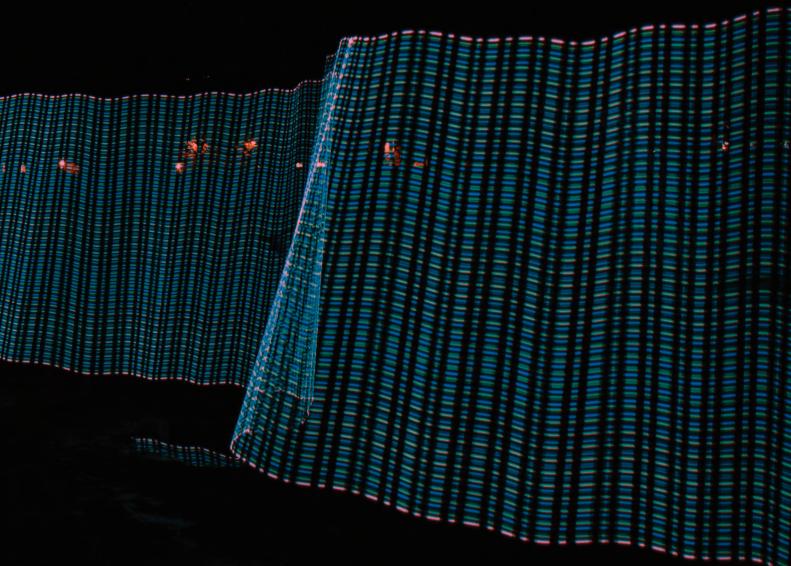
# INVESTING IN ANEW GENERATION



Share Offer Document April 2016



Target: Sandford Hydro £1.2m Target: Solar PV 2016 £2.3m

Deadline: 11 July 2016

www.lowcarbonhub.org/invest

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#### THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR CAREFUL ATTENTION

This document sets out in detail an invitation to subscribe for shares in the Low Carbon Hub IPS Ltd. The Low Carbon Hub IPS Ltd is a social enterprise using a community benefit society model. It generates income by developing and selling renewable electricity. It aims to make a surplus that will be reinvested by the Low Carbon Hub IPS Ltd and Low Carbon Hul CIC in projects that lower carbon emissions across Oxfordshire by helping businesses, the public sector and communities to develop renewable energy projects and reduce energy demand.

Low Carbon Hub IPS Ltd and Low Carbon Hub CIC work together as the Low Carbon Hub (see page 23). It should be read in its entirety. If you are in any doubt as to the action you should take, you are recommended to seek your own independent financial advice immediately from your stockbroker bank manager, solicitor, accountant or other independent financial adviser duly authorised under the Financial Services and Markets Act 2000 (FSMA), or from another appropriately authorised independent financial adviser.

The content of this document has been approved by an authorised person within the meaning of FSMA. Reliance on this document for the purposes of engaging in investment activity may expose an individual to a significant risk of losing all the money they have invested.

In any event, investors should appreciate that any investment they make is an acknowledgement of their support for the development of renewable energy and, accordingly, a subscription for shares in Low Carbon Hub Ltd should primarily be regarded as an investment for social and environmental purposes rather than one which will produce a significant financial return. It should also be noted that members of Community Benefit Societies do not have access to the Financial Ombudsman Service (FOS) or the Financial Services Compensation Scheme (FSCS).

Nothing in this document constitutes investment, tax, legal or other advice by Low Carbon Hub IPS Ltd, its directors or advisers. 18 April 2016

# INVESTING IN A NEW GENERATION

# Your invitation to invest in a renewable energy future for Oxfordshire and the UK

Share Offer Document April 2016

#### Dear Investor

This share offer marks a coming of age for the Low Carbon Hub. We will be celebrating our 5th birthday this year; with the projects included in this share offer we will be increasing our asset base by just under 400% and guaranteeing that we can have real impact over the next 20 years through the deployment of over £3.5m of community benefit (nominal value).

We have set out our vision for the use of this funding in our companion publication, *The Low Carbon Hub Community Energy Manifesto*. We hope you read it alongside this offer document and are excited as we are by the opportunities we have for action in Oxfordshire and thought leadership for the whole UK.

Given the changes in Government policy over the last year, we at the Hub have had to be very light on our feet and work incredibly hard to secure the pipeline we are presenting to you in this offer. It is a testament to the quality of our Board and Executive Team that we have succeeded so well.

With recent news about the warmest February on record, and yet 9,000 people dying because they can't afford to heat their homes in the UK, I hope you will agree with us that it is ever more important that we engage as many people as possible in supporting action to address these problems whilst building a secure, safe and clean energy system that we can all feel good about.

Please stand up and be counted by investing in us, becoming a Member of our community benefit society and so having a voice for the next 20 years in shaping how we go about delivering our vision for community energy.

Thank you Barbara Hammond MBE Chief Executive, Low Carbon Hub IPS



"Low Carbon Hub in Oxford is one of the most important community energy organisations in the UK. It's poised to start a real revolution in the way we develop and use our energy"

#### **JONATHON PORRITT CBE**

Co-Founder, Forum for the Future



#### The Offer

SANDFORD HYDRO 440kW project on the Thames
18 SOLAR PV PROJECTS on schools and businesses in Oxfordshire
£1 withdrawable shares in the Low Carbon Hub IPS
One member one vote
20-year return forecast as 5%+1. Interest calculated annually as RPI +3%
Total capital repayment over 20 years
Invest between £250 and £100,000
Offer opens 18 April 2016
Offer closes 11 July 2016
APPLY ONLINE: lowcarbonhub.org/invest

<sup>1.</sup> This gives a forecast overall return (IRR) of 5% based on the Office for Budget Responsibility 5-year RPI forecast published in March 2016 and a 20-year average of 2.86% RPI.

# OUR MISSION TO POWER OXFORDSHIRE WITH RENEWABLE ENERGY

# LOW CARBON HUB IS A SOCIAL ENTERPRISE WORKING TO CHANGE OXFORDSHIRE'S ENERGY SYSTEM.

We believe renewable energy technologies will make a much better energy system possible, for Oxfordshire and the rest of the UK: a clean and abundant energy system that, when run through social enterprises, has people at its heart; a localised energy system based on a combination of community-owned renewable energy supply (Powering Up) and very low energy demand (Powering Down). We at Low Carbon Hub think the UK should run as fast as possible towards this opportunity, and we would like to work with you to make it happen.

Despite the challenging new policy environment for renewables in the UK, we continue to develop our social enterprise approach to scaling up renewable energy in



Oxfordshire. We set out in our Manifesto what community energy means for us and why we think it is a fundamentally important part of our national energy transition.

Our work over the last three years demonstrates that the UK's energy resources can be developed democratically, and for the benefit of a much wider range of stakeholders, by building new energy partnerships between social developers like us, local councils, communities and businesses.

Using our social enterprise approach to energy, we re-invest the surplus from our energy projects into our community benefit activities, and will also generate financial returns for the investors who help make our projects happen.<sup>2</sup>

We use the community benefit funding in two ways:

#### Community Grant Fund:

Up to 25% of our available community benefit funding is offered as grants to our local Community Shareholders to support their low carbon energy activities.

#### Local Energy Innovation Programme:

Our main funding stream is used to deliver support services to communities who are developing their own projects and to provide seed funding to develop innovative models and services.

Current priorities for our Local Energy Innovation Programme:

- Encouraging domestic energy efficiency, with a focus on tackling fuel poverty
- Supporting the development and financing of grassroots renewables
- Trialling the potential for local energy balancing
- Piloting approaches to biomass and renewable heat networks
- Unlocking grid constraints

### We have also identified the following opportunities for innovation:

- Opportunities around microgrids
- LED lighting energy efficiency business model
- Developing a county-wide energy infrastructure strategy
- Developing energy supply company models

If we want a renewable energy future in the UK – and specifically one that is developed for the benefit of local economies and communities – we can have one, but we will need to stand up for it.

You can choose a renewable energy future by investing in this share offer.

Download a copy of our manifesto from lowcarbonhub.org/manifesto or call us and we will post you a copy.

2. Our first return to Solar 2014 investors will be calculated against the financial outturn for the current financial year.



#### The opportunity

You can choose which of these offers to invest in. Your investment will be held in a separate share class and your return will be paid depending on the performance of your particular projects, either the hydro or the solar. The returns are modelled to give the same returns to all shareholders who invest under this offer if performance on all the projects is as predicted.

**SANDFORD HYDRO** We are raising £1.2m of shareholder investment in a project costing £3.2m. The rest of the £2m funding is being loaned by the Charity Bank<sup>3</sup>.

# E1.2 MILLION

**SOLAR PV ON SCHOOLS AND BUSINESSES** We are raising up to £2.3m of shareholder investment in a pipeline of rooftop solar PV projects on schools and businesses.

# E2.3 MILLON



**BURE PARK SCHOOL** Celebrates the installation of its 60kWp of solar PV installed with the Low Carbon Hub following our last Share Offer



**OXFORD BUS COMPANY** Our 2014 Share Offer funded the Oxford Bus Company's solar project generating 226,000kWh of electricity to date

#### INVESTING FOR THE NEXT GENERATION

#### A LONG TERM VISION

This is a long-term offer where we want investors to work with us as members of our Society helping us to deliver our vision for community energy as set out in our *Community Energy Manifesto*. We do recognise, however, that our older investors will want to understand what their choices are if they want to invest for the next generation.

#### These are three:

- 1. You can invest for children or grandchildren over the age of 16. They fill in the form in their name and you pay us the money for the investment.
- 2. You can invest for children or grandchildren under the age of 16. You fill in the form in your name and then transfer the shares to them when they reach 16.
- 3. You buy the shares in your name but leave them to your children or grandchildren in your will. The shares become part of your estate.

#### AND WHAT ABOUT INHERITANCE TAX NOW THAT THE EIS TAX RELIEF IS NO LONGER AVAILABLE?

If you give the shares or the money to buy them, then you need to live for 7 years after making the gift and then the investment is free of Inheritance Tax.

Low Carbon Hub shares also qualify (under current rules) for Business Relief for Inheritance Tax because they are unlisted shares. This means that you only need to live for 2 years after you buy the shares for them to qualify for 100% Inheritance Tax relief. You can also leave the shares in your will, and they will qualify for the relief.

#### AND CAN I INCLUDE THE SHARES IN MY PENSION PLANNING?

Yes, you can include unlisted shares in a Self-invested Pension Plan.

NB: Please take advice from your financial advisor on any of this information before you take action.

#### The benefits in numbers

Projected financial return to you is 5%. Annual interest payment is calculated as retail price index (RPI) plus 3%, with a projected internal rate of return (IRR) of 5%.

The amount of investment in Sandford Hydro.

Amount of investment in our pipeline of Solar PV Projects.

Megawatts total installed capacity

440kW of installed hydro capacity at Sandford Hydro

MW of solar on 27 schools and 7 businesses throughout Oxfordshire

MWh of clean green electricity generated each year

The 19 renewable energy projects funded by this share offer include a hydro project at Sandford Lock and 18 solar PV projects at schools and businesses across Oxfordshire. Together with our existing projects the combined impacts are shown across these two pages.

35

Renewable energy projects across Oxfordshire 2344

Tonnes of CO<sub>2</sub> saved every year

1321

The number of homes that could be powered by the clean green electricity the projects will generate, every year

31

Double decker buses of CO<sub>2</sub> every day. The equivalent of 161 party balloons of CO<sub>2</sub> every minute

£3.5M

Returns to the community in community benefit over the project lifetime (nominal value) 28%

Average discount on electricity bills for partner schools and businesses

17K

School pupils benefitting from renewable energy in Oxfordshire

4.5%

Employees of Oxfordshire businesses benefitting from renewable energy

#### Our new projects

The purpose of this share offer is to raise funds for our next set of community-owned renewable projects - Sandford Hydro and 18 solar PV installations on schools and businesses in Oxfordshire.

#### **SOLAR PV PROJECTS: TARGET EQUITY RAISE 62.3M**

School/Business
Orchard Fields Community School, Banbury
Middle Barton Primary School, Chipping Norton
Botley School, Oxford
Nettlebed Community School, Henley-on-Thames
Chilton Primary School, Chilton, Didcot
Langtree School, Woodcote, Reading

kW installed	CAPEX
99.84	£87,856
10.40	£12,865
42.64	£49,969
29.90	£30,371
29.90	£31,238
103.68	£99.152

£465,000 of our solar PV pipeline has already been installed using short-term construction finance from Oxford City Council. We are looking to replace that loan with share capital through this offer.

School/Business	
Didcot Girls School, Didcot	
Endeavour Academy, Oxford	
Great Marlow School, Marlow	
King Alfred's Academy, Wantage	
Long Furlong Primary School, Abingdon	
Prodrive, Banbury	
Rose Hill Primary School, Oxford	
Sir William Ramsay School, High Wycombe	
The King's School, Witney	
Windmill Primary School, Headington, Oxford	
Wood Green School, Witney	
UTC Aerospace, Banbury	

kW installed	CAPEX		
49.92	£52,248		
50.00	£49,859		
49.92	£46,371		
36.50	£37,304		
29.64	£36,000		
635.96	£515,172		
28.08	£34,549		
49.92	£49,900		
15.08	£18,565		
26.00	£29,261		
50.00	£46,000		
745.68	£579,930		

£1.835m of our solar PV pipeline is to be installed on business and school rooftops during the summer 2016. We are looking to finance these projects directly with share capital raised through this offer.

Solar PV: Project costs	£
Capital cost	£1,906,680
Contingency	£90,331
Project management and financing costs	£241,862
Contribution to working capital	£0
Interest during construction: £45,730	£45,730
Total cost	£2,284,603

Solar PV Project pipeline costs

#### SANDFORD HYDRO: TARGET EQUITY RAISE £1.2M

Sandford Hydro Equity	£
Equity released by securing 5-year short-term debt funding against existing Low Carbon Hub solar projects. This funding is supplied by the Resonance Community Shares Underwriting Fund and the Finance South East Community Generation Fund	£800,000
Equity from the Low Carbon Hub IPS and CIC	£200,000
Equity raised from existing shareholders through a private placement in February 2016	£200,000
Sandford Hydro: Project costs	£
Capital cost	£2,680,000
Contingency	£225,000
Project management and financing costs	£160,000
Contribution to working capital	2100,000
50% of estimated year one operation and maintenance costs and rent guarantee fund	£53,000

The Sandford Hydro project will reach financial close based on successful conclusion of legal, technical and documentary due diligence on a £2m loan from the Charity Bank, and £1.2m of equity provided. The equity is made up of:

- -£800k equity released by securing 5-year short-term debt funding against existing Low Carbon Hub solar projects. This funding is supplied by the Resonance Community Shares Underwriting Fund and the Finance South East Community Generation Fund
- -£200k equity from the Low Carbon Hub IPS and CIC
- -£200k equity raised from existing shareholders through a private placement in February 2016

#### **NEXT STEPS:**

Total cost

We expect all of these projects to proceed where we have signed Heads of Terms or letters of engagement with the building owners and have done the technical due diligence on them<sup>4</sup>. Pre-accreditation (>50kW) or pre-registration(<50kW) applications for the Feed-in Tariff were submitted by the deadline date of 30 September 2015 for all the solar PV projects listed, except UTC Aerospace<sup>5</sup>. We are working

with Ofgem to complete the FiT registration process on all sites. If projects do not proceed for any reason, we will not replace them with new projects and will return any share capital raised in excess of the sum required. Should any capital be returned in this way, we will go by date of application, i.e. those who apply latest will not have their application approved or will have their money returned to them.

£3,200,000

#### **SEE THE PROJECTS:**

To learn more about the projects and invest now visit: lowcarbonhub.org/invest

- We are yet to receive Heads of Terms for Didcot Girls School, Great Marlow School, The King's School and UTC Aerospace.
- 5. The UTC Aerospace project is the first one we are doing following the recent major changes to the FiT system. The project is viable because UTC is willing to pay more for its electricity than the retail price it is currently paying.

#### Our track record

Our first two share offers raised £1.85m, enabling us to develop 1.2MW of solar PV projects on 12 schools and 4 businesses and fund the pre-development costs for Sandford Hydro. The combined impact of these projects each year<sup>6</sup> is:

Tonnes CO2 saved & 1,016 MWh renewable energy generated

56K

saved on energy bills for partners who host the installations, and

in community-benefit funds generated

Our projects are generating energy ahead of expectation, and we have so far donated £100,000 community benefit in total to fund the following projects: Osney Lock Hydro, Southill Solar in Charlbury, Watchfield Sports Pavilion, St. Barnabas School and Goring Hydro.

We want to keep going until our rooftops, woodlands and rivers are the power stations of Oxfordshire, local power is in the hands of local people, and communities reap the benefits of a clean energy system.



OSNEY LOCK HYDRO, the first community owned hydro scheme to be built on the River Thames. The Hub helped provide funding for legal and share



MAP All our projects (including pipeline projects) across Oxfordshire



NORBAR TORQUE TOOLS' massive factory roof is now also a clean 'power station' for Oxfordshire - and the UK's largest community-owned rooftop solar project.



 $\begin{tabular}{ll} \textbf{OXFORD BUS COMPANY} is our first business project, our biggest champion and an exemplar for other local businesses. \\ \end{tabular}$ 



**THE WARRINER SCHOOL** is our largest solar PV school installation, generating enough clean energy to power the equivalent of 25 local homes.



 $\textbf{LARKRISE PRIMARY SCHOOL}\ teacher\ Mr\ Finch\ has\ been\ showing\ his\ class\ the\ solar\ generation\ graphs\ -\ particularly\ interesting\ around\ the\ solar\ eclipse!$ 



**WHEATLEY PARK SCHOOL** solar project is a great example of renewable energy giving back to the local community. It was chosen as a national Friends of the Earth case study.



**THOMAS READE PRIMARY SCHOOL** has brought solar learning into classrooms. The children take weekly solar figures and read them out in assembly.

#### Our team

The Board is run as a Joint Board of the two Low Carbon Hub social enterprises: the Low Carbon Hub IPS Ltd which is the investment vehicle for our capital projects and the Low Carbon Hub CIC which holds the staff team, develops the projects and works with communities to develop new approaches to community energy. We have two Board members who act as independents to vote on issues where there is a conflict of interest between the two organisations: these are Steve Drummond for the Low Carbon Hub IPS Ltd and Sue Halliwell for the Low Carbon Hub CIC.

#### **EXECUTIVE DIRECTORS**

#### 1. Barbara Hammond CEO, Director Low Carbon Hub IPS

Barbara's 25-year career in sustainable development and energy, including stints in local government, central government, the private sector and academe, gives her a very unusual ability to network across all of those sectors to build 'coalitions of the willing' to make projects happen. During her time in central Government she was responsible for the UK's £350m renewable energy programme and the delivery of the UK's first offshore wind farm, large-scale PV field trials, biomass generators and wave and tidal research programme. She is a pioneer in developing local, collective responses to climate change being founder and Director of Low Carbon Oxford, a city-wide partnership of leading corporations committed to reducing carbon emissions, and founder and director of West Oxford Community Renewables Ltd and Osney Lock Hydro Ltd which together have raised around £1.5m for a range of community-owned solar and hydro projects. She advises

UK Government as part of DECC's Community Energy Contact Group and is Chair of its Community Hydro Working Group. She was awarded an MBE in 2015 for her services to the development of community energy.

#### 2. Adriano Figueiredo Operations Director

A Civil Engineer by training and highly experienced manager, Adriano has held senior positions in commercial businesses in the UK, Continental Europe and Latin America in sectors as diverse as education, industrial property development and heavy construction. An entrepreneur at heart, he has set up, developed and managed subsidiaries of UK businesses in Spain, Mexico and Brazil. He used this experience to co-found Oxford North Community Renewables (or ONCORE) to develop community renewable projects locally. As the Operations Director for the Low Carbon Hub, Adriano has a key role in defining the financial and operational strategies for the organisation, including evaluation of potential projects, the development process, project finance and on-going operation and management.

#### NON-EXECUTIVE DIRECTORS

#### 3. Sam Clarke Chairman

Sam is currently Chair of the Soil Association Standards Board. He is a founder and chair of both Low Carbon Oxford North and Oxford North Community Renewables (or ONCoRe). Previously he founded and chaired the Climate Coalition, was Chairman of New Economics Foundation, Friends of the Earth and the Ethical Property Company plc. He is a trustee of Charity Mentors.

#### 4. Luke Marion

Treasurer

Luke is a Chartered Accountant and the Finance and Commercial Director of the Oxford Bus Company and its sister companies Thames Travel and Carousel Buses. In 2013, he helped Oxford Bus Company become the first local business to partner with the Hub, which led to a 140kW PV array being installed on the company's depot premises in Cowley. Luke started his career with Ernst & Young before joining Reckitt Benckiser, where he spent 7 years in various commercial finance roles in the UK. He joined the Low Carbon Hub as nonexecutive treasurer early in 2015.

#### 5. Steve Drummond

Investment Committee Chair and IPS independent

Steve has extensive experience in the energy sector. Starting as an engineer and then moving into finance, he has spent nearly 30 years working in nuclear, conventional and renewable energy power generation. Roles include power station design, operations and development in the Central Electricity Generating Board and its successors, Partner of Corporate Finance at PwC, and emissions trading, finance and global project development at Cantor Fitzgerald. Steve is now MD of Bainton Capital Partners Ltd, a boutique advisory firm that helps develop and finance renewable energy power projects around the world. Back in Oxford, he was one of the founding directors of Oxford North Community Renewables (or ONCORE) and developed the structure of the enterprise and the financial model to install community renewable projects in North Oxford.

#### 6. Tom Hoines

Tom heads the Commercial Renewables Department within Opus Energy, the sixth largest business supplier in the UK, who purchase power from over 2,000 renewable generators across the country. Tom has worked on the supply side of the energy industry for 6 years, first with Cooperative Energy before moving to Opus in 2014. Tom joined the Low Carbon Hub as a non-executive Director early in 2016.

#### 7. Tim Sadler

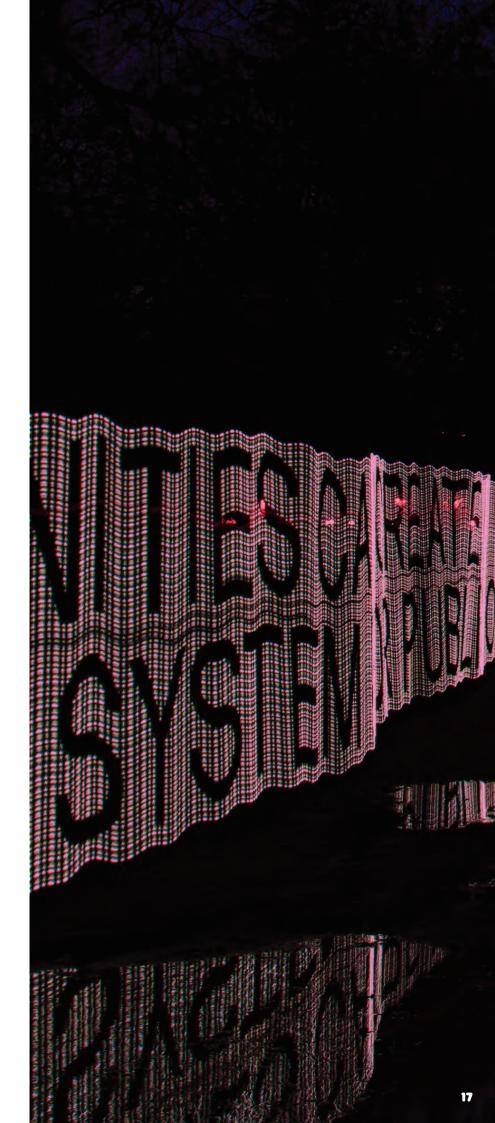
 $Oxford\ City\ Council$ 

Tim is the Executive Director for Community Services at the City Council where he leads a number of programmes including those in respect of environmental and social sustainability. With Sue Halliwell, Tim ensures that the Hub has good links into local government and has access to advice on local policy development.

#### 8. Sue Halliwell

Oxfordshire County Council and CIC independent

Sue is Service Manager for Strategic Infrastructure and Planning Resources at Oxfordshire County Council overseeing strategic and policy development for a number of areas including the environment, low carbon community engagement and green infrastructure. Previously Sue has been involved in developing energy and resource management strategies both locally and nationally and established a centre of excellence for local authorities sharing best practice in business resource efficiency.



#### Your investment

#### YOU ARE INVITED TO BUY SHARES IN THE LOW CARBON HIR.

Two new classes of shares are being issued, to separate the economics of the new projects from previous investments:

- 1) Sandford Hydro shares for the 440kW hydro power plant; and
- 2) Solar 2016 shares for up to £2.3m of new solar projects

Share offer timetable

- Offer period commences: Monday 18 April 2016
- Offer period ends:Friday 11 July 2016(unless closed early or extended)
- -Shares allotted by : Sunday *31 July 2016*

#### **SHARE TYPE**

Like our last share offer, all of the new shares issued will be 'withdrawable' shares that cannot be sold, traded or transferred between members, unlike the 'transferable' shares typical of a limited company, and only the Low Carbon Hub IPS can buy them back.

#### WHO CAN INVEST?

Individuals over the age of 16, couples, charities and other organisations may invest in this offer. You can also buy and hold shares on behalf of children.

#### **HOW MUCH CAN YOU INVEST?**

We are offering £1 shares, with a minimum investment of £250 and maximum investment of £100,000.

If you would like to invest more than £100,000 in the Low Carbon Hub, please contact the Low Carbon Hub on 01865 246099.

#### **HOW TO INVEST**

Ethex is managing the share administration of this share offer for us. It is a not-for-profit positive investment and savings platform that makes it easy to make money do good. You can either:

- for Sandford Hydro, invest online at ethex.org.uk/lchhydro
- for Solar 2016, invest online at *ethex*. org.uk/lchsolar

This will take you through to the Ethex website where each product of this share offer is listed. You can then invest online via a paperless process. If you have any problems or if you need help, then simply contact Ethex on: Ethex helpline: 01865 403 304 Ethex email: helpline@ethex.org.uk

If you would like to hold shares on behalf of children or nominate a person to whom you wish your shares to be transferred on your death, there is an additional form for this purpose that you can request from Ethex.

Unfortunately we do not have the facilities to accept this form on line.

Please complete a paper form and return to Ethex.

#### THE BENEFITS OF INVESTING

Investors become Members of the Low Carbon Hub. Members will have a say in the running of the organisation and are entitled to a share of the profits on capital invested (distributed in the form of interest payments) when there are sufficient funds available. We anticipate:

- An investor internal rate of return based on RPI+3% paid per annum until 2036. This means that shareholders can share any upside on the project if inflation goes up. On current average projections, this would give an investor IRR of 5% over the 20 year period.
- Interest payments from the end of the second year of operation.
- 100% repayment of your initial investment progressively over 20 years, starting in year 4.
- A vote: all Members are entitled to one vote, regardless of how many shares they hold.
- The right to attend general meetings, at which Board members are elected.

NB: Inheritance tax benefit: if a member dies more than 2 years after investing, the shares can qualify for 100% relief under Business Relief for Inheritance Tax because the shares are unlisted.

#### **RETURNING CAPITAL**

It is anticipated that capital will be gradually returned to investors from year 4, with a number of shares being bought back each year such that all shares are bought back by 2036. However, this is not guaranteed and the decision to return capital will be made by the Directors.

#### WITHDRAWING CAPITAL

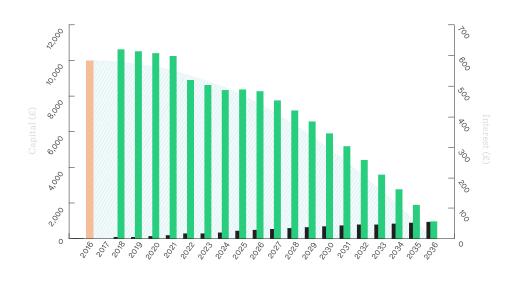
Although shares are technically withdrawable, this is entirely at the discretion of the Directors, who have decided that no monies can be withdrawn for the first three years. We strongly encourage investors to view their investment as being a 20-year commitment to the project – a one-off investment to generate long-term financial benefits to you, and sustained environmental and social benefit to the community.

#### HOW MIGHT MY INVESTMENT WORK IN PRACTICE?

In year 1, you will receive no interest. At the end of years 2 and 3 we anticipate paying interest to investors.

From year 4, we anticipate that these payments will become a combination of interest and capital payments. Under our financial model, your investment works a like a repayment mortgage in reverse. In the early years the money you receive from the Low Carbon Hub will mostly comprise interest, and a small amount of capital repayment. In later years, the proportion comprising interest reduces, and the proportion comprising capital repayment increases. By the end of the term, it is anticipated that in addition to interest payments, the annual payments will have paid back the original capital and you will no longer be a member of the Low Carbon Hub IPS. For Sandford Hydro, the plant has a life of at least 40 years. The lease with the Environment Agency is for 40 years and the life of the equipment is at least 50 years; we include in our cost projections all the expected maintenance and replacements required for the initial 20 years of operation. The final capital payment will be made at end of year 207 when new shareholders will be brought in for the next phase of operation of the plant.

#### **INVESTMENT PROFILE - SOLAR PV**



#### **INVESTMENT PROFILE - SANDFORD HYDRO**



7. A terminal value of £935,000 based on future net income is being assigned to the project at the end of 20 years of operation with total capital outstanding of £380,000 to be financed through a new equity raise, without the need for any significant investment in the plant itself.





# SWITCHED

#### Frequently Asked Questions: How the Low Carbon Hub IPS works

#### WHAT IS A COMMUNITY BENEFIT SOCIETY?

The Low Carbon Hub IPS Ltd operates like other companies in many ways, but is particularly focused on the benefits of the community, and is one of the legal forms typically used to raise community investment. The objects (or goals) set out in the governing documents of a community benefit society (the 'Rules') must be for the benefit of the community and any surplus on winding up must go to another organisation with similar aims rather than be distributed to shareholders. Shareholders receive interest payments on their investments (rather than dividends), and these are limited under legislation to what is necessary to attract and retain the investment. A copy of our Rules, setting out the governance of the Low Carbon Hub IPS in more detail, is available on our website.

#### HOW DOES ONE MEMBER ONE VOTE WORK?

In line with co-operative principles, an IPS operates on the principle of 'one shareholder, one vote', so all shareholders have equal say regardless of the size of their investment.

#### CAN I HOLD SHARES ON BEHALF OF CHILDREN?

Members must be at least 16 years of age. You have the option of holding shares on behalf of someone who is under 16. You can request a form for this purpose if you would like to choose this option. Following that person's sixteenth birthday they may become a Member of the society and those shares can be passed on to them. If you would like to hold shares on behalf of children or nominate a person to whom you wish your shares to be transferred on your death you can also request a form for this purpose. Unfortunately we do not have the facilities to accept this form on line. Please complete a paper form and return to Ethex.

#### CAN WE HOLD SHARES IN JOINT NAMES?

We have historically had very few people applying to hold shares in joint names, so we have decided not to offer this option for this offer.

#### WHAT HAPPENS TO MY SHARES IF I DIE?

If a Member dies, the remaining value of the shares will normally be added to the estate for probate purposes. You can take this option by requesting a form you can use to nominate a recipient for the value of the shares in the event of your death.

NB: Inheritance tax benefit: if a member dies more than 2 years after investing, the shares can qualify for 100% relief under Business Relief for Inheritance Tax because the shares are unlisted.

#### WHAT IS THE RELATIONSHIP BETWEEN MEMBERS INVESTING IN THIS SHARE OFFER AND THE EXISTING INVESTORS IN THE HUB?

The Low Carbon Hub IPS has a number of existing Members, all of whom benefit from one member, one vote. These include:

- Our 349 investor shareholders who hold £1.85m of Class B 'Solar 2014' shares
- 39 early investor shareholders who hold £202,600 of 'Sandford Hydro' shares

The new shares are being offered in two share classes: the 'Sandford Hydro' share class to add to the existing equity of £202,600 and a new 'Solar 2016' share class . All Members will have one vote on matters to be decided at General Meetings but returns will be calculated based on the performance of projects in the share class where their shares are held. This means that:

'Solar 2014' shareholder returns are calculated based on the performance of 1.184MW of solar PV projects developed between 2013 and 2015 to the value of £1.649m.

These projects are:

- Oxford Bus Company
- Charlbury Primary School
- Edward Feild Primary School
- $-Fir\ Tree\ Junior\ School$
- Larkrise Primary School
- Wheatley Park School
- Banbury Academy
- The Warriner School
- Cheney Academy
- West Kidlington Primary School
- $-Norbar\, Phase\, 1$

#### How the Low Carbon Hub IPS works

- -Bure Park Primary School
- Thomas Reade Primary School
- Stonesfield Primary School
- Owen Mumford Chipping Norton
- Owen Mumford Woodstock

'Solar 2016' special class shareholder returns will be calculated based on the performance of 2.083 MW of solar PV projects developed in 2015 and 2016 to the value of up to £2.3m. These projects are:

- $-Nettlebed\ Community\ School$
- Chilton Primary School
- Middle Barton Primary School
- Botley School
- Didcot Girls School
- -Endeavour Academy
- Great Marlow School
- King Alfred's Academy
- Langtree School
- Long Furlong Primary School
- Orchard Fields Community School
- -Prodrive
- Rose Hill Primary School
- Sir William Ramsay School
- The King's School
- Windmill Primary School
- Wood Green School
- UTC Aerospace

'Sandford Hydro' shareholder returns will be calculated based on the performance of Sandford Hydro.

NB. We are offering shares in separate share classes primarily to show a clear relationship between your investment and the projects it funds. The separate share classes will offer some insulation from risk between separate share classes but this method of operating cannot protect your investment entirely from catastrophic, uninsured failure elsewhere in the business.

#### **INSTALLATIONS IF THE** LOW CARBON HUB IPS **CEASES TO EXIST?**

If the Low Carbon Hub IPS is wound up, then its assets will first be used to meet its liabilities; then to repay Members for their shares; and finally any surplus remaining will be passed on to a charity or social enterprise with similar objectives.

#### WHY COMMUNITY ENERGY?

Community energy is an important part of the UK energy picture. Government-commissioned research concludes that, with the right support, UK communities can renewably power one million homes in the UK by 2020. Community energy can range from solar panels on the roof of a village hall to largescale wind energy developments. Community energy schemes deliver the following benefits:

- Use of local resources: Locallyowned schemes are better at exploiting local resources such as solar, biomass, farm waste, water power or wind sites which may be overlooked by commercial developers. They bring diversity to the UK's energy portfolio, building resilience and security.
- Attracting new investment: Community energy schemes attract investment from new sources, often local. Given the significant levels of investment required to renew the UK's energy infrastructure, new sources of finance - such as individual and community investment - are needed.

- Funding energy-reduction initiatives: Many of these community schemes use the income generated to fund local energy-saving initiatives.
- Helping the local economy: Retaining the revenues from renewable energy projects within the community often leads to significant benefits for the local economy.
- Increased awareness of climate change: Community energy schemes can develop "energy literacy" and greater understanding of climate change issues.
- Local action on a global issue: Local schemes are a way for communities to make a difference locally on an important global issue.

#### The overall Share Offer

#### WHAT IS THE MINIMUM TARGET FOR THE SHARE RAISE?

There is no minimum target for the either share raise because short-term construction funding is in place for all the projects. If there is a shortfall in the funds raised through this offer, we will pay off as much debt as we can now and issue further offers or Community Bonds in order to cover the gap.

#### WHAT IS THE MAXIMUM TARGET FOR THE SHARE OFFER?

The target raise for the Sandford Hydro share offer is £1.2m.

The target raise for the Solar PV share offer is £2.3m; this will reduce if any projects fall out of our pipeline between April and July 2016.

#### WHAT HAPPENS IF THE SHARE OFFER IS UNDERSUBSCRIBED?

If we fail to meet our target, it is still our intention to accept share applications. In the first instance we will extend the closing deadline for the share offer to give us more time to attract investment. Should we still fail to reach our target, it is our intention to replace the short-term debt with long-term debt, so that the construction loan can be quickly repaid.

#### WHAT HAPPENS IF THE SHARE OFFER IS OVERSUBSCRIBED?

Should the offer be oversubscribed, we will prioritise investment from individuals and organisations in Oxfordshire. We will then allocate

shares in a way that enables us to gain as many Members of the Low Carbon Hub as possible.

# WHY ARE 50% OF THE FIRST YEAR'S OPERATIONS AND MAINTENANCE COSTS INCLUDED IN THE HYDRO TARGET FOR THE SHARE OFFER?

Income from the sale of electricity and the feed-in tariff is paid quarterly in arrears. By raising an additional £53,000 for Sandford Hydro we can ensure that we can cover the first six months of operations and maintenance for the installation.

#### WHAT FINANCIAL RETURN CAN I EXPECT FOR MY INVESTMENT?

We are forecasting a 5% internal rate of return (IRR) on your investment which includes your capital being paid back over the 20-year life of the investment and annual interest on outstanding balance of Retail Price Inflation (RPI) plus 3%. Interest will be paid annually in arrears.

Interest payments are forecast to start at the end of the second full year of the project, in the spring of 2018, and capital payments are forecast to start at the the end of the fourth full year of the project. In total, we expect that for every £10,000 you invest, at the end of the 20 year project lifetime, you will have received back £19,409: your £10,000 initial capital and £9,409 as interest.

RPI: the amount of interest paid will vary depending on the actual rate of RPI for any given year. We are using the forecast for RPI issued by the Office for Budget Responsibility in March 2016 for the first 5 years, followed by a 2.5% rate for the remaining years of the project.

Bank of England base rate: interest on the long-term project debt for Sandford Hydro is calculated as base rate (currently 0.5%) plus 3.5%. Payment of debt takes precedence over interest payments to shareholders and community benefit. Every 0.5% increase in base rate would imply a 0.2% reduction in community benefit.

Price of electricity sold to the grid: approximately 30% of the total income for the project is dependent on the price of electricity sold to the grid. We are using DECC forecasts for the wholesale price of electricity in the finance model.

#### HOW WILL CAPITAL BE RETURNED?

We predict that from year 4 we will start to return some of the capital invested and shares will be cancelled. In this way we plan to buy back a proportion of shares every year from year 4, so that by the end of the project all the Solar 2016 shares will have been bought back. For Sandford Hydro, which has a life of 40 years, we intend to raise further capital in year 20 to cover repowering costs and a final payment to existing shareholders. Please see the graph and footnote on page 15. However, this is not guaranteed, with the decision whether, and when, to buy back shares at the discretion of the Directors.

#### The overall Share Offer

#### WHY DON'T YOU OFFER

Due to the way in which the Low Carbon Hub IPS is structured, the shares being offered share some of the characteristics of debentures, but owning a share means you can come and vote at general meetings which is great for our community action. If you prefer to lend us money, however, please call us.

#### WHAT IS THE ROLE OF ETHEX IN THIS SHARE OFFER AND WHO ARE THEY?

Ethex is the Receiving Agent for the Low Carbon Hub's share offer, which means that investors wishing to make an investment in the Low Carbon Hub will do so via Ethex's website, ethex.org.uk.

Ethex is an Oxford-based not-forprofit positive investment and savings platform, which makes it easy to make money do good. On the platform, you can browse, compare and invest in a range of products from bank accounts and ISAs to equity investments and charity bonds that offer a social and environmental as well as a financial return. Through Ethex you can invest and save with businesses you believe in - whether it's renewable energy, fair trade, social housing, organic farming, green transport or micro-finance schemes - and these positive businesses can then find the investment they need to develop and grow. Since 2013, Ethex has helped raise over £30 million of investment in 43 charities, social businesses and community organisations.

Ethex is registered with HM Revenue and Customs for Money Laundering Regulation. This is in order that it can receive money from investors and pass it on to the businesses invested in. All monies received from investors are held in a segregated client account, so that they are separated from Ethex's own funds. All Ethex directors have undertaken a 'fit and proper test', as part of the HMRC registration process. Ethex is not required to be authorised by the Financial Conduct Authority in so far as it provides information on or arranges deals in investments. This is because it is an Enterprise Scheme, which is exempt from regulation in arranging financial deals when not for pecuniary gain as specified in the Financial Services and Markets Act 2000 (Exemption) Order 2001, paragraph 40.

#### WHAT IS THE ROLE OF THE **REGISTRY TRUST IN RELATION** TO THIS SHARE OFFER?

The Registry Trust will provide administration of the share register on behalf of the Low Carbon Hub IPS and its investors.

#### WHO DOES THE PROJECT **MANAGEMENT AND OPERATIONAL MANAGEMENT** OF THE PROJECTS?

The Low Carbon Hub IPS does not have any staff of its own. It has a contract with the Low Carbon Hub CIC whereby the IPS pays the CIC for these services.

#### **DATA PROTECTION**

Ethex is administering the share offer and has its own data protection terms and conditions. These allow Ethex to contact you during the share offer. The Registry Trust administers our Membership database once your application has been approved and again has its own data protection terms and conditions which allow it to contact you about your shares. The Low Carbon Hub IPS controls and is responsible for the use of your information for all other purposes. We will use your data to keep you up to date with the work of the Low Carbon Hub IPS and Low Carbon Hub CIC. We will not sell, rent, lend or in any way release your data to other organisations.

#### **HOW WILL THE FINANCIAL BENEFITS FROM THE SCHEME BE SHARED?**

Net of capital repayments, the scheme anticipates it will share the benefits three ways, to pay a fair rate of interest to our Members, to provide savings on the energy bills of the host organisation and to help support community projects.

NB This method of sharing benefit is achieved partly by running the projects at an accounting loss, although the cash position is always positive. This is because the projects are treated as 'wasting assets', so depreciation is charged to the income statement but has no impact on cash held in the bank.

Continued on page 29

#### Sandford Hydro

#### WHAT IS THE PERFORMANCE OF MY INVESTMENT BASED ON?

The forecast annual generation of 1.6GWh is based on historical river flow information. In the 13-year period analysed (from 2000 to 2013) the minimum generation would have been 0.8GWh and the maximum generation 2.5GWh. We expect annual generation to vary from year to year and income shortfalls in years of lower than average generation being compensated by those of higher than average generation.

# WHAT ARE THE TERMS OF THE SHORT-TERM FUNDING FROM RESONANCE CSL FUND AND FINANCE SOUTH EAST?

£800,000 of short-term funding has been provided for a maximum of 4 years with an interest rate of 7.5%, interest only. It is secured against some of the Hub assets. There is an early repayment penalty of 1% of the total loan if it is repaid in year 1. No early repayment penalty will apply if the loan is repaid in years 2 to 4. We intend to replace all of this funding with equity raised through this share offer.

#### WHAT HAPPENS TO THE INSTALLATION AT THE END OF THE 20 YEARS?

The lease with the Environment Agency is for 40 years and the life of the screws is at least 5 The Feed-in Tariff. Pre 0 years. At the end of 20 years, repowering costs of £200,000 (present value) are forecast. The project will be re-capitalised at that point for the next 20 years of operation through a new share offer.

#### WHAT ARE THE TERMS OF THE LONG-TERM DEBT FUNDING FROM THE CHARITY BANK?

The debt facility being offered by the Charity Bank is for up to 18 years with an interest rate of Bank of England base rate (currently 0.5%) plus 3.5%.

For the first 9 months, we only pay interest on the loan, there is no capital repayment; capital is repayable over the remainder of the term. Early repayment fees are only payable if the loan is refinanced to another lender in the first 5 years of the loan term.

The finance model assumes an average rate of 4.5% interest on the loan. We intend to replace this loan over the medium term with either fixed rate debt or a further equity raise. The Charity Bank has recourse only to the assets of the Low Carbon Hub Sandford Hydro Ltd and in the event of a shortfall in income from Sandford Hydro, the Charity Bank will not have recourse to income from the solar projects.

NB. This loan is still subject to satisfactory completion of legal, technical and documentary due diligence.

#### WHAT WARRANTIES AND GUARANTEES DO YOU HAVE?

The systems will be covered by a number of warranties and will be insured against third party damage and theft and for loss of income. Further information is available in the risks section of this document.

The mechanical and electrical equipment will have manufacturers'

warranties for 36 months from start-up and a design life of 40 years. The designer and supplier of the equipment will also guarantee the system performance.

# WHAT WILL BE THE OPERATING COSTS ONCE THE INSTALLATION IS UP AND RUNNING?

The annual operating costs amount to approximately £53,000 and include:

- Rent to the Environment Agency and Oxford Preservation Trust
- System monitoring and administration
- $-\,Insurances$
- An allowance for unscheduled maintenance.

The finance model also includes a fund for the replacement of the upper and lower bearings for the 3 Archimedean screws, generators and gearbox bearings, as well as the refurbishment of generators and couplings. This amounts to £140,000 (present value) over 20 years.

#### Solar PV

#### **ARE YOU SEEKING FUNDING**

At the time of writing we have 18 solar PV installations in our pipeline, 15 of which have signed Heads of Terms. These are named on page 30 of this document. The financial forecasts in this document are based on the forecast costs and performance of these installations.

#### **HOW DO YOU SELECT YOUR PARTNER SCHOOLS?**

We actively welcome enquiries from all Oxfordshire schools and academies, and assess suitability based on a number of criteria which include:

#### Site suitability:

- A site able to host a solar array of sufficient size for the model to be financially viable
- Roof orientation: Ideally oriented between south-east and south-west (or flat roof)
- Roof is structurally sound (and in a condition to support panels for 20-year project lifetime)

Active commitment from the school, and in particular that governors and headteacher are:

- Supportive of the programme
- *Able to work within programme* timescales
- Willing to authorise key steps,  $including\ roof\ lease\ contract$
- Happy to facilitate site surveys and contribute to installation plan

Increasing renewable generation capacity is just part of the story

for helping organisations reduce their environmental impact. As part of the installation process, organisations are provided with an energy performance certificate and associated recommendation report which highlights further opportunities to improve their energy efficiency.

We anticipate that the installation of the solar PV array is just the start of a 20-year relationship with our host organisations. We hope that by working in collaboration with other organisations, alongside the expertise from the host schools and businesses themselves, we will identify further initiatives to improve their environmental impact. We also like to explore opportunities for schools to use their project as an educational learning tool.

#### CAN YOU GUARANTEE ALL THE PROJECTS AT HOST ORGANISATIONS NAMED IN THIS DOCUMENT WILL BE **INSTALLED?**

We anticipate that all solar PV arrays planned for host organisations named in this document will be installed. However, it is possible that installation may be delayed or may not take place at all for a number of reasons, relating to the legal or technical requirements of the project.

#### WHAT IS THE PERFORMANCE

The rate of return forecast in this share offer document has been based on the predicted income resulting from the electricity generated by the set of installations, as in the investment profile on page 19. This forecast is based on industry norms and also on our experience of running our existing set of solar PV projects.

#### WHAT ARE THE TERMS OF THE OXFORD CITY COUNCIL LOAN?

The Oxford City Council loan is short term funding for construction only and has to be repaid within twelve months of the first drawdown for a given project. The interest rate is 5% per annum. The total amount of the facility is £2.3 million to enable the Low Carbon Hub to attempt larger projects. This short-term funding has allowed us to get on to organise installation of the whole pipeline in a planned way over the period from October 2015 to August 2016. The fund also allows us to fund the whole cost of the project including VAT, so that the cash flow impact of VAT is smoothed out.

#### WHO WILL MANAGE THE **INSTALLATIONS?**

The Low Carbon Hub CIC will manage the installations throughout the project's 20-year lifetime. This will include monitoring the performance of the systems and maintenance of equipment.

# Future projects

# Share Offer (continued)

#### WHAT WARRANTIES AND GUARANTEES DO YOU HAVE?

The systems are covered by a number of warranties and will be insured against third party damage and theft and for loss of income. Further information is available in the Risks section of this document.

# WHAT WILL THE OPERATING COSTS BE ONCE THE INSTALLATIONS ARE UP AND RUNNING?

The annual operating costs amount to approximately £63,000 and include:

- Annual maintenance and administration
- -Insurances
- $-\,Unscheduled\,maintenance$
- Contingency.

#### WHAT HAPPENS TO THE INSTALLATIONS AT THE END OF THE 20 YEARS?

At the end of 20 years we would still expect the systems to be performing well, at around 80% of their original capacity. The lease between the Low Carbon Hub and the host organisation will have expired, and host organisations will be given the opportunity to take ownership of the systems.

#### HOW WILL ADDITIONAL INSTALLATIONS BE FUNDED?

Given changes to Government policy, we have been focusing on building out our pipeline of pre-accredited and pre-registered projects. We are currently working with solar PV installers to model potential projects still in our pipeline which we did not manage to pre-accredit by the September 2015 deadline. We expect some of these projects to become viable over the next year or two and so we will hope to be issuing further share offers to fund these projects.

#### WHAT HAPPENS TO MY INVESTMENT IF YOU DEVELOP MORE PROJECTS?

Your return is based on the projects included in this share offer and so your investment does not get diluted if we develop more projects and issue further share offers. Future shares will be offered in a new share class associated with the new projects, and the return to those shareholders will be based on how those projects perform.

# WILL YOU RAISE DEBT SECURED AGAINST EXISTING ASSETS TO FUND THE CONSTRUCTION OF FUTURE PROJECTS?

As we have done to date, we may prefund the construction of new projects by raising short-term debt secured against existing assets. Extra costs of such funding will be modelled as part of the cost of the new set of projects. Should insufficient equity be raised to pay off the short-term debt funding, the continuing costs of this funding would be borne by the new projects being financed by it.

We can do this whilst making a return to shareholders as promised because, as a Community Benefit Society, we make returns as interest, paid before profit is calculated. We do not make dividend payments, which are generally paid after profit is calculated.

Should income net of operational and maintenance costs not meet the level forecast, we will prioritise meeting any debt finance payments. The allocation of any remaining surplus between investors and funding our community benefit projects will be decided at the discretion of the Directors.

#### WHO GETS THE ELECTRICITY?

For the solar PV projects, it is anticipated that most of the electricity generated will be used on site by the host organisation. Any surplus solar electricity will be exported to the grid.

For the Hydro project, all of the electricity will be exported to the grid.

#### Post-construction financial forecast

Solar PV Operating Cash Flow	Years 1 to 5	Years 6 to 10	Years 11 to 15	Years 16 to 20	TOTAL (£)
FiT Income	569,286	641,894	722,041	818,379	2,751,600
Exports Income	779,527	972,574	1,144,265	1,288,626	4,184,993
Total Operating Income	1,348,814	1,614,468	1,866,307	2,107,005	6,936,593
Operating Costs	335,507	386,909	701,167	516,065	1,939,647
Net Operating Cash Flow	1,013,307	1,227,559	1,165,139	1,590,940	4,996,946
Expenditures Cash Flow					
Reserve Funds	116,366	116,366	-232,732	0	0
Interest on Debt	0	0	0	0	0
Debt Principal Repayment	0	0	0	0	0
Interest to Members	557,375	566,924	435,217	182,311	1,741,827
Capital Repayments to Members	125,653	425,231	751,340	982,379	2,284,603
Community Benefit Donations	213,913	119,039	211,315	420,167	964,434
Total Expenditures Cash Flow	1,013,307	1,227,559	1,165,139	1,584,858	4,990,864
Balance	0	0	0	6,082	6,082
Profit and Loss Account					
Total Revenue	1,348,814	1,614,468	1,866,307	2,107,005	6,936,593
Operating Costs	-335,507	-386,909	-701,167	-516,065	-1,939,647
EBITDA*	1,013,307	1,227,559	1,165,139	1,590,940	4,996,946
	-557,375	-566,924	-435,217	-182,311	-1,741,827
Community Benefit Donations	-213,913	-119,039	-211,315	-420,167	-964,434
Depreciation	-571,151	-571,151	-571,151	-571,151	-2,284,603
Total (£)	-329,132	-29,554	-52,543	417,311	6,082

Sandford Hydro Operating Cash Flow	Years 1 to 5	Years 6 to 10	Years 11 to 15	Years 16 to 20	TOTAL (£)
FiT Income	1,082,473	1,247,677	11,411,631	1,597,131	5,338,913
Exports Income	428,450	543,634	677,467	844,247	2,493,797
Total Operating Income	1,510,924	1,791,310	2,089,098	2,441,378	7,832,710
Operating Costs	283,217	419,089	378,064	547,373	1,627,743
Net Operating Cash Flow	1,227,707	1,372,221	1,711,034	1,894,005	6,204,967
Expenditures Cash Flow					
Reserve Funds	74,710	-39,890	62,032	-96,852	0
Interest on Debt	427,512	326,813	196,986	42,886	994,198
Debt Principal Repayment	345,828	527,362	657,190	469,620	2,000,000
Interest to Members	295,349	323,326	288,259	220,317	1,127,251
Capital Repayments to Members	0	95,946	167,906	557,689	821,542
Community Benefit Donations	110,654	138,663	338,661	726,691	1,314,669
Total Expenditures Cash Flow	1,254,053	1,372,221	1,711,034	1,920,351	6,257,659
Balance	26,346	26,346	26,346	0	0
Profit and Loss Account					
Total Revenue	1,510,924	1,791,310	2,089,098	2,441,378	7,832,710
Operating Costs	(283,217)	(419,089)	(378,064)	(547,373)	(1,627,743)
EBITDA*	1,227,707	1,372,221	1,711,034	1,894,005	6,204,967
Interest Payments	(722,861)	(650,139)	(485,245)	(263,203)	(2,121,449)
Community Benefit Donations	(110,654)	(138,663)	(338,661)	(726,691)	(1,314,669)
Depreciation	(786,660)	(786,660)	(786,660)	(786,660)	(3,146,638)
Total (£)	(392,468)	(203,241)	100,469	117,451	(377,789)

NB: This method of sharing benefit is achieved partly by running the projects at an accounting loss for some of the time, although the cash position is always positive. This is because the projects are treated as 'wasting assets', so depreciation is charged to the income statement but has no impact on cash held in the bank.

We can do this whilst making a return to shareholders as promised because, as a Community Benefit Society, we make returns as interest, paid before profit is calculated. We do not make dividend payments, which are generally paid after profit is calculated.

#### Risks

#### **SHARE OFFER RISKS**

As the Low Carbon Hub IPS has been incorporated with limited liability, the liability of its Members will be limited to the amount paid for their shares. However, prior to making any decision to subscribe for shares, you should carefully consider, together with all other information contained in this document, the specific risk factors described below which are considered by the Directors to be material in relation to the Society.

These risk factors are not set out in any particular order of priority and should not be regarded as exhaustive or a complete and comprehensive statement of all potential risk and uncertainties associated with the Society. Additional risks and uncertainties that are not presently known to the Directors, or which they currently deem immaterial, may also have an adverse effect on the Society's operating results, financial condition and prospects.

The Directors have identified the following risks:

#### **SOCIAL INVESTMENT**

Investing in the Low Carbon Hub should be seen as more of a social than a financial investment. We cannot guarantee a safe haven for your money or even that you will ever receive back all the money you invest. The Sandford Hydro offer also requires refinancing at year 20 in order to repower the project for its next 20 years and to repay a final capital instalment to investors.

#### CONSTRUCTION AND **OPERATIONS: SOLAR**

Security for any project finance activity is primarily conferred by the contracts that comprise the project the completeness of those contracts in ensuring that all risks to the owner are covered, and the ability of the lender to step in and operate those contracts in the place of the owner if things do not go as planned. The contracts that comprise the solar projects are:

- 1. Lease/license
- 2. Construction contract
- 3. Manufacturer guarantees
- 4. Power purchase agreement.

All of the agreements will be in place and will have entered into force before any funds are drawn down from the Oxford City Council Revolving Construction Facility. Further details relating to these contracts is available on request.

Our business case has been modelled on the predicted costs of, and income generated by, installations which have either been already installed, or where full feasibility studies have been carried out and either contracts or Heads of Terms are signed or expected to be signed with the host organisation.

Our financial model assumes that the installations are initially funded through a construction facility loan from Oxford City Council, which is replaced by equity investment.

#### However:

- The Low Carbon Hub IPS may be unable to develop energy projects of sufficient scale to provide the forecast returns.

- Should we fail to raise funds to replace the Oxford City Council construction facility, they will have step-in rights, meaning that they *might take over FiT and electricity* sales contracts. This would only happen for the projects whose loan has not been repaid and so investor returns will not be affected.
- Projects may be delayed or incur additional costs due to technical, financial or legal matters.
- Costs associated with the management and maintenance of the project and debt servicing may increase beyond the rate of inflation currently allowed for within our financial modelling.

#### **CONSTRUCTION AND OPERATIONS: HYDRO**

Construction of the hydro is split into 5 different contracts with different contract forms:

- 1. Principal Designer, Project and Contract Manager(BuroHappold): Consultancy Services Contract.
- 2. Civil Works (Fergal Construction): NEC3 Contract with price based on Bill of Quantities.
- 3. Mechanical and Electrical Equipment (Atro Andritz): Fixed price engineering, procurement, installation and commissioning contract, including delivery. The price is fixed in Euros and therefore there is exchange rate risk.
- 4. Grid Connection Contestable Works (UKPN): Fixed price contract based on activity schedule.
- 5. Grid Connection Non-contestable Works (SSEPD): Fixed price contract based on offer by the DNO (Distribution Network Operator).

All of the contracts will be in place together with all the funding required, before any firm orders are placed with contractors. The money currently at risk amounts to the work funded to-date in case the project doesn't go ahead. In that event the loss will be borne by the Low Carbon Hub community benefit fund.

The main risks during the construction phase of the hydro can be summarised into 6 categories:

- Contracted price variation (change in scope and/or quantities and/or exchange rates)
- 2. Additional costs due to unspecified works at contract interfaces
- 3. Additional costs due to delays at contract interfaces
- 4. Unforeseen ground conditions
- 5. Delays due to unforeseen weather conditions
- 6. Inability of contractor to complete initiated works.

All the risks are being mitigated through a combination of detailed surveys, intricate detail design, detailed analysis of contractual interfaces and scopes of work, and contingencies put in place to cover for estimated quantities of work and unforeseen ground conditions. The civil and M&E contractors are also providing performance bonds in case they are unable to complete works.

During the operational life of the plant the main risk is related to the flow of water down the Thames. The finance model assumes an average flow and net head based on 13 years of daily readings provided by the Environment Agency (2000 to 2013). Simulation based on the data shows significant variability from year to

year in the total expected generation, from 0.8 GWh to 2.5 GWh, with average expected generation of 1.6 GWh. The model assumes that payments to shareholders will be curtailed in years of low generation and compensated for in years of higher generation.

#### INCOME

Revenue streams arise from the production and sale of electricity and may be influenced by a large number of factors, some of which are project specific and others which are extraneous, such as how much solar insolation is received by the solar panels each year and, for the hydro, how much rain falls during the year. Technological failure of panels, Archimedes screws, inverters or other part of the system and maintenance may cause interruptions to generation.

The systems are covered by a number of warranties and will be insured against third party damage and theft and for loss of income. These include:

#### Solar PV

- Ten-year manufacturer's warranty on the solar PV panels, 25-year performance manufacturer's guarantee on the solar PV panels, guaranteed to 80% of nominal performance, and panel degradation is built into our financial modelling.
- Inverters are covered by a two-year manufacturers' warranty, and we are building in a fund to enable all inverters to be replaced once within the 20 years.
- $-A six-month\ defects\ period\ after$

commissioning, during which we can call on the installers to address any issues, and a two-year workmanship warranty from the installer.

#### Hydro

- -A 36-month mechanical defects warranty period after commissioning
- System Output Performance guarantee through a system performance test
- Civil works latent defects guarantee;
- Professional Indemnity Insurance from the Principal Designer.

The Directors expect that ongoing output monitoring of all projects will identify unexpected drops in performance which will in turn trigger a check-up of the system and any necessary maintenance. However, there may be interruptions to generation of electricity caused by mechanical/electrical failure of equipment or poor installation, or due to maintenance of the roofs on which the solar panels are mounted or the weir where the hydro is sited.

Other factors include, but are not limited to:

- Local weather conditions may affect the amounts of electricity generated from renewable energy projects.
- -Assumptions built into our financial modelling relating to energy price inflation, proportion of electricity sold to host organisations and export levels may prove to be inaccurate.
- The feed-in tariff. Pre-accreditation or pre-registration applications have been submitted and accepted as

eligible by Ofgem and therefore their FiT tariff is fixed. We do not expect Government policy to be changed so as to apply retrospectively.

#### RISKS TO ENVIRONMENTAL AND SOCIAL BENEFIT

The environmental and social benefits delivered by the project depend on the performance of the installations themselves, and the performance of community projects supported by the Low Carbon Hub IPS and CIC. In particular:

- CO<sub>2</sub> reduction targets for the installations themselves may not be met if green electricity generation is lower than predicted.
- We may not generate sufficient profits to be able to provide the level of financial and other support to community-led environmental and social projects.
- Community-led projects supported by the Low Carbon Hub may not deliver the expected carbon and environmental savings.

#### INTEREST

Low Carbon Hub is permitted to pay interest on your shares, but according to FCA regulation we cannot offer a generous interest rate and may pay no interest at all. Financial performance is based on assumptions which are subject to variation and cannot be guaranteed. The timing of interest payments and rate of interest will be determined by the Board of Directors.

#### **GENERAL INVESTOR RISKS**

As a result of the risks to the projects identified above, investors should be aware of the following risks:

- Shares in the Low Carbon Hub IPS are unquoted securities and may be considered to be riskier than quoted securities and shares.
- There is no prospect of shares in this community benefit society ever being worth more than their nominal value. Investors may receive back less than their original investment and may not get back their original investment.
- Withdrawal of share capital is entirely at the discretion of the *Directors, and investors may not be* able to withdraw their capital.
- The financial performance projections set out in this share offer document are based on assumptions which the Low Carbon Hub IPS considers reasonable, but are subject to variation and are not guaranteed. *Investors may receive lower returns* than those projected.

Information, opinions and quotations

in this share offer document are as at the time of writing and may change without notice. We are under no obligation to ensure that such updates are brought to the attention of any recipient of this material. This share offer document is issued by the Low Carbon Hub IPS. None of the Low Carbon Hub IPS, its Directors, officers or employees give or offer any investment advice to potential investors in relation to the application for investment in the company, or as to whether such an investment is appropriate for a potential investor.

#### YOUR APPLICATION

You cannot withdraw your application for shares after we receive your application form and

The Directors do not have to accept your application for shares. They may decide not to issue shares to you or may allocate you fewer shares than you applied for. They do not have to give any reason for their decision. If the share offer is oversubscribed (i.e. the share offer attracts applicants for more than the amount needed), shares will be allocated in order of receipt of application and payment, with priority given to anyone living in Oxfordshire.

The share offer is expected to remain open until the target amounts for each Share Class are reached. The Directors may give notice of the closure of the share offer sooner, and any applications received after this time will be returned to applicants.

If your application is received prior to the first target deadline of 11 July 2016, it will be considered for approval at the first convenient Board of Directors meeting after the target deadline.

Applications received after the first target deadline will be considered on an ongoing basis at the next convenient Board of Directors meeting after receipt of application. The decision to accept funding after the target deadline will be in part determined by the availability of new projects in need of financing.

#### for applying for shares

#### YOUR PAYMENT

Shares are payable in full on application. The Directors will acknowledge receipt of your payment and application. They may cash any cheques as soon as they are received. Ethex will hold your money on trust for you in a separate account until the Directors have considered your application.

The Directors will return your money to you (within 28 days of the Board of Directors meeting at which they consider your application) if they decide not to issues shares to you. If they decide to issue you with fewer shares than you applied for, they will return the balance to you (within 28 days of the Board of Directors meeting).

All monies subscribed will belong to Low Carbon Hub, and the Directors will no longer hold it on trust for you (to the extent that they take it as payment for shares). Ethex will not pay you any interest on any money it returns to you.

#### YOUR PROMISE TO US

You promise that:

- Your cheque or payment will be honoured on presentation.
- You, as an individual, are at least 16 years of age.
- You have authority to sign the application form. If you are signing it for another person, you will provide the Directors with evidence of your authority to sign if they ask to see it.
- You will supply us with proof of your identity and address, if the Directors ask for it. Ethex will also

need to do this to comply with the Money Laundering Regulations 2003. The Directors may have to hold back your shares until they see this.

- You have a bank account in the United Kingdom.
- You are not relying on any information or representation which is not included in this document.

#### **DEMUTUALISATION**

You may not benefit financially from your shares if Low Carbon Hub converts or transfers its business or is wound up. In this case, the only financial benefits you may receive from your shares are:

- The possibility of interest (at a low rate)
- The possibility of the return of the money you paid for your shares.

The Directors draw your attention to your obligations under Rule 14 of the Rules of Low Carbon Hub IPS regarding the windfall if the Society converts, transfers its business or is wound up. Should any greater financial benefit come into your hands, it will belong to such charity or community benefit society as we may nominate from time to time. You are to hold the benefit in trust for that charity or community benefit society. To secure this (and your obligations under Rule 14.2 of the Rules of Low Carbon Hub IPS) you appoint as your attorney the person holding office (from time to time) as our Secretary. That appointment is irrevocable. Your attorney has power to sign - on your behalf - an undertaking for which we may ask in accordance with Rule 14.3.

#### **MISCELLANEOUS**

The Laws of England apply to this document and any subscription made for shares in the project, and the Courts of England and Wales have exclusive jurisdiction in relation to any disputes arising out of the same. You will be bound by the Rules of Low Carbon Hub IPS (as may be amended from time to time) if the Directors issue shares to you.

The registered office of Low Carbon Hub IPS is: 23 Park End Street, Oxford, OX1 1HU. STATIONS FO

# Other legal stuff we need to tell you

Anyone interested in making an application for shares in Low Carbon Hub IPS Ltd is strongly advised to take appropriate independent advice. The list of risks contained in this document is not necessarily comprehensive. Shares in the Society are not 'investments' for the purposes of the Financial Services & Marketing Act 2000 (FSMA), therefore you do not have the level of protection that you might otherwise be offered by that Act or subsidiary regulations. This document has been reviewed by an 'authorised person' under section 21 of FSMA.

As a community benefit society, Low Carbon Hub IPS Ltd is registered with, but not authorised or regulated by, the Financial Conduct Authority and therefore any money you pay for shares is not safeguarded by any depositor protection or dispute resolution scheme. In particular, you will have no right of complaint to the Financial Ombudsman Service nor any access or entitlement to the Financial Services Compensation Scheme.

Low Carbon Hub IPS Ltd was registered with the Financial Services Authority (the predecessor regulator to the Financial Conduct Authority) on 21 November 2012 (Registered Number 31903R). We use governing documents provided by Wessex Community Assets (www.wessexca.co.uk), specialists in community investments. Our governing document, the Rules of Low Carbon Hub IPS Ltd, is available to download at www.lowcarbonhub. org and explains Member rights as well as the management and constitution of the Society.

As with any investment, there is risk involved. Should Low Carbon Hub IPS Ltd get into financial difficulties:

- We may not be in a position to pay interest.
- We may have to suspend your rights to withdraw shares.
- You may lose all the money you pay for your shares.

If Low Carbon Hub IPS Ltd is wound up, its assets will be first used to meet its liabilities; next to repay Members for their shares; and finally any surplus remaining will be passed on to a charity, society or other body with similar objectives.

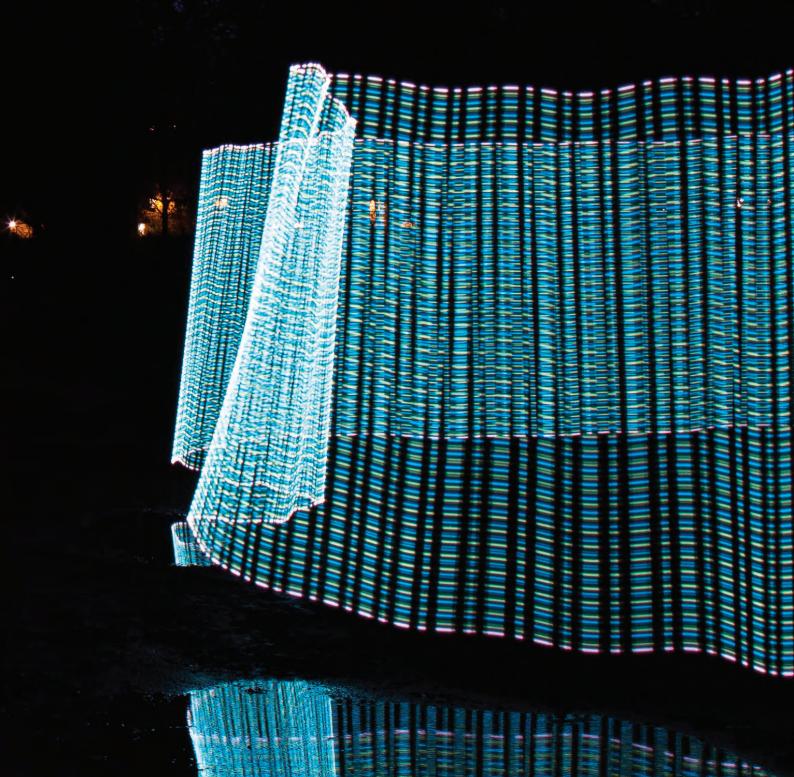
The Directors of Low Carbon Hub IPS Ltd have taken all reasonable steps to ensure that the facts stated in this document are clear, fair and not misleading in all material aspects, and that there are no other material facts, the omission of which would make misleading any statement in this document. To the extent permitted by relevant law and regulation, the Directors and Low Carbon Hub IPS Ltd expressly disclaim and exclude any and all liability based on this document and for any errors or omissions contained in it. No person has been authorised to give any information or make any representation other than those contained in this document and, if given or made, such information or representations must not be relied upon as having been so authorised. All statements of opinion contained in this document, all views expressed and all projections, forecasts or statements relating to expectations regarding future events or the possible future performance of Low Carbon Hub IPS Ltd represent

the assessment of the Directors based on information available to them as at the date of this document but are not to be read as guarantees or assurances that the particular events will in fact come about. Accordingly, no representation is made or warranty given as to the accuracy, completeness, achievability or reasonableness of any such projections, views, statements or forecasts.

CAN YOU AFFORD TO BE WITHOUT THE MONEY YOU WOULD PAY FOR THESE SHARES? IF NOT, PLEASE DO NOT BUY ANY SHARES.

#### 8 OUT OF 10 PEOPLE THINK RENEWABLE ENERGY DEVELOPMENTS SHOULD PROVIDE DIRECT BENEFITS TO THE COMMUNITIES WHERE THEY ARE LOCATED.

Source: DECC's Public Attitudes Tracker 2016



#### **ADVISERS AND BANKERS**

Accountants:

Critchleys LLP,

Greyfriars Court,

Paradise Square,

Oxford, OX1 1BE

Solicitors:

Pennington Manches LLP,

9400 Garsington Road,

Oxford Business Park,

Oxford OX4 2HN

Bankers:

The Co-operative Bank and Triodos Bank

Corporate finance advisers:

Resonance

Marketing advisers:

Ethicore

Share offer administration:

Ethex

Shareholder registry:

The Registry Trust

Low Carbon Hub Ltd is a community benefit society registered in England and Wales.
Registration Number 31903R. Registered address: 23 Park End Street, Oxford, OX1 1HU.

# **CONTACT US**

info@lowcarbonhub.org Tel: 01865 246099

lowcarbonhub.org

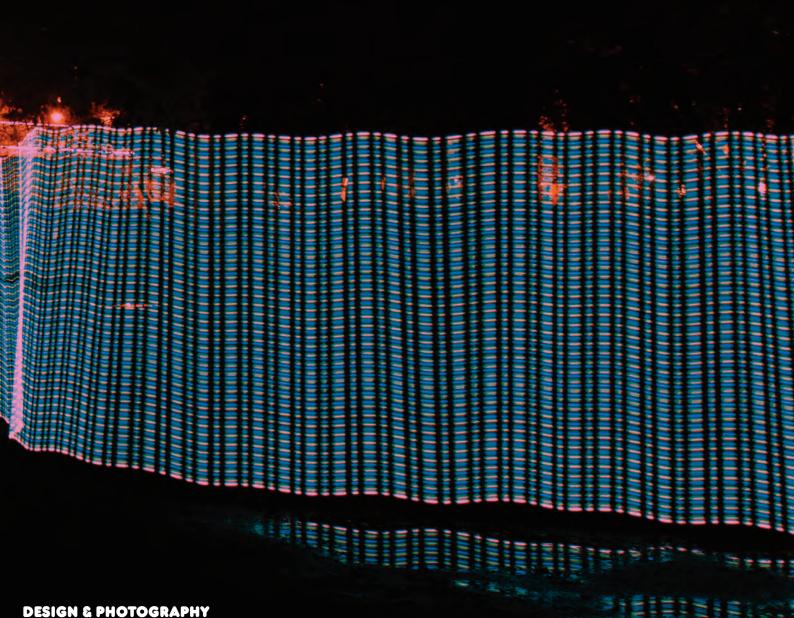
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Low Carbon Hub 23 Park End Street, Oxford OX11HU

#### **STOP PRESS!**

Winner 2016 Ashden Award for Sustainable Communities

Winner 2015 Solar Power Portal Award for Community Benefit



#### SANDFORD HYDRO UPDATE MEMORANDUM

#### February 2017



#### Purpose of this offer

The Low Carbon Hub IPS has decided to re-open the Sandford Hydro share offer for a short period in order to raise the remaining £380k of the £1.2m target set out in the original offer document. This will ensure that £800k short-term debt finance secured against solar projects can be repaid in full. The forecast financial returns to shareholders remain as RPI+3% as set out in the original share offer document. Interest payments are still forecast to start at the end of the second full year of operation in the spring of 2019.

The table below shows how the funding profile for the project will change since the share offer was originally issued if the target for this raise is fully met.

#### Target equity raise (replacing table on p.13 of share offer document)

Sandford Hydro Equity	Original	New figures £
	share offer £	
Equity released by securing 5-year short-term debt		
funding against existing Low Carbon Hub solar projects.		
This funding is supplied by the Resonance Community		
Shares Underwriting Fund and the Finance South East		0 – short-term
Community Generation fund	800,000	loan repaid
Equity from Low Carbon Hub IPS and CIC	200,000	104,327
Equity raised from existing shareholders through a		
private placement in February 2016	200,000	200,000
Equity raised from summer 2016 share offer		820,000
Equity to be raised from the extension offer		380,000
Total	1,200,000	1,304,327
Sandford Hydro Project Costs		
Capital cost <sup>2</sup>	2,680,000	2,889,219
Contingency <sup>3</sup>	225,000	150,000
Project management and financing costs4	160,000	257,103
Contribution to working capital	53,000	
Interest during construction	82,000	98,005
Total	3,200,000	3,304,327

(please turn over)

<sup>&</sup>lt;sup>1</sup>This is as originally set out on p.25 of the original share offer document, 'What financial return can I expect for my investment', but it corrects the date given from Spring 2018 to Spring 2019.

<sup>&</sup>lt;sup>2</sup> Capital costs exclude capital grants raised from various sources.

<sup>&</sup>lt;sup>3</sup> The contingency provision has reduced because the final civil engineering contract price was agreed based on detailed designs and costings.

<sup>&</sup>lt;sup>4</sup> Project management and financing costs have increased because due diligence costs on the Charity Bank loan were more than forecast, legal costs for the leases with the Environment Agency and Oxford Preservation Trust were more than anticipated and legal costs to ensure consistency between German and UK law were incurred for the civil engineering contract.

#### Financial close

Since the share offer document was published in April 2016, we have achieved financial close on the project having achieved a successful conclusion of legal, technical and documentary due diligence on a £2m loan from the Charity Bank and £1.2m of equity provided.

#### **Construction risks**

The construction of the civil engineering works and the fabrication of the three screws are now both well advanced. As a result the risks listed in the share offer document have either been removed from the risk register or have significantly reduced. These are:

- 1. Contracted price variation is no longer a risk. The civil engineering contract price was based on detailed engineering designs and costings and will only vary if the Project Manager agrees that costs have increased for reasons beyond the contractor's control. The cost of the screws was fixed by negotiating a contract for buying the euros that allows us to pay for them when we need to pay invoices but at an exchange rate fixed on the date of the contract.
- 2. Additional costs due to unspecified works where different contracts need to dovetail with each other. This risk has significantly reduced because a table has been included in the civil engineering and M+E contracts that lists all tasks. Responsibility for each one is clearly assigned to a particular contractor.
- 3. Additional costs due to delays where contracts need to dovetail with each other. This risk has also reduced because of the table setting out responsibilities mentioned above.
- 4. Unforeseen ground conditions. This risk has been taken off the risk register because all excavation is complete and there are therefore no unknown ground conditions.
- 5. Delays due to unforeseen weather conditions. This risk is reducing as the civil engineering works proceed. The concrete 'boxes' for the screws are now almost complete and so it is highly unlikely that adverse weather will have an impact. The remaining potential delay is if river levels and flow speed are very high at the time that the screws arrive therefore delaying their transportation upriver. Given that the construction work has had to happen during the winter months, we have so far been very lucky indeed with a relatively dry winter.
- 6. Inability of contractor to complete initiated works. This risk is clearly reducing as the contracts proceed.