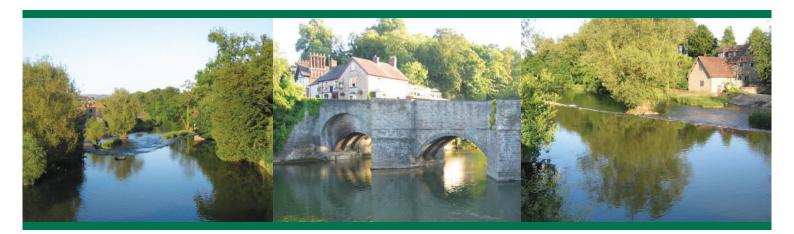


# Ludlow Hydro Co-operative

Share Offer Document



February 2015 Ludlow Hydro Co-operative Limited Registered with the Financial Conduct Authority number 32086R

#### Dear Prospective members,

The power of the Teme at Ludlow has been recognised throughout the ages and in the very name of Ludlow - hlud-hlaw: "a place on a hill by a loud river".

For our ancestors, water power was the main source of energy for their communities. There were many water mills in Ludlow carrying out the basic industries of their times. The mill at Ludford was a corn mill and was last in use in the 1940s.

The pressing issues of climate change and energy security have prompted a new look at water power in the UK. In Ludlow we are fortunate that several of our weirs, including that at Ludford, have been refurbished under the guardianship of the Teme Weirs Trust, thus retaining their potential as a source of power. Ludlow Hydro Co-operative proposes to bring Ludford Mill back to life with a co-operatively owned hydro electric turbine.

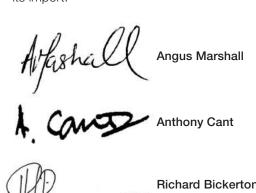
Our Archimedes Screw turbine will feed 30kW of electricity into the local grid - enough for a light bulb in every house in Ludlow. The scheme will be owned and run by local people like you - clean green electricity for Ludlow and a decent return on your investment.

The cost of the turbine itself will be met through a co-operative share offer. We have already funded the development work to obtain planning permission and licences from the Environment Agency which were funded by a small pioneer share offer. Now that we have all the permissions we need, we need to run a larger share offer to cover the cost of the construction itself. This is the share offer presented in this document. Our project is receiving advice from Sharenergy, who have wide experience in helping to set up renewable energy co-operatives including 50 kW of solar panels on the sports centre in Leominster, 90 kW of solar panels on the new Primary school in Leominster and a hydro turbine at Neen Sollars in South Shropshire. We hope you do decide to become a member of Ludlow Hydro Co-operative.

The Directors

#### DECLARATION

Ludlow Hydro Co-operative and each of its Directors whose names are set out below hereby declare that having taken all reasonable care to ensure that such is the case, the information contained in this Offer Document is to the best of his/her knowledge, in accordance with the facts and contains no omission likely to affect its import.



**Richard Bickerton** 

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# **1. SUMMARY OF OFFER**

#### This is a summary of the offer to acquire shares in the Ludlow Hydro Co-operative Ltd (LHC).

#### 1.1. Introduction

Planning work has been in progress at Ludford Mill over the past three years to enable a hydro turbine to be built on the weir. This work has been funded by a pioneer share offer which raised £36,000 to pay for the work involved in obtaining all the permits needed to enable the project to be built.

This development work is now complete, and the site has full planning permission and the necessary licences from the Environment Agency to proceed.

The purpose of this present share offer is to raise sufficient funds to pay for all the equipment and construction costs for the scheme, so that the turbine and generator can be built on the site. It is hoped that the funds can be raised in time for construction to take place before the end of 2015.

#### 1.2. Important Information

This document has been prepared by the Directors of the Ludlow Hydro Co-operative, who are responsible for its contents. Full details on the legal compliance of this document and the terms of the offer and how to invest are set out in the main body of this document. Technical and other words and phrases used in this Offer Document with a particular meaning are defined and explained in the Glossary. This summary should be read as an introduction only and any decision to invest made on the basis of the document as a whole.

### 1.3. The Project

The project's purpose is to generate as much Hydro electricity as possible at Ludford Weir which will displace the use of grid electricity, which is currently primarily fossil fuel based. We aim to make the most of the renewable energy resource available on the site, at a cost effective scale. It is estimated that the project will displace the equivalent of 75 tonnes of CO<sub>2</sub> every year.

LHC will generate revenue from the sale of electricity and receive income from the Feed in Tariff (FIT), which will enable it to pay interest payments to members and to pay them back their original investment by the end of the investment period. It is intended that this will be 20 years based on the term of the FIT payment. Full details of the FIT system can be found on www.ofgem.gov.uk, the website of OFGEM who are the regulators of the electricity industry.

### 1.4. The Offer

This Offer Document seeks to raise sufficient capital by the issue of Offer Shares at £1, payable in full on application, to finance the cost of building and commissioning a hydro generator on the weir at Ludford Mill.

The total cost of the developing and constructing the scheme is estimated to be £399,630 (including contingency).

 $\pounds$ 36,000 has already been raised through the pioneer share offer, so the sum remaining to be raised by this share offer is  $\pounds$ 363,630 (rounded to  $\pounds$ 365,000).

#### 1.5. Tax relief

LHC has received advance assurance from HMRC that the scheme is eligible for SEIS and EIS tax relief.

SEIS is available on the first £150,000 of shares issued by the Society. SEIS offers 50% relief on income tax. The £36,000 shares issued at the pioneer phase need to come out of this allowance, and members who invested in the pioneer phase were given priority on further shares when the main offer opened. Pioneer members have indicated that they are intending to take a further £29,000 shares which would

leave a balance of £85,000 shares with 50% SEIS tax relief open to new members on a first come first served basis.

The remaining shares will be eligible for EIS tax relief which provides 30% tax relief if applications are received before the end of March 2015. The share offer is set to close on 31st March because tax relief may not be available on shares issued after this date.

The higher rate tax relief will be allocated on the basis of first come first served.

More detail on tax relief can be found in section 4.

#### 1.6. Launch and closure dates

The share offer will be opened for applications on 26th February 2015.

The closing date is 31st March 2015. The directors reserve the right to extend the share offer if the full amount is not raised by this date.

#### 1.7. Maximum and minimum shareholding

Investors should regard these Shares as a long-term investment. They may subscribe for a minimum of 100 and a maximum of 100,000 offer Shares at their £1 par value.

Once the final share offer is completed, all shares issued, whether through the pioneer offer or the main offer will be identical.

The only aspect that differs is a members eligibility for a tax rebate on the shares which will depend on the individual members tax status and whether the share offer that the shares were purchased through qualified for SEIS or EIS.

#### 1.8. Project return to members

Returns to Members are calculated according to projected income and expenditure during the life of the Hydro Installation using the assumptions stated in the Offer Document. The projected rate of return over the expected life of the Project equates to an internal rate of return (IRR) for members of 5.5% per annum over the 20 year project period. The benefit of tax relief is in addition to this.

### 1.9. Owning and withdrawing shares

Shares will not be traded on a recognised stock exchange and shares are not transferable. Members may apply to withdraw shares after the end of the third year of operation. Share withdrawal may be authorized at the discretion of the board.

After processing any authorized voluntary withdrawal requests, remaining share capital will be repaid to the remaining members in installments annually as income accumulates in LHC, subject to profits being generated and a specified contingency reserve being retained within LHC.

Each shareholder, whatever the relevant stake, automatically becomes an equal co-operative member of the Ludlow Hydro Co-operative on a one member one vote basis.

### 1.10. Risks

All investment and commercial activities carry risk. Investors should take appropriate advice and make their own risk assessment whilst bearing in mind the social and environmental aspects of the Project.

Those interested in investing should do so only after reading this document in full and taking appropriate financial and other advice. This share offer is not covered by the Financial Ombudsman Service or the Financial Services Compensation Scheme.

# 2. BACKGROUND

This section provides the background to the project and the organisations that have put it together.

### 2.1. Co-operatives & Renewable Energy

The co-operative movement originated in 1844 with the formation of a food store in Rochdale, Lancashire, organised by a group now known as the Rochdale Pioneers. These 30 founding members were frustrated with the dishonest practices and high prices charged by local merchants, and set up a new shop based on ethical principles and owned by its own customers. From this beginning, the co-operative movement has spread throughout the world, with every co-operative based on the same principles of wide ownership, and a set of values and principles based around equality and democracy.

Co-operative ownership of renewable energy has been growing rapidly in the UK and Europe over the past 15 years. The first renewable energy co-op in the UK was Baywind Co-operative in Cumbria, established in 1997. Eleven years later, Torrs Hydro in Derbyshire became the UK's first hydropower co-operative. There are now renewable energy co-operatives across the UK and across the various technologies.

The Marches area is becoming a centre of excellence with Leominster Community Solar, Neen Sollars Community Hydro and Leominster Sunrise co-operative up and running. All have been supported by Sharenergy Co-operative.

Co-operative Societies are democratic structures with the legal ability to raise money directly from members of the public. With a one member one vote system and a board elected from the membership, they offer a fair and transparent way to operate a community owned renewable energy business. They also have the power to prioritise investment from the local area, ensuring that, as much as possible, financial benefits from renewable energy are felt by people in the locality.

### 2.2. The Ludlow Hydro Project

There are four weirs in Ludlow. There is already a smaller hydroelectric scheme at Dinham weir installed by Dinham Millennium Green Trust. The remaining weirs have all been subject to significant study for the development of a hydro electric scheme.

The owners of Ludford Mill first investigated in 2011 whether a hydro generator could be built as a private scheme and commissioned Mann Power Consulting Limited to conduct a feasibility study. This indicated that a turbine was indeed viable. The owners however had subsequent conversations with Sharenergy about the project and made the decision to work with Sharenergy to develop the scheme as a co-operative. As a consequence, Ludlow Hydro Co-operative (LHC) was formed.

**Ludlow Hydro Co-operative** (LHC) was formally established in May 2013 and has 3 founding directors. LHC is one of several renewable energy co-operatives being developed with support from Sharenergy.

**Sharenergy** is a Shrewsbury-based co-operative which helps community groups to establish community owned renewable energy co-ops. Sharenergy is a spin-off from Energy4All, a not-for-profit company which owes its origin to Baywind community windfarm in Cumbria.

# **3. BUSINESS OVERVIEW**

The sole planned activity of Ludlow Hydro Co-operative is the ownership and management of a Hydroelectric Installation at Ludford Mill.

#### 3.1. The Site

Ludford Mill is situated in Ludford, a parish on the edge of Ludlow which is a market town on the river Teme in South Shropshire. The mill is situated on the south end of a horseshoe weir immediately below Ludford bridge. The weir was renovated in 2004 by the Teme Weirs Trust at a cost of  $\pounds$ 300,000. The restoration included the construction of a new fish pass and also a canoe pass. There was another mill (Hockey's Mill) on the opposite bank of the same weir.

Ludford Mill itself is now a private dwelling and has been recently renovated. The original water wheel is still in place, although no longer in working condition. The water wheel was last used in the 1940s.



Ludford Mill on the river Teme

The Weir is under separate private ownership, and leased to the Teme Weir Trust under a long (999 years) lease. The proposed turbine would be located partly on land owned by Ludford Mill and partly on land leased by the Teme Weirs Trust (TWT).

As leaseholders of the weir, TWT is willing for a hydro turbine to be built in this position and LHC are in the final stages of agreeing with TWT an option and lease that would permit the Society to build and operate the turbine.

The owners of the mill are likewise willing for a hydro turbine to be built in this position and are in the final stages of signing an option on a lease that would allow the Society to build, operate and access the turbine on and from land belonging to Ludford Mill.

Installation and ongoing maintenance will require access over land that belongs to the owners of The Old Bell House. LHC are in the final stages of agreeing an option with this landowner to allow access to the site of the proposed turbine during the period of construction and for ongoing maintenance during the lifetime of LHC.

**Note:** All options and leases are nearly finalised, (agreement has been reached in principle) but none of the money raised through this share offer will be spent until all agreements are actually signed, and if this proves not to be possible, all share monies will be returned to applicants.

#### 3.2. Operation of the Hydro Installation

Mann Power Consulting Ltd (MPCL) are a leading installer of low head hydropower schemes. Angus and Jenny Marshall, owners of the Ludford Mill, commissioned MPCL in 2011 to carry out a survey of the site in order to determine the most appropriate installation. This revealed a number of alternatives of which the preferred one was a 30kW Archimedes Screw to be located between the mill and the weir. A shorter independent survey has also been carried out by Derwent Hydro. This was commissioned by Sharenergy. This report corroborated the main findings in the MPCL report.

On this basis, MPCL were commissioned to prepare more detailed designs and to prepare and submit all the necessary applications for planning permission and for the required licences from the Environment Agency. This is part of the work that was funded by the pioneer share offer.



The proposed location - an existing overflow spill channel

This resulted in more detailed plans being drawn up, and the planning applications and EA licence applications that were submitted in the Autumn of 2014 and which resulted in successful approvals in December 2014.

The turbine proposed would be constructed alongside the Ludford Mill, where there is currently an overflow spill channel.

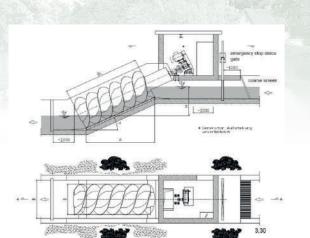
The turbine will be an Archimedes screw, 2.5m in diameter and about 4m in length. The Archimedes Screw is a very old technology, developed in ancient Greece for pumping water and more recently being used in reverse mode to generate electricity. The Archimedes screw is a reliable and simple design.

This screw would be installed in a trough built into the structure of the weir so that the screw lies at an angle of 22° to the horizontal. The screw will be hidden from view by masonry walls clad in stone that will blend with the existing stonework of the Ludford Mill, and capped with a removable wooden lid.

Over the past 10 years, many Archimedes Screw schemes have been commissioned in the UK. The majority of these are private schemes, but there are community owned Archimedes Screw turbines installed at New Mills in Derbyshire, at Settle in Yorkshire and elsewhere – with many other schemes under development. Many schemes welcome visitors.

The main points specific to the proposed installation are as follows:

 There is an existing overspill sluice on the end of the weir just in front of the mill building. The turbine will be installed in this location, with this sluice being removed and the gap widened to take the turbine.



Overview of the Archimedean Screw Turbine



Proposed view of the screw at Ludford Mill

- 2) The turbine will divert a maximum of 3.5 cubic metres per second of water from the weir. The Environment Agency hydropower guidelines suggest the maximum abstraction rate based on the river flow at Ludford would be about 11 – 12 cubic metres per second, but limitations on access to the site mean that the proposed turbine is smaller than the flow at this weir could sustain and so the turbine will divert far less than this maximum allowable by the EA.
- 3) The yield of electricity depends on the annual water flow. Flow data was collected from the Environment Agency gauging station in Tenbury Wells and adjusted to account for the difference in catchment size. This flow duration curve has been used to estimate the total energy that would be extracted from the turbine
- 4) Energy yield has to take into account conditions that are set by the Environment Agency, for instance, that no water could be taken for the turbine when the river level is below a specified point. This cut off in low water conditions is called the "Hands off Flow" and is to ensure that the fish pass retains sufficient flow to work, and that there is sufficient visual amenity flow over the weir.
- 5) Archimedes screw turbines have been proven to be safe for downstream passage of fish and the EA are satisfied that this is acceptable. The turbine is slow moving (20 30 rpm) and fish travel through the turbine unharmed. (see www.fishtek.co.uk/hydropowerresearch.html).
- 6) A study has been commissioned by LHC to investigate whether the turbine will reduce the effectiveness of the existing fish pass and this study confirmed that the fish pass will not be materially affected by the turbine, as long as the Hands off Flow level is set appropriately.
- 7) The installation will incorporate an eel pass, and a bypass channel that can be used to allow mature salmon (Kelts) to pass more easily, thus migration of fish will be overall improved by the addition of the turbine.

- 8) A Phase 1 habitat survey has been carried out. This established that it is unlikely that any protected species are present and would be affected by the construction. In this residential context, the proposed scheme is unlikely to disrupt the physical activities of badgers, otters or water voles, nor is habitat present which is suitable for these species, nor will any trees suitable for bat roosts be affected.
- 9) Flood Risk Assessment has been carried out and this has demonstrated that the scheme as proposed will not create any additional flood risk that is of concern to the EA.
- 10) Studies of noise impacts have been carried out and have identified no cause for concern. It is proposed to construct a low height chamber over the machinery which will incorporate suitable sound insulation.
- 11) A 2.5m diameter 30kW screw has been chosen for the installation. The main decision factors relate to the cost and logistics of transporting the screw to the site and lifting it into position, because access to the site is extremely restricted.
- 12) The energy capture estimated by Mann Power for the screw would be about 170,000 kWh per year. This represents a capacity factor of about 65%. This allows for the fact that during low water in summer, there will be significant periods of time when there will be insufficient water to power the turbine without causing the weir to be dry and during these times the screw will not operate.
- 13) Ludford Mill is listed and consequently the project required listed building consent. This was submitted at the same time as the planning application and was accepted.

#### 3.3. Microgeneration Certification Scheme

The MCS certification, which is needed for other technologies in order to claim the FIT, has been waived in the case of hydropower installations. This situation will be monitored, and if certification becomes a requirement, LHC will ensure that all certification requirements will be met to ensure that the scheme is FIT compliant.

#### 3.4. Electricity sales

The turbine will be connected to the electricity supply for the Mill building. The DNO (District Network Operator, who is Western Power Distribution) have been consulted and have confirmed that an export of 30kW is possible with the current infrastructure and that no reinforcement is required.

The majority of the power will be exported into the local grid, for which LHC will receive an export fee of around 5p/kWh. LHC will take out a Power Purchase Agreement with an electricity supplier to enable it to sell direct to the supplier rather than take the OFGEM export tariff as direct sale to a supplier will enable a higher price to be obtained.

The Mill itself would be able to make use of up to an agreed cap of 5,000 kWh per year at the same price as the electricity is sold to the grid. This means that the Mill gets part of its electricity supply at a lower rate than residential tariffs, and that LHC is neutral as to how much of the output the Mill itself uses. The financial benefit that this offers to the Mill is taken into account in calculating the rental payment which the Mill will also receive.

As part of the access agreement negotiated, an electricity supply on the same terms will also be provided to the adjacent Old Bell House, as long as this physical installation can be done effectively and for less than £3,000, this installation cost to be borne by The Old Bell House. LHC will be neutral to the quantity of electricity sold under this agreement.

#### 3.5. Project Timeline

This is an indicative timeline showing planned progress along a realistic path – but can and will change as required.

December 2014	Receipt of formal planning permission and EA licences
February 2015	Options signed with landowners and TWT
February 2015	Share offer launched
March 2015	Share offer complete
May 2015	Construction contracts issued
July 2015	SEIS tax relief forms issued
Summer 2015	Construction (this will be dependent on weather conditions and water levels to allow in-river working)
Summer 2015	Second AGM for the Society
Autumn 2015	Commissioning
Spring 2016	EIS and SITR tax relief forms issued

# 4. FINANCIAL PROJECTIONS

The anticipated total cost for a 30kW Archimedes screw, including all additional services, obtained from quotations received based on the design drawings submitted as part of planning permission is £399,630. LHC will be liable for all ongoing operating costs associated with the installation and will negotiate the sale of electricity and benefit from the Feed in Tariffs and any other current or future incentives.

Competitive quotations will be used as the basis for all contracts that will be issued in respect of supply and installation of the Archimedes screw turbine.

The breakdown of the capital needed to complete the construction and installation (including payment of some costs carried over from the development phase) is as follows:

#### Costs necessary to construct and commission the hydro turbine

Feasibility studies	£ 9,586
Planning permission and EA licences	£ 24,495
Legal costs	£ 5,250
Sharenergy services	£ 17,560
Marketing costs	£ 3,000
Detailed design	£ 10,000
Civil engineering	£ 120,000
Mechanical and electrical	£ 174,409
Contingency (10%)	£ 36,330
Total	£ 399,630

**Note:** the total payment to be made to Sharenegy will comprise £17,560, which includes setting up the Registered Society, liaising with and commissioning specialist consultants, project managing the development phase of the project, setting up financial projections, preparing, marketing and administering the pioneer and main share offers. Much of this is done at risk in the early project stages.

The total sum required is £399,630. £36,000 has already been raised and thus the sum to be raised by this share offer is £363,630 which has been rounded to £365,000.

Financial Projections in spreadsheet form prepared and approved by the Board are summarised on the following page. The figures are based on contracts entered into and estimates received by LHC. The Directors take responsibility for the reasonableness of the Projections in this Offer. Returns to Members are calculated according to projected income and expenditure during the life of the Hydro Installation.

The annual amount available for payment as interest on Members' capital is divided by the number of Shares in issue to give a projected rate of return. LHC will commence operations when electricity and FITs revenues commence. The strategic objective is to optimise returns from the Hydro Installation whilst promoting the concepts of renewable energy and energy efficiency. The Projections are based on a project which initially lasts 20 years.

At the end of the 20 year period the income to LHC will reduce sharply because of the ending of the FIT payments. The turbine cost will be fully depreciated and is likely to need some refurbishment. The lease with Ludford Mill will end at the point at which FIT payments cease.

The lease negotiated with the landowner of Ludford Mill states that the ownership of the turbine would transfer to the landowner of Ludford Mill at this point and the financial projections are based on this premise.

### 4.1. Tax relief

The scheme is designed to be eligible for tax relief. Announcements in the Autumn Statement have meant that the tax relief arrangement for community energy schemes is in transition and the scheme is designed to accommodate this transition.

The tax relief that is available currently for community energy generation schemes is the Enterprise Investment Scheme (and the related Seed Enterprise Investment Scheme). See below 4.3 for full description.

The regulations governing tax relief are expected to change for the new financial year starting on 6th April and it is expected that SEIS and EIS tax relief will no longer be available on shares in community energy co-operatives after this date but exact details are not yet known. The Directors will monitor the situation and take advice, and any decision to extend the share offer (if necessary) will be influenced by the regulatory regime that is put in place by the treasury for post April 6th.

#### 4.2. Enterprise Investment Scheme Tax Relief

Enterprise Investment Scheme (EIS) Tax Relief, and the related Seed Enterprise Investment Scheme (SEIS), are tax reliefs that offer relief on income tax. Where this applies, individuals that buy eligible shares get a rebate on the UK income tax that they have paid. The relief is 30% for EIS and 50% for SEIS.

LHC has received advance assurance from HMRC that this scheme is eligible for EIS and SEIS tax relief.

SEIS can apply to only the first £150,000 of capital received by a Society and where the shares are issued within 2 years of the establishment of the business. EIS tax relief (at 30% relief) would apply to shares issued after the first £150,000. (note that £36,000 shares have already been issued by this Society under the pioneer share offer).

In this share offer, the SEIS shares will be allocated on a first come first served basis after allocation of priority shares to pioneer members. Members of the pioneer scheme have indicated that they wish to take up a further £29,000 shares which will leave £85,000 shares with SEIS eligibility available for new members.

Please note that you cannot claim more tax relief than you have paid in income tax. The relief is given by way of a reduction of tax liability, providing there is sufficient tax liability against which to offset it.

In the event that when members eventually withdraw their shares they are worth less than their purchase price, the loss incurred (minus the initial 50% relief) can be set against income for tax purposes in that year (or the previous year).

For further details about the EIS and SEIS schemes you are advised to consult the HMRC website.

The Board will endeavour to ensure that this share offer qualifies for EIS and SEIS tax relief. However, the Directors are not in a position to guarantee this. Applicants should take their own advice as to whether they are eligible for SEIS tax relief.

There are certain reliefs on capital gains tax if capital gains are re invested in SEIS and EIS eligible shares. More information can be obtained from the HMRC website at http://www.hmrc.gov.uk. We recommend that you get advice from a financial adviser if you believe that you could benefit from this.

#### **SEIS Example**

Jenny invests £20,000 in SEIS qualifying shares. The SEIS relief available is £10,000 (£20,000 at 50%). Her tax liability for the year (before SEIS relief) is £15,000 which she can reduce to £5,000 as a result of her subscription.

For full details see http://www.hmrc.gov.uk/seedeis/.

#### 4.3. 20 year income and expenditure projections

See following page.

#### 4.4. Assumptions

The Projections are based on the following principal assumptions:

- That annual production levels of the 30kW Hydro Installation will be in line with the estimates made, averaging 170,000 kWh per annum. In the event that the predicted energy production falls below the projected levels the revenues of LHC will be reduced. In the case of a technical fault, this is intended to be covered by warranties and/or insurance, including for losses incurred as a result.
- 2) Current expectations relating to the global energy market, the UK electricity industry, UK government policy, and the desirability for and promotion of electricity from renewable sources, will remain reasonably consistent and reasonably favourable to the Hydro Installation over the next 20 years, resulting in continuing demand for electricity and related environmental attributes produced by the Hydro Installation.
- Prices at a reasonably similar level to those currently obtainable will be achieved through the life of the Hydro Installation (after allowance for annual inflation).
- 4) Operation and maintenance costs will be incurred from the start of operations. Maintenance costs will continue to rise as the equipment gets older. It is assumed that operations and maintenance costs will rise no faster than the income.
- 5) It is known that debris currently collects above the weir and this needs periodic clearing. The financial projections include provision for manual debris clearance to be carried out on an ongoing basis.

Any of the assumptions not being realised is likely to result in adjustments to the Projections within the overall Project plan. Projections and assumptions such as those above are inherently less reliable over longer time spans.

Year		1	2	3	4	5	years 6-10	years 11-20	year 1-20
Generation (kWh)	2	170,169	170,169	170,169	170,169	170,169	850,845	1,701,690	3,403,380
Profit/Loss Account									
FIT income		30,681	31,602	32,550	33,526	34,532	188,837	472,694	824,423
Electricity sales income		8,849	9,203	9,571	9,954	10,352	58,312	157,260	263,500
LECs		851	876	903	930	958	5,237	13,109	22,863
Triads		270	278	286	295	304	1,662	4,160	7,255
Income		40,651	41,959	43,310	44,705	46,146	254,047	647,223	1,118,040
Depreciation over 20 years		19,982	19,982	19,982	19,982	19,982	99,908	199,815	399,630
Operating and admin costs		12,579	12,970	13,374	14,770	15,228	83,538	210,863	363,323
Expenditure		32,561	32,952	33,355	34,751	35,210	183,446	410,679	762,953
Profit		8,091	9,007	9,955	9,954	10,936	70,601	236,544	355,087
Bank interest received		0	0	150	450	749	1,874	3,749	6,972
Profit including bank interest		8,091	9,007	10,105	10,403	11,685	72,475	240,293	362,059
Cashflow									
Bank opening balance		0	19,982	39,963	15,000	15,000			
Capital expenditure -3	399,630								
Income		40,651	41,959	43,310	44,705	46,146	254,047	647,223	1,118,040
Bank interest received		0	0	150	450	749	1,874	3,749	6,972
Expenditure (minus depreciation)		-12,579	-12,970	-13,374	-14,770	-15,228	-83,538	-210,863	-363,323
Interest to members		-8,091	-9,007	-10,105	-10,403	-11,685	-72,475	-240,293	-362,059
Share capital 3 (receipt and repayment)	99,630	0	0	-44,945	-19,982	-19,982	-99,908	-214,815	-399,630
Bank closing balance 0	)	19,982	39,963	15,000	15,000	15,000			

Member IRR (*no tax relief*) 5.5% Member IRR (*30% tax relief*) 8.7% Member IRR (*50% tax relief*) 11.7%

**Note:** IRR is calculated on the basis that the share application is made in March 2015, tax relief is received back in February 2016, and the first interest payment is received in March 2017 for generation in the 2016 tax year.

#### 4.5. Notes on the Financial Projections

- 1) The total cost of £399,630 is based on quotations received for the construction costs plus the development costs covered in this share offer and provision for money already spent in the development of the scheme to date by the landowners and Sharenergy. Further quotes will be obtained before contracts are issued to ensure that the best value is obtained. The final contractors have not yet been selected.
- 2) The projections in this offer document are based on data gathered or calculated by Mann Power Consulting Limited during the process of preparing plans for the planning application and the abstraction data agreed with the Environment Agency as a condition of the impoundment licence. The Environment Agency has written a letter to confirm that an impoundment licence only is needed and an abstraction licence is not required.
- 3) Inflation on all income and expenditure other than grid electricity is set at 3% per annum over the 20 year period. The inflation rate assumed for grid electricity is 4% p.a. i.e. 1% above inflation.
- 4) Income is based on the Feed in Tariff, and on the electricity being exported at the most beneficial rate. It is assumed that Ludford Mill and The Old Bell House will be permitted to use up to 5000 kWh each at a cost equal to the value of exporting this same electricity (currently around 5p/kWh) and can use additional generated electricity at a price of 20% below the retail price of electricity from

their standard electricity supplier. This makes LHC at worst neutral to the amount used by these two neighbours. Note that the Feed in Tariff is guaranteed for the full 20 years.

- 5) Depreciation of equipment is straight-line over the 20 year period and creates a fund to pay back members capital. Capital will be returned to members each year as cashflow allows, subject to maintaining a contingency reserve within LHC and subject to maintaining EIS eligibility (i.e. capital cannot be returned within three years of commencement of electricity production).
- 6) Business rates are assumed to be zero for the first three years due to the recent Shropshire Council exemption for social enterprises. Shropshire Council does not publish information about how long this exemption will continue for and the three year window used in the model is an estimate only.
- 7) Insurance costs are set at £1000/year this is an estimate based on similar schemes elsewhere.
- 8) Administration costs of LHC are set at £2500/year. This is the standard 'small co-ops' package from Sharenergy which covers maintenance of membership database, phone, email and postal support of members, preparation of AGM papers and annual return, FCA and other regulatory fees. LHC will produce annual accounts and as a small business will apply for the exemption from audit.
- 9) Interest on cash in bank is set at 1.5%.
- 10) All profits are allocated to depreciation charge or distributed to members so the projections do not predict a liability for Corporation Tax. Note that members are likely to be liable for Income Tax on their returns from investment.
- 11) Normal monthly cash expenditure is expected to be small and will be amply covered by the generation and FIT income. The Projections anticipate that Ludlow Hydro Co-operative will be cash positive each year from the commencement of operations.
- 12) Projections are based on a 20 year timescale. After this time, income will reduce significantly as the FIT payments will cease and the lease will expire. It is a condition of the agreement with the landowner that at the end of the 20 year FIT period, ownership of the turbine will be transferred to the landowner at the Mill.

# **5. RISK FACTORS**

All investment and commercial activities carry risk, and investors should take appropriate advice and make their own risk assessment whilst bearing in mind the social and environmental aspects of this investment opportunity. Attention is drawn to the following:

#### 5.1. General investment risks

- The value of shares can fluctuate according to the value of the underlying business.
- Offer Shares will not be transferable or traded on a recognised stock exchange.
- Members wishing to withdraw their share capital will be able to apply to the Board for this purpose after the third year of operation. Withdrawal of share capital is at the discretion of the Board.

#### 5.2. Renewable energy industry risks

Government policy towards renewable energy may change. Throughout the operation of the FIT and
previous similar schemes such as ROC and NFFO, the Government has maintained the commitment
to the process of 'grandfathering' which ensures that whatever tariff a project is registered for at the
commencement of operation, will remain the same for the duration of the FIT period, (which is 20 years
in the case of hydropower). Therefore revenue from FITs for LHC should not be affected by any future
changes to the FIT. This payment is also index linked to RPI. The figures used here are those proposed
by Government in the current FIT review.

- New technology inventions and developments may render existing technologies and equipment obsolete though such applications require long lead times and are unlikely to render existing renewable energy projects redundant.
- Long-term changes to weather patterns could result in lower levels of production. However, there is no evidence that LHC is aware of that this will affect hydropower production at this site .
- Abnormal short-term weather conditions could affect expected levels of generation, although overall patterns outside anticipated parameters are unlikely.
- Operational costs may rise faster than anticipated during the life of the Project

#### 5.3. Risks specific to Ludlow Hydro Co-operative Share Offer

• The project may fail to raise the required capital through its main share offer. We believe that the overall benefits of the project and the target member return will suffice to raise the necessary sum, based on the experience of other Co-operatives in the region.

However, share capital will not be spent until either a) sufficient share capital has been raised to cover the full costs of the scheme, or b) if after ample time has elapsed and sufficient applications have not been received, loan capital will be secured to enable the scheme to be funded.

#### 5.4. Risks specific to Ludlow Hydro Co-operative Longterm operation

- Warranties and insurance will be in place in the event of mechanical breakdown of the equipment and will cover loss of income for associated periods of business interruption. Accidental and malicious damage will also be covered under insurance and public liability insurance. However equipment failure due to exceptional circumstances would increase maintenance costs and this would impact on co-operative income.
- The government has exempted hydro installers and equipment from Microgeneration Certification Scheme (MCS) registration. Should this exemption lapse and our chosen installers or equipment not qualify under the scheme then the project might be ineligible for FIT. As the installers and equipment are on the transitional MCS list this is however considered a low risk.
- We believe that LHC qualifies for Shropshire Council's new business rates exemption for social enterprises. Should this prove not to be the case the project might be liable for business rates, which would reduce net income.

#### 5.5. Scenario sensitivity

There are several factors that will affect the overall return of the shares and constitute a risk to the investment. Two of these risks are 1) Annual energy generation, and 2) inflation rate of energy costs.

In order to demonstrate the sensitivity of the return to potential risks, scenarios have been run under different assumptions to identify the variation in return under these scenarios.

The scenarios modelled are energy generation, and electricity price inflation. The table below illustrates these variations

#### Variation of rate of return due to variation in electricity price index and annual energy generated.

	Electricity price inflation (average rate of 2.5% RPI assumed)		
Generated Energy	0% above RPI	1% above RPI	2% above RPI
10% below forecast	4.0%	4.2%	4.5%
170,000 kWh (central forecast)	5.2%	5.5%	5.7%
10% above forecast	6.4%	6.6%	6.9%

# 6. MANAGEMENT AND ADMINISTRATION

#### 6.1. Ludlow Hydro Co-operative

Ludlow Hydro Co-operative Limited was incorporated and registered with the UK Financial Conduct Authority as a Registered Society number 32086R on 30th May 2013. It is domiciled in England, with its registered office at Ludford Mill, Ludford, Ludlow, SY8 1PP.

A Registered Society is a legal form providing the structure of a co-operative. It is owned by and operated for the benefit of its members and/or the community. Members elect directors and each member has one vote in a members' meeting regardless of the number of shares held. Members are protected by limited liability and are only obliged to contribute the initial cost of their shares. A Registered Society is governed by Rules, largely in standard form, which are approved by and registered with the Financial Conduct Authority. A copy of Ludlow Hydro Co-operative's Rules is available by application to LHC (see back of this Offer document for contact details).

### 6.2. The Board

The current board is a transitional board, for the purposes of setting up LHC, running the share issue and overseeing the installation of the Hydro Installation. Board elections from the new membership will be held at the first AGM following the pioneer share offer

#### **Director: Angus Marshall**



Angus has had a varied career initially as an Army officer specialising in logistics followed by Royal Mail where he worked as a senior manager in project management and buildings maintenance. Since leaving Royal Mail Angus has specialised in the management of residential and commercial property. He lives in Ludford Mill along with his wife and two daughters and is keen to further develop hydro power opportunities. Angus is also a trustee of Shrewsbury Homes for all, a housing charity and is a Magistrate.

#### **Director: Anthony Cant**



After qualifying as a chartered accountant with Cooper Brothers (now PricewaterhouseCoopers), Tony began his career in industry, initially on the finance side, and soon after in general management, rising to main board directorships of public limited companies in the garment manufacturing industry. He has since undertaken trouble shooting assignments in Hong Kong and the UK on behalf of retail banks, and The European Bank for Reconstruction and Development as country co-ordinator for Russia and Poland. He has also undertaken project work in several other European

countries. He was a member of the West Midlands Industrial Development Board, a former committee member of the Ironbridge Gorge Museum Development Trust and a mentor of the Princes Trust.

#### **Director: Richard Bickerton**



Richard is a chartered civil engineer and certified project manager (via the Project Management Institute). In a varied career he has worked on contracts in site project management and CAD/CAM designer roles, with some specialization in timber frame restoration and reinforced earth engineering. During this time he has worked for various local, national and international companies at senior management and directorial levels. Since 1998 he has worked for a major IT services outsourcing business, project managing due diligence on global outsourcing deals. Since retiring from this role he has

concentrated on his photography, golf and his position as a trustee of the Shropshire Music Trust.

#### **Company Secretary: Jon Halle**



Jon is a founder Director of Sharenergy and lives and works in Shrewsbury. A lifelong environmentalist and former CTO of an internet startup, he has worked setting up renewable energy co-operatives for the last 10 years, notably with Goldenfuels in Oxfordshire and Energy4All in the West Midlands, before co-founding Sharenergy in 2011. He is also Company Secretary of Neen Sollars Community Hydro. Jon has been involved in LHC from the beginning. He provides co-operatives expertise to the project.

#### 6.3. Current and intended shareholdings of Directors

The directors are intending to take up shares to the value of £27,000 in aggregate in this share offer and the pioneer share offer

#### 6.4. Disclosure

None of the directors of Ludlow Hydro Co-operative has, for at least the past five years, received any convictions (for any fraudulent offence or otherwise), or been involved in any bankruptcies, receiverships or liquidations, or received any public recrimination or sanction by a statutory or regulatory authority or designated professional body, or been disqualified from any function by any court.

#### 6.5. Conflicts of Interests

**Angus Marshall** is landowner at Ludford Mill and will receive rent in that capacity when the installation is running and the right to a supply of electricity at a price below that of electricity from the grid.

Jon Halle is a director of Sharenergy Co-operative which provides development services to LHC.

**Tony Cant** is the owner (together with his wife) of The Old Bell House and of the weir, which is leased to the Teme Weirs Trust. They also own the drive which will be used to access the site, and will receive an annual payment for easement rights and a right to a supply of electricity at a cost below that of electricity from the grid.

### 6.6. Remuneration

The role of a Director in LHC is voluntary and no remuneration is paid by the LHC to the Directors for this role.

When the Hydro Installation is generating electricity each Director will be entitled to claim fees and/or expenses not exceeding £50 p.a. in addition to travel expenses. Directors' share applications will be met in full, but there are no pension schemes, share option schemes, and except for the reimbursement of expenses there are no other benefits for Directors of Ludlow Hydro Co-operative.

### 6.7. Board Practices

Directors and the Company Secretary serve in accordance with the Rules. They have no service contracts. Ludlow Hydro Co-operative will have no employees and the business is not dependent on key individuals. Day-to-day operations will be managed by LHC under the supervision of the Board. The Board will bear ultimate responsibility to the Members.

As a Registered Society, Ludlow Hydro Co-operative complies with statutory requirements and the regulation of the Financial Conduct Authority. As the Shares will not be listed, Ludlow Hydro Co-operative is not obliged to comply with The Combined Code on Corporate Governance.

#### Ludlow Hydro Co-operative strives to promote Co-operative Values and Principles:

- Self help and self-responsibility
- Democracy and equality
- Honesty and openness
- Social responsibility
- Autonomy and independence
- Member economic participation
- Opportunities for education
- Concern for community
- Co-operation among Co-operatives

### 6.8. Development handover

Sharenergy will be reimbursed for development costs incurred before and in relation to the Offer. Following this reimbursement, Sharenergy will relinquish all rights in the project to the fully independent Ludlow Hydro Co-operative.

Sharenergy will provide an ongoing administration service for LHC for an annual fee which will initially be £2,500.

#### 6.9. Accounts

Ludlow Hydro Co-operative was incorporated on 30th May 2013. Its financial year-end is 31st December. At the time of commencing this share issue, the only shares that have been issued are 3 shares at par to the founding directors, and 36,000 shares through the pioneer share offer. First year accounts were prepared for LHC for the 2014 AGM and are available on request.

#### 6.10. Dividend Policy

Members' Shares will attract a payment of interest annually in arrears and there is currently no policy to pay dividends (see glossary for the definition of dividends). Interest rates will vary according to financial performance.

### 6.11. Legal Proceedings

There have been no governmental, legal or arbitration proceedings relating to the Project or Ludlow Hydro Co-operative and none is pending or threatened which could have a significant effect on the financial position or profitability of LHC.

#### 6.12. Rules of the Co-operative

Registered Societies, such as Ludlow Hydro Co-operative, are governed by Rules approved by the Financial Conduct Authority (not by Memorandum and Articles of Association). A copy of the Rules is available from LHC (see contact details on back page of this Offer).

### 6.13. Further information

Other documents mentioned in this Offer are available from the LHC (see contact details on back page of this Offer).

General information sourced from third parties in this Offer Document has been accurately reproduced and as far as the Directors are aware and are able to ascertain from information published by that third party, no facts have been omitted which would render the reproduced information inaccurate or misleading.

# 7. SHARE OFFER

### 7.1. Reasons for the Offer and use of proceeds

This Offer is being made so that:

- The Hydro installation that has been granted planning permission for installation on Ludford weir can be constructed and commissioned .
- Members may benefit from Ludlow Hydro Co-operative owning the Hydro Installation.
- Members may be as far as possible drawn from the local community.
- Ludlow Hydro Co-operative and its Members are able to make a contribution to promoting renewable energy and reducing the negative effects of reliance on non-renewable energy sources and their effects on Climate Change.

#### 7.2. Offer Shares

365,000 ordinary Shares of £1 are offered at par and payable in full on acceptance of an application on the Terms and Conditions of this Offer Document. The Shares, which will not be traded on any stock exchange, have been created under the Cooperative and Community Benefit Society Act 2014

Successful applicants will receive share certificates and their details and holdings will be recorded in a share register to be kept by Sharenergy, on behalf of LHC, at The Pump House, Coton Hill, Shrewsbury, SY1 2DP, or any successor business address. Each person or organisation issued with Shares becomes a Member of LHC, with membership rights defined in the Rules. The principal rights are:

- One vote per holding on resolutions of the Members, including in relation to the appointment of Directors.
- The right to receive a proportionate annual interest payment as a return on the investment in shares (subject to available profits).
- The right to the return of the original investment at the end of the life of the Hydro Installation (subject to available surplus assets and any new business of LHC).
- As a Member, eligibility for election to the Board.

### 7.3. Interest payment/dividend

Interest will be paid on the balance of each Members' account at rates which will reflect annual financial performance. Each Share also carries a right in theory to an equal part in any declared dividend, although it is not the intention to declare dividends in addition to annual interest payments. The date on which entitlement to interest (or any dividend) arises will be announced each year. It is envisaged that any interest (or dividend) unclaimed for a period of 7 years will be cancelled for the benefit of all Members. There are no restrictions on interest and dividend payments and no special procedures have been established for non-resident holders.

### 7.4. Voting rights

Each Member has one vote, regardless of the number of Shares held. There are no pre-emption rights.

#### 7.5. Rights to share in profits/surpluses

All Members are entitled to share in interest (and dividends) declared out of annual profits, such payments to be divided equally between the total Shares in issue. This means that a Member with 10,000 shares has a single vote but will receive interest or dividends on all 10,000 shares.

### 7.6. Redemption provisions

Redemption of Shares may take place in accordance with the Rules. Members do not have the right to withdraw share capital but the Board of LHC has the power to permit Shares in LHC to be withdrawn by agreement between the Board and the member. Members can apply for withdrawal of share capital after the third year of operation. In addition the Board has the power to return capital to members at its discretion.

### 7.7. Taxation

Interest payments made to Members will be subject to United Kingdom taxation. It is expected that payments will be made gross and investors will be responsible for declaring this income on their tax returns.

#### 7.8. Provisions on death of a Member

In accordance with the Society's Rules, on the death of a member of the Society, their personal representative can apply for withdrawal of the share capital. Return of share capital under this provision will be prioritised by the Board over any other return of member's capital.

### 8. TERMS AND CONDITIONS

#### 8.1. Eligibility

The Offer is open to anyone, over 16 years of age, who meets the membership requirements of the Rules.

#### 8.2. Minimum and maximum holdings

The minimum number of Shares which can be applied for is 100 and the maximum (save for other Registered Societies) is that provided in law (currently 100,000).

#### 8.3. Application procedure

- Anyone interested in responding to this Offer is strongly advised to take appropriate independent financial and other advice.
- Shares shall be applied for using the Application Form following the Guidance Notes.
- By delivering an Application Form an Applicant offers to subscribe, on the Terms and Conditions contained in this Offer Document, for the number of Shares specified, or such lesser number as may be allocated.
- An Applicant who receives Shares agrees to automatic membership of Ludlow Hydro Co-operative and to be bound by its Rules.
- Once an application has been made it cannot be withdrawn.
- Multiple subscriptions will be admitted providing that they do not result in a Member (other than a Registered Society) holding more than the statutory limit of 100,000 Shares.

#### 8.4. The Offer timetable

The offer will remain open until the closing date of 31st March 2015. If this time limit is reached without the full target being reached, the Directors will consider whether to extend the share offer or whether to look for a loan to cover the balance.

Subject to the share offer being successful, the Board expects the following timetable to apply.

March 31st 2015 (or earlier if target reached)		
	Offer results published	
	Monies returned on unsuccessful or scaled-down applications	
May 5th 2015	Share certificates posted	
July 2015	Second Annual General Meeting. Board Elections	

### 8.5. Consequences if the Offer is unsuccessful

If the share target is not reached by the share offer close date, the directors will choose whether to extend the share offer or whether to seek a loan for the balance. If the total sum is not obtained in either of these methods, the Board will not proceed with the development of the Hydro Installation. Application Monies will be returned in full to the Applicants as soon as is practical. None of Ludlow Hydro Co-operative, its Directors or advisors will be responsible for loss of interest or any other benefit suffered by Applicants during the period the monies are held by LHC.

### 8.6. Commitments and confirmations by Applicants

Each Applicant, on submitting an Application Form, confirms that he/she/it:

- Meets the eligibility criteria.
- Is not (unless a Registered Society) making multiple applications for a total of more than 100,000 Shares.
- Is not relying on any information or representation in relation to the Offer Shares, Ludlow Hydro Co-operative, or the Hydro Installation which is not included in this Offer Document.
- Shall provide all additional information and documentation requested by Ludlow Hydro Co-operative in connection with their application; including in connection with taxation, money laundering or other regulations.

Any person signing an Application Form on behalf of another person undertakes that they are authorised to do so.

### 8.7. Procedures on receipt by Ludlow Hydro Co-operative of Applications

- Offer cheques/bankers' drafts will be presented on receipt and may be rejected if they do not clear on first presentation.
- Surplus Application Monies may be retained pending clearance of successful Applicants' cheques.
- Applications may be rejected in whole, or in part, or be scaled down, without reasons being given.
- Application Monies in respect of any rejected or scaled-down Applications shall be returned by crossed cheque or bank transfer, no later than one month after the end of the Offer Period.
- No interest is payable on submitted Application Monies which become returnable.
- Applications on incomplete or inaccurate Application Forms may be accepted as if complete and accurate.
- LHC reserves the right not to enter into correspondence with Applicants pending the issue of share certificates or the return of Application Monies.
- Results of the Offer will be published to members within one month after the Offer has been closed.
- Share certificates will be issued to successful Applicants before 5th April.

### 8.8. Pricing, trading and dealing arrangements

The Board has resolved to offer Shares at their par value of  $\pounds1$ . LHC intends paying interest on Members' shares each year from the time when electricity generation begins, such that retained profits will not accumulate. The underlying asset value of each Share is likely to remain at  $\pounds1$  and any Share redemption will take place at par.

#### 8.9. Offer Costs

Offer costs will be met by Sharenergy and will be repayable by LHC on completion of a fully subscribed share issue, for the purpose of reinvesting in similar projects. This is included in the share capital being raised.

#### 8.10. Governing Law

This Offer is one of a series throughout the UK being managed by the English co-operative Sharenergy and so to minimise costs this Offer Document and the Terms and Conditions of the Offer are subject to English law.

## 9. GUIDANCE NOTES

#### 9.1. Applying for Shares

The Offer is open to individuals, Registered Societies and other organisations. It is only possible to purchase Shares in Ludlow Hydro Co operative by completing the Application Form.

Before completing the Application Form you should consider taking appropriate financial and other advice, particularly in relation to any aspect of the Offer Document which is not clear to you. Your attention is particularly drawn to:

- The Risk Factors section which describes risks relating to an investment in the Offer Shares.
- Terms and Conditions of the Offer because by completing the Application Form you will make an irrevocable offer which may be accepted by Ludlow Hydro Co operative.
- The Rules of Ludlow Hydro Co operative because in buying Offer Shares you will become a Member of LHC and will be bound by those Rules.

#### 9.2. Amount to invest

The price of each share is £1. The minimum number is 100. The maximum is 100,000 (except in the case of other Registered Societies where there is no upper limit on the allowed shareholding). Annual interest payments will be based on the number of Shares you hold, but you will only have one vote, regardless of the number of Shares you hold.

#### 9.3. Personal details

You may apply as an individual, or as long as you are properly authorised, on behalf of a Registered Society or other organisation.

For legal reasons persons under 16 years of age cannot become Members.

#### 9.4. Priority Application

All applications received by 31st March will be processed and shares issued before 5th April 2015 unless the offer is oversubscribed by 31st March in which case all shares with SEIS eligibility will be allocated on first come first served basis and the remaining applications allocated with priority given to applicants that live nearest to the site.

#### 9.5. Declaration

In signing the Application Form, as an individual, you are personally making an irrevocable offer to enter into a contract with Ludlow Hydro Co-operative. If you are signing on behalf of an organisation or on behalf of another individual you are personally representing that this is in accordance with due explicit authorisation.

Non-UK residents must take responsibility for ensuring that there are no laws or regulations in their own country that would prevent them from investing in or receiving income from a UK co-operative. Under Money Laundering Regulations, you may be required to produce satisfactory evidence of your identity and it is a condition of the Offer that you do so as requested. You should note that if the Offer is unsuccessful, it will become necessary to return money to investors.

#### 9.6. Payment

Please attach a cheque or banker's draft, drawn on a UK bank or building society, or make a bank transfer, for the exact amount shown in the box under 'Amount to invest'. If there is a discrepancy between the two, or if the cheque is not honoured on presentation, your application may be rejected without further communication.

# **10. GLOSSARY**

Abstraction The word used by the Environment Agency to refer to water being removed from a watercourse.

Applicant An applicant for Offer Shares through submission of an Application Form.

**Application Form** The form in this Offer Document which must be completed to be returned in accordance with the Terms and Conditions of this Offer and the Guidance Notes.

Application Monies The total gross sum realised by this Offer.

Board The Board of Directors of Ludlow Hydro Co-operative.

**Climate Change** The phrase widely used to describe changing weather patterns as a direct result of global warming, including an increase in the incidence and intensity of storms and droughts.

CO<sub>2</sub> Carbon dioxide, a natural gas emitted during the burning of fossil fuels and regarded as the main cause of global warming.

Directors The directors of Ludlow Hydro Co operative.

**Dividend** (in a co-operative society) is a discretionary allocation of profit paid to members, based on the members' transactions with the co-operative and not on the amount of capital invested.

FIT (Feed in Tariff) Incentive for micro generation up to 5MW introduced by HM Government on 1st April 2010 under powers from the Energy Act 2008.

kW (kilowatt) A unit that measures power and is equal to 1 thousand watts.

**kWh (kilowatt hour)** A unit that measures energy and is equal to the energy that can provide the power of 1 kW for the period of one hour.

Ludlow Hydro Co-operative Ludlow Hydro Co-operative Ltd. Principal Office: Ludford Mill, Ludford, Ludlow, SY8 1PP (Registered Society number 32086R).

Ludlow Hydro Co-operative Shares Ordinary shares of £1 in Ludlow Hydro Co-operative.

Offer The Offer of Shares in Ludlow Hydro Co operative contained in this Offer Document.

Offer Costs The expenses incurred by or on behalf of Ludlow Hydro Co operative in issuing this Offer Document.

**Offer Period** The period during which the Offer will remain open (including any extension) as set out in the Offer timetable in this document.

**Offer Shares** New shares of £1 in Ludlow Hydro Co operative, offered at par on the Terms and Conditions and payable in full on application.

PPA Power Purchase Agreement for the sale of electricity.

Project The proposed ownership and operation by Ludlow Hydro Co operative of a Hydro Installation at Ludford Mill, Ludlow.

Projections The financial projections for Ludlow Hydro Co operative set out in this document.

**Rules** The Rules of Ludlow Hydro Co operative, available on demand by using the contact details set out on the back of this Offer document.

**Sharenergy** Sharenergy Co-operative Limited. A Registered Society(registered no. 31237R), registered at The Pump House, Coton Hill, Shrewsbury, SY1 2DP.

Site The location of the proposed Hydro Installation.

Terms and Conditions The terms and conditions of the Offer contained in and constituted by this Offer Document.

The Hydro Installation in this Offer Document refers to the Hydro turbine, civil works and ancillary equipment of the Project.

Ludlow Hydro Co-operative Limited is a Registered Society registered with the Financial Conduct Authority (reg no. 32086R )

For enquiries relating to this share offer contact: Sharenergy, The Pump House, Coton Hill, Shrewsbury, SY1 2DP 01743 277119

The project has been developed in association with



25th February 2015 Printed on recycled paper

More information can be found on the website www.ludlowhydro.org.uk for more information email info@ludlowhydro.org.uk