

## **Business plan for Pennine Community Power Limited**

### **Introduction**

Pennine Community Power (PCP) is an Industrial and Provident Society/Community Benefit Society established with the following objectives:

1. To build a sustainable community, environmentally, socially and economically
2. To develop the profitable supply of energy from renewable resources for the benefit of the community.
3. To ensure the democratic control of renewable energy resources through the opportunity for residents to invest and control such resources.
4. To ensure that the value from development of renewable energy resources shall be retained within the local economy.
5. To create local sustainable livelihoods
6. To provide support to other organisations with similar aims
7. To educate and inform the general public around the issues of sustainability, climate change and renewable energy.

PCP aims to achieve this by generating renewable energy through various projects, which will be financed through community share offer, loan and grant funding. Any profits from these projects will be used to pay a limited return on members' investment and to support the objects of the Society in the communities which are host to the renewable energy projects. The first project will be a community wind turbine.

### **Who are Pennine Community Power (PCP)?**

PCP was initially established as a project of Blackshaw Environmental Action Team, a local unincorporated association, formed over 14 years ago with the vision to create a more sustainable Blackshaw Parish, economically, socially and environmentally.

The current steering group will form the first members of the Society, they are:

Finn Jensen – Finn has lived in Blackshaw Head for over 15 years, was one of the founders of BEAT over 14 years ago and has been one of the BEAT officers since. Finn is a qualified teacher, works for MERCi ([www.merci.org.uk](http://www.merci.org.uk)) as a development worker, has worked as a legal caseworker for ten years and as a manager for 5 years. Apart from BEAT Finn's community work includes four years as a school governor, two years in Hebden Bridge Transition Town, in dCarb Upper Calder Valley and in Blackshaw Optimistic Gardeners. Finn was the founder of Electronic Immigration Network and was a trustee for 14 years.

Paul Willson – Paul Willson is a senior manager in the Power Generation group in Parsons Brinckerhoff, the leading UK consultants in the field. He has over fifteen years experience of the development and operation of many types of power plant, from small straw-fired renewable to large combined cycle plant. He has acted as Lenders Technical Advisor on many power projects in the UK and overseas involving the evaluation of contracts, business plans and budgets so that he will contribute strong technical and commercial experience. He has been an active member of the Blackshaw Head community for the past six years, being a member of BEAT and BOGS, the gardening group, and an active supporter of the Village Fete.

Dr Ashley Sharp - Ashley is a resident of the adjacent parish of Heptonstall where he moved three and a half years ago to found Sustainable Sources Ltd, a company which propagates corals and marine ornamentals for the aquarium trade. As a company director and secretary he has hands on experience of establishing and running a business from start-up. He is an officer of BEAT and has been at the forefront of presenting the sustainability plan to the residents of Blackshaw parish.

Dr Mark Simmonds - Mark is a former resident of Blackshaw parish and lives in the adjacent parish of Heptonstall. Mark is experienced in the issues around community investment and large democratic community enterprises through his work with Co-operatives UK, the trade body for UK co-operatives. Mark is the founder member of a local allotment society and co-ordinates Calderdale Local Orchard Group.

### **Industrial and Provident Societies and community investment**

The Society is a tried and trusted legal form for large democratic enterprises such as The Co-operative, working mens' clubs, agricultural co-operatives and indeed many of the 5,450 co-operative and mutual enterprises in the UK owned by 12 million people with a combined turnover of £33.2 billion.

In recent years there has been an upsurge in the use of the Society legal form, partly due to a growth in co-operatives and mutuals, but also due to the fact that Societies have specific exemptions from some of the legislation around the offer of investment to the public.

The relatively low set up costs of Societies compared to PLCs (the only other possible legal vehicle suitable for offers of investment to the public) mean that communities across the UK are able to finance, own and control their own energy generation, pubs, breweries, shops, leisure facilities, woodland, farms and even a toy shop!

As well as allowing this particularly flexible source of finance, Societies have the additional advantage that the democracy is hard-wired into them. They are owned and controlled by their shareholders and the people who trade with them or live in the communities where they are situated. This control is also on a one member one vote basis rather than the one share one vote basis of the Company model of share ownership.

For more information on co-operatives and mutuals, visit the website of Co-operatives UK, [www.uk.coop](http://www.uk.coop) – which the PCP is a member of.

For more information on community investment, with many examples, visit the Community Shares website, [www.communityshares.org.uk](http://www.communityshares.org.uk)

### **What is Blackshaw Environmental Action Team (BEAT)?**

BEAT was formed over 14 years ago and has the following vision:

Create a more sustainable Blackshaw Parish, economically, socially and environmentally. This to be done by producing more of our own food and energy, raise awareness on sustainability among all generations but particularly the young and generate a substantial income that can be reinvested in the community to further our aims.

BEAT has the following aims:

1. To produce more food locally.
2. To produce more energy locally.
3. Develop sustainable transport for the area.
4. Look after our local environment.

BEAT has 59 members (20-2-2012), holds public meetings every month (except August), produces a bimonthly newsletter, has a website, organises six-monthly village clean-ups and assists Blackshaw Parish Council in the implementation of the Village Plan. BEAT is working on establishing two community orchards and up to 30 allotments, a community wind turbine, a hydro project and photovoltaic solar panels on our local church/community centre plus insulating two of the rooms there.

Blackshaw Environmental Action Team (BEAT) decided to set up an Industrial and Provident Society (IPS) - called Pennine Community Power - as the legal structure for the generation of electricity from renewable technologies, which will generate an income that can be reinvested in the community with the purpose of making the community more sustainable and resilient. Powerinthecommunity.org has been registered as a domain name for the IPS. Our first project will be to establish a community owned wind turbine.

BEAT established a working group/committee two years ago to carry this vision into practice and the group has met monthly since. The group is open to anyone who wants to help do this work. The group contains experienced people in the field of renewable energy, IT and business management but also gets help from outside the group.

## **First project - Blackshaw Head 10kW wind turbine.**

### **1. Why a community wind turbine?**

Based on the top of the Pennines Blackshaw Head has a lot of wind, which makes wind turbines very productive in the area. BEAT also looked into other renewable technologies. None of the landowners in the Parish with suitable streams for a hydro project have agreed to a community owned hydro project on their land. Solar panels (PV and thermal), heat pumps and in our area all other renewable energy technologies produce less energy per pound invested compared to wind turbines. As there is a lot of open land with no buildings, trees and other obstructions in our area it is easy to find suitable locations for a community wind turbine. There are also several landowners willing to have a community owned wind turbine on their land.

### **2. Where will the community wind turbine stand?**

A wind turbine produces most electricity if it stands on a hill. We have therefore chosen a field belonging to Warcock Hill Farm (grid reference SD 95086 27689) as the best available site. In return the chosen landowner receives the electricity produced by the wind turbine for free and Pennine Community Power receives the Feed-in-Tariff. Planning permission was granted by Calderdale Council's Planning Services in March 2012 with certain conditions attached. A 25-year lease has been agreed with the landowner and has been finalised by a lawyer.

### **3. When will the wind turbine go up?**

Subject to enough money being raised to purchase a wind turbine, agreement being reached with DNO/Northern Power Grid and an agreed lease being signed, the wind turbine could start operating in the second half of 2012.

#### 4. Turbine, specification, costs, income and finance

##### 4.1. Turbine specifications

Bergey 10 kW

Supplier – SIAC

Height of mast – 12m (option to increase to 25m)

##### 4.2. Costs associated with turbine (one off)

Turbine purchase and installation - £47,689

Legal costs (leases) - £ 784

Marketing of share offer - £ 1,500

Grid connection - £ 5,425

Contingency (5%) £ 2,575

**Total costs - £57,973**

We are currently in negotiations with Northern Power Grid (NPG) about the costs of the grid connection. NPG has previously indicated a cost of £9,500, but this is likely to fall after negotiation. We have allowed a cost of £5425 in the cash flow model, but a viable downside case at £10,425 is also included in the appendix.

##### 4.3. Annual running costs (turbine and society)

Insurance: £250

FSA (periodic fee): £ 55

P/T Admin £750 (two hours per week @ £7.50 per hour for 50 weeks)

Auditing: £100

Maintenance: £100

Domain name £ 10

Rent: £140 (average of first 10 years)

**Total running costs: £1405 per annum**

**Note:** It will also be necessary to create a contingency fund of £5,200 to allow for future decommissioning of the turbine.

##### 4.4. Projected income

12m mast – £7,260 per annum (index linked)

The figure above assume average windspeed of 5.77m/s, Feed in Tariff (FIT) of 28.1 pence/kWh and payment of 3 pence per kWh of 50% produced and assumed exported to the grid. Different scenarios are explored in the document *PCP 20 year financials* available on the Pennine Community Power website.

The income will be used to service the share equity and any remaining surplus (£2000 - £3000 per annum (base case, 2012 money) ) will be used to further the objects of the community benefit society as defined above. The return on investment and use of surplus will be decided by the members as defined in the rules of the society.

#### 4.5. **Funding and finance** £30,000 grant funding – Village SOS (awarded)

The remaining set up costs (up to £30,000) will be raised by a community share offer.

Anyone investing a minimum of £250 can be a member of the Industrial and Provident Society. The maximum an individual can invest is currently £20,000. It is expected that residents of Blackshaw Head will be majority investors in this first project.

Anticipated annual interest to shareholders – 4% (paid before Corporation Tax (CT))

Anticipated share buyback (after CT) – 8.3% of initial equity per annum from the third year so that all shares will be paid back after 15 years

The various scenarios are explored in the cash flow model appendix below.

#### 5. **Project timeline**

Q1 2012: Registering the Society with the Financial Services Authority.  
Setting up a bank account for Pennine Community Power.  
Finalising leases with landowners.  
Receiving planning permission.

Q2 2012: Registration of the share offer with the Financial Services Authority.  
Preparing the prospectus for the share offer.  
Receiving permission from the District Network Operator/Northern Power Grid.  
Issuing the share offer.  
Marketing.  
Ordering the wind turbine.

Q3 2012: Installing wind turbine.  
Registration for Feed-in-Tariff.  
Production of electricity.  
Commissioning event with media, VIPs, etc.

Q4 2012: First payment of Feed In Tariff.

## 6. Financial predictions

### Projected profit and loss to 2017

	2013	2014	2015	2016	2017	Total
Revenue (£)	5,808	7,551	7,853	8,167	8,494	37,872
Overheads						
Operating costs	3,591	1,345	1,407	1,473	1,544	9,359
Decommissioning fund	-	2,700	2,500	-	-	-
Share interest payable	-	1,120	1,120	1,027	933	4,200
Depreciation	1,284	1,284	1,284	1,284	1,284	6,422
Taxation payable	92	525	776	1,049	1,126	3,567
Total	4,967	6,974	7,087	4,833	4,887	23,548
Profit/(loss)	840.93	576.76	765.92	3,333.88	3,606.46	

## Projected balance sheet to 2017

	2013	2014	2015	2016
	£	£	£	£
<b>Fixed assets</b>				
Intangible assets	-	-	-	-
Tangible assets	52,905 <sup>1</sup>	50,120	47,336	44,551
Investments	-	-	-	-
	52,905	50,120	47,336	44,551
<b>Current assets</b>				
Debtors				
Trade debtors	-	-	-	-
Prepayments and accrued income	-	-	-	-
Cash at bank and in hand	4,436	8,998	13,548	15,833
	4,436	8,998	13,548	15,833
<b>Creditors: amounts falling due within one year</b>				
Bank loans and overdrafts	-	-	-	-
Trade creditors	-	-	-	-
Other creditors including tax and social security	-	-	-	-
Accruals and deferred income	-	-	-	-
<b>Net current assets</b> <sup>2</sup>	4,436	8,998	13,548	15,833
<b>Total assets less current liabilities</b>	57,341	59,118	60,884	60,384
<b>Creditors: amounts falling due after more than one year</b>				
Bank loan	-	-	-	-
<b>Net assets</b>	57,341	59,118	60,884	60,384
<b>Capital and reserves</b>				
Called up share capital	28,000	28,000	28,000	25,667
Grant reserve <sup>3</sup>	28,500	27,000	25,500	24,000
Profit and loss account	841	577	766	3,334
Community benefit fund	-	841	1,418	2,184
Decommissioning fund <sup>4</sup>	-	2,700	5,200	5,200
<b>Shareholders' funds</b>	57,341	59,118	60,884	60,384

1 Value of physical asset depreciates over life of turbine

2 This figure represents the fund for community benefit, which will actually be distributed or invested

3 Grant depreciated as for physical asset for accounting purposes

4 Decommissioning fund established in first years of trading under terms of lease

## **7. Future possibilities**

We hope to have a surplus of between £2000 and £3000 p.a. from year 3 to promote other projects – furthering the objectives of PCP with priorities set by the membership. Once the first project (the 10 kW wind turbine) is established there is a strong foundation for Pennine Community Power to develop new projects. These could take the form of other wind turbines, hydro projects, PV solar panels – all to qualify for the Feed-in-Tariff. Heat pumps, thermal solar panels and biomass can be developed once the details of the Renewable Heat Incentive have been announced. – PCP will also assist other communities developing similar schemes.

## Appendix 1: SWOT analysis

### Strength:

1. BEAT has existed for over 14 years and has a good reputation in the Upper Calder Valley. BEAT has promoted renewable energy to the community for many years, which will make it easier to get local people to invest in the Industrial and Provident Society. BEAT arranged for ten local households to purchase solar panels with half the costs paid through a grant. BEAT has 69 members.
2. BEAT members will play a leading role in Pennine Community Power and have between them substantial experience in managing organisations & businesses and have a great knowledge about renewable technologies.
3. BEAT works closely with the Energy Saving Trust, Calderdale Council, Hebden Bridge Transition Town, Calderdale Local Orchard Group, Blackshaw Optimistic Gardeners, Blackshaw Food Network and Treesponsibility and is a member of Low Carbon Communities Network (LCCN) and is in the process of becoming a member of the Transition Network. These partners are able to assist BEAT setting up and run Pennine Community Power.

### Weaknesses:

1. BEAT/Pennine Community Power has currently no paid staff members– so all work is done by volunteers.  
How to deal with this weakness: A community wind turbine will generate sufficient income to pay for a part-time post.
2. A lease for the cabling crossing a landowner's property has not yet been finalised .  
How to deal with this weakness: The main terms of the lease are agreed but final legal clarifications are outstanding. We intend and fully expect to have the lease signed before we issue the shares.
3. Northern Power Grid has yet to agree terms for the connection of the turbine.  
How to deal with this weakness: The expected cost is included in the cash flow model with a contingency of 50% of the expected value. The cash flow modelling includes a downside case which shows that the project remains viable at twice the expected grid connection cost.

### Opportunities:

1. With the government's and Calderdale Council's targets for reduction of greenhouse gases renewable technologies generally have support from the authorities. Calderdale Council's strategy document 'Calderdales Energy Future' states the Council wants to work with communities to produce green energy.

2. Wind turbines are an established technology and the Bergey wind turbine has been in production for nearly 30 years with very few changes over the years. It has an expected life span of up to 50 years.
3. The Feed-in-Tariff makes investments in a wind turbine safe for 20 years. It can generate a sustained income for the community.

**Threats:**

1. The economic recession will result in some local residents finding it more difficult to invest in Pennine Community Power. We may find it difficult to raise all the money needed through the issuing of shares.

How to deal with this threat: We can extend the deadline for the share offer, advertise the share offer more widely, take private or commercial loans, apply for grants or do fundraising activities. However, before any of this can happen the options will be decided by the existing shareholders at the time – a procedure that is outlined in the prospectus.

2. The landowner with the wind turbine on his/her land could become less compliant with the terms outlined in the lease.

How to deal with this threat: With the landowner receiving free electricity from the wind turbine it is an unlikely threat. However, if it did happen we would enter into negotiations with the landowner to resolve his/her concerns – if necessary through third party. If this fails the wind turbine could be moved to a different site but at a substantial cost.

3. The government could make changes in the Feed-in-Tariff either between the time the share offer is launched and the wind turbine registered for Feed-in-Tariff or retrospectively during the lifetime of the wind turbine. Current government consultation suggests a reduction from 28.1 pence per kWh produced to 21 pence from October 2012.

How to deal with this threat: The prospectus for the share offer will advise investors that they will only receive interest payments if Pennine Community Power makes a profit and that they can only withdraw their investment if the IPS can afford it. - We aim to have the turbine grid connected before October 2012 if at all possible. However, if we do not succeed the project is still financially sound with a 21 pence per kWh payment. – When registering for the Feed-in-Tariff we are contractually guaranteed to receive the tariff being paid at the time of the registration for the next 20 years – plus inflation. If the government breaks this contract it can be legally challenged.

The above threats are identified as options in the attached cash flow.

Updated on 25-6-2012

Pennine Community Power Limited  
Registered no. 31588R

Registered office:  
Warcock Hill Barn  
Long Causeway  
Blackshaw Head  
Hebden Bridge, West Yorkshire  
HX7 7JB  
email – [info@powerinthecommunity.org](mailto:info@powerinthecommunity.org)  
<http://www.powerinthecommunity.org>