bank. These distinctions are artificial, but useful in SWOT analysis to emphasise the benefit of borrowing money for 'green' objectives from the community rather than from a bank. In practice such loans are only expected to be required if the membership subscription fails to raise £250,000 and/or to support the later purchase of the AD business from the AD operator, then they are likely to be labelled as 'bonds' and defined in any offer document as being very 'green' and 'peer to peer'.

Further nuances have been introduced in each of the SWOT analyses to further test concepts more thoroughly.

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The community owned briquette manufacture funded by share subscription

This manufacturer is run by and for its members

Strengths	Weaknesses	Opportunities	Threats
Fullest community engagement	Cost of associated membership.	Vested interest in members supporting business by buying product and introducing customers	Disgruntled member investors if financial projections fail.
Securest basis for business	Potentially more risk adverse		Unfamiliar business proposal using unconventional materials
Safer constitutional basis	Relatively unlikely to develop beyond defined business model.		No Government incentive support
	Cost of share offer document		

The community owned briquette manufacture funded by green bonds from a bank

This manufacturer may be run by a small consortium of stakeholders as a not for profit company for the benefit of the reserves and wider community

Strengths	Weaknesses	Opportunities	Threats
Community engagement; exploiting 'green' credentials and benefits to nature reserves.	Cost of loan may threaten business viability	Potentially less risk adverse	Vested interests may not match commercial necessity.
	Securing the loan		
Lower administration cost	Bank charges	Able to react more dynamically due to smaller number of people involved	More likely to make commercial mistakes.
	Smaller customer base		Harder to achieve sales
	Higher Marketing cost		
	Bank may exert control		

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The community owned briquette manufacture funded by a loan from a bank

This manufacturer may be run by a small consortium of stakeholders as a not for profit company for the benefit of the reserves and wider community

Strengths	Weaknesses	Opportunities	Threats
Lower administration cost	Cost of loan may threaten business viability	Potentially less risk adverse	Vested interests may not match commercial necessity.
	Securing the loan	Able to react more dynamically	More likely to make commercial mistakes.
	Bank charges		Hardest to achieve sales
	Smaller customer base		Securing the loan
	Less able to exploit 'green' potential		
	Higher Marketing cost		
	Bank may exert control		

The community owned briquette manufacture funded by a peer to peer lending; which would be ethically based, but not necessarily local

This manufacturer may be run by a small consortium of stakeholders as a not for profit company for the benefit of the reserves and wider community

Strengths	Weaknesses	Opportunities	Threats
Community engagement; exploiting 'green' credentials, benefits to nature reserves and contacts through lending peers.	Cost of loan may threaten business viability	Potentially less risk adverse than with membership.	Vested interests may not match commercial necessity.
Marginally lower administration cost	Smaller customer base than with shareholder members	Able to react more dynamically	More likely to make commercial mistakes.
	Higher Marketing cost		Securing the finance
	Cost of bond offer document		

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The preferred basis

The funding basis cannot be fixed at this stage and needs to be considered within the refinement of the business plan and financial modelling. The intention expressed in the Business Plan is that the briquette business will be financed through the subscription of shareholders, but that is based on a substantial capital requirement at the outset and the need to raise £250,000. If instead the business is based on hired briquette manufacturing plant that would reduce the need for capital to £100,000 and might then favour a loan based model.

The SWOT analysis in this report illustrates concepts, and specific analysis will be required later.

4. Market Research

*To outline details of how the **market research** identified in the draft business plan would be undertaken, together with details on target audiences, information gathering techniques and the anticipated timescales involved.*

Four market research exercises were identified in the Business Plan:

1. There are two closely allied aspects of market research relating to the community ownership. Efforts will be directed at establishing demand for public subscription for the community owned briquette business, and that will be combined with enquiry into demand for briquettes and the value of product.
2. Would land managers pay to have reed and rush biomass gathered and removed from their land, and if so how much would they pay?
3. How much biomass feedstock could be gathered on those terms?
4. What is the optimum balance between harvesting terms and feedstock supply that optimises conservation/land management objectives while achieving a viable business? This may not be the same thing as maximising profit.

The first relates to the manufacturer; the others to the AD operator. Each is reviewed in turn below:

4.1 Demand for shares in the manufacturing business and demand for the proposed briquette product.

A degree of financial modelling will need to be completed and research made into local fuel prices before drafting a simple folded A4 pamphlet explaining concepts and seeking feedback; or perhaps a shorter A5 card. An abridged and updated version of the introduction to the business plan can be used to convey concept; numbers added to convey the anticipated return on investment and suggested prices for different fuel packages included. The reader would then be invited to say whether they would invest in the business, if so how much; and whether they would buy the product described at the prices proposed. There would be space on the pamphlet for more general comment and feedback and an invitation for the reader to leave their name, address and email contact details if they want to be kept informed, but the form can be returned anonymously if preferred.

There will be a box to tick and indicate whether the respondent works for any of the stakeholders listed on the pamphlet.

These pamphlets may still be in circulation long after the market research phase and continue to serve as a publicity tool. They would include a web site address allowing people to complete the form online and later review up-to-date material and progress online. At the outset the website may only be an online version of the pamphlet.

500 would be produced and distributed evenly amongst all the local nature reserves staff within each of the stakeholder groups and amongst the groups sponsoring the Re-imagining the Levels forum. The idea then is that all those people; with perhaps five to ten pamphlets in hand will ask their contacts to fill them in. The pamphlet can either be returned via those distributing them or completed online, but it would be normal to have a postage paid return option, if the pamphlet can be designed to accommodate this. Results will be collated a month after issuing the pamphlets.

This way many of the respondents will be interested in the nature reserves, environmental sustainability and community. That is a valid target for both membership and briquette sales.

There may beforehand be an opportunity to test logs sales produced on the reserves, which is something being explored currently by Natural England. This initiative would facilitate and increase the reach of the pamphlet distribution, but more importantly allow a real world testing of packaged fuel products. CPL is working on that project in parallel with this with a view to tying the projects together later.

4.2 Demand for Biomass Collection

This covers exercises 2 and 3 from the business plan. The target audience is known, small and needs to be both fully engaged and fully supportive. The priority will be securing that engagement and support and that may be achieved by convening a meeting with all relevant parties from all the nature reserves in the target area. The concepts approved by the RSPB should be circulated in advance with a clear note that the distribution is to gauge feedback and seek ideas from an open conference on the matter. These critical stakeholders should not be excluded from the decision making process. This will probably be a day-long conference, ought to include refreshments and will be in two parts; the first part to discuss the concepts and revisions suggested; the second part to address exercises 2 and 3 from the business plan. The participants would then be asked to reflect for a month on the answers and return to a second meeting with their peers to set out the answers.

If these meetings are successful the participants will be asked at the end of the second meeting to map out which other land managers to approach and who in the group should do so. Ideally this aspect of the project will be shared and handled by the participants best suited to the approach. A personal one to one approach to the neighbouring farmers ought to illicit useful

feedback that would then be brought to a third meeting to allow the small group to co-ordinate findings and submit answers to the questions posed.

These meetings could be chaired by the RSPB or CPL, but perhaps inviting CPL to do so might be considered less partisan. There will probably be a span of approximately two months between the first meeting and the third meeting.

The use and distribution of digestate should also be considered, particularly in the second meeting, to see if this is a cost or potential revenue source.

4.3 Ensuring a viable AD operation meets conservation/land management objectives

This presumes there is further work to test concepts and appetite within an organisation like the RSPB before the model is shared with other stakeholders. There should not be a net cost to RSPB as this venture should be profitable, but if the RSPB are taking the lead and securing finance they need to be satisfied that they are achieving worthwhile objectives. This testing will be an internal process relying on committees.

There will then be an element of viability testing borne out of the meetings described in section 4.2, but at the same time there will need to be work done with harvesting contractors to test the cost base. This work would sensibly be completed through the RSPB's existing contacts, but the results shared in the meetings with other stakeholders to support sensible levy rates on land managers.

The first aspect of this has been underway in the RSPB since the draft Business Plan was issued; the external elements will take place in parallel with the matters described in Section 4.2 and so cover the same timeframe.