



LOW CARBON HUB BUSINESS PLAN

Creating energy we can all feel good about

Plan period: 2017-2020

www.lowcarbonhub.org



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A glossary of terms used in the document is available at www.lowcarbonhub.org/invest

This Business Plan was initially an internal Low Carbon Hub document that was then published for the launch of the Community Energy Fund in June 2018. The figures included were accurate at the time.

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The Low Carbon Hub is two organisations working together. The Low Carbon Hub IPS Limited (registration number 31903R) and The Low Carbon Hub CIC (registration number 7583663). Both are registered in England and Wales and the registered address is 9 Park End Street, Oxford OX1 1HH.

1. OUR VISION

The days of fossil fuels are numbered. The shift to renewable energy generation is gaining pace and gives us the opportunity to reshape the way we manage our energy.

The Low Carbon Hub is a social enterprise that's out to prove we can meet our energy needs in a way that's good for people and good for the planet.

We are calling for the creation of a new energy system that:

- Has renewable generation and energy efficiency at its heart, to reduce carbon emissions
- Makes the money we spend on energy work harder for the benefit of our communities and strengthens the local economy
- Supports the creation of more locally owned community energy projects, putting local power in the hands of local people
- Makes our homes, businesses and community buildings more healthy and comfortable
- Is smart and flexible enough to be able to make the most of future technological solutions.

2. OUR AIM

By pooling the resources of organisations and individuals with our energies and enthusiasm, we aim to deliver:

- Reduced carbon emissions through the generation of clean, green electricity
- Lower energy bills for schools and organisations hosting our installations
- Interest payments to the investor Members whose capital funds our projects
- Long-term funding to support further carbon-cutting activity in our community.

Our role is to be a catalyst of change, helping to create an ecosystem able to develop and to pilot practical, real-world solutions that will become models for other communities throughout the world.

3. OUR ORGANISATION

STRUCTURE

The Low Carbon Hub comprises two organisations working in co-operation: The Low Carbon Hub IPS Limited (a Registered Society) and the Low Carbon Hub CIC (a Community Interest Company).

The Low Carbon Hub IPS Limited

The IPS was set up as an Industrial and Provident Society, which is a legal form used for organisations that act either as a co-operative or for the benefit of the community. In 2014 The Co-operative and Community Benefit Societies Act consolidated and replaced previous Industrial and Provident Society legislation. Under the Act a society registered before August 2014 must refer to itself as a 'Registered Society', rather than a Community Benefit Society, although we are governed by the Act.

Key principles are:

Purpose

- Our business must be entirely for the benefit of the community.

Membership

- We have Members who hold shares and we are run on a democratic 'one member, one vote' basis.

Application of profits

- Profits must be used for the benefit of the community, with any interest on share capital being viewed as an operating expense rather than a distribution of profits.

Use of assets

- These must only be used for the benefit of the community and, as such, have an 'asset lock'. These include both the physical assets and the profits of the organisation.

The Low Carbon Hub IPS Limited, including its wholly owned subsidiary Low Carbon Hub Sandford Hydro Limited, holds our renewable energy generating assets and is the organisation which raises capital through investment.

The Low Carbon Hub CIC

Hub structure. It is a Community Interest Company (CIC), a social enterprise that wants to use its surplus or assets for public good.

The CIC has four key roles:

1. Developing investment opportunities on behalf of the IPS, into which the IPS may then choose to invest.
2. Managing the generating assets, on behalf of the IPS.
3. Delivering community benefit activity.
4. Leveraging further resources such as additional grant funding, contracts and support, to foster the development of community-led solutions to tackle climate change.

The CIC receives development and management fees from the IPS for these services.

ACCOUNTABILITY

IPS Members

The IPS has over 808 Members. Together they have invested £4.1 million in the IPS, enabling us to fund our first waves of rooftop solar PV installations and Sandford Hydro. All Members have a vote at the AGM and can stand for election to the Board. We operate on a 'one member, one vote' basis, regardless of the size of an individual Member's shareholding.

CIC Shareholders

Our 27 CIC community group shareholders are low carbon community groups. Representing communities from across Oxfordshire, they ensure our operation is transparent and is guided by those it is set up to serve. Representing almost half of the county's low carbon groups, our shareholders were either involved in the initial set up of the Hub, or are groups that the Hub has directly worked with since its creation. We want to extend our Membership to all low carbon groups in the county that wish to join and to actively support more groups as our income grows.

Our Boards

The IPS and CIC are governed by two Boards comprised of individuals who mostly live or work in Oxfordshire and are accountable to our shareholders. Most Directors hold a place on both Boards, and the two Boards meet regularly to foster a shared strategic vision. We ensure we have at least one Director on each

Board who is not a Director of both, to ensure they can act independently to vote on issues where there is a conflict of interest between the two organisations. In addition, the CIC Board has a Community Director who is elected by our community shareholders, with the specific role of ensuring our communities have a dedicated voice on that Board.

All stakeholders

We conduct an annual 'How are we doing?' survey asking if our stakeholders feel we have been effective and how we can improve. The results are published online at www.lowcarbonhub.org/impacts

MANAGEMENT

Each Low Carbon Hub organisation has its own Board. Our non-executive Board members are volunteers

who give their time for free to fulfil their Board duties. You can find biographies of our Boards' Members at www.lowcarbonhub.org/our-people. The Boards are responsible for ensuring the companies meet their statutory and other obligations, directing our overall strategy and making major decisions with regard to the Low Carbon Hub's activities.

The day-to-day operation of the Low Carbon Hub is managed by a team of 10 staff (8.5 full-time equivalents) employed by the CIC.

The full staff list is available on our website: www.lowcarbonhub.org/contact

4. THE OPPORTUNITY

THE EXTERNAL LANDSCAPE

We are now accelerating towards an all-electric renewables future, where heat, transport and power are all provided as near to the point of consumption as possible. This is happening because:

1. Enabling technologies are increasingly available, particularly smart IT and battery storage, in a way that they were not even three years ago. This allows renewable energy to be stored and shared, so intermittency of supply will no longer be such a problem. It is anticipated that the cost of batteries will fall, mirroring the recent reduction in price of solar panels driven by Chinese-led scaling up of global production.
2. Our Distribution Network Operators are working out how to make the transition to becoming neutral Distribution Service Operators, which facilitate changes to the way we buy and sell electricity, including the development of local peer-to-peer trading platforms.
3. District heat networks are proving difficult and costly to implement and so are unlikely to provide coverage other than in areas with high heat loads, such as city centres or in large areas of new housing and tower blocks.
4. Wood biomass is only likely to play a niche role in providing renewable heat because of air quality concerns and because the availability and quality of wood pellets or chips remains a risk that is very difficult to price.
5. Hydrogen and fuel cell technologies can help to decarbonise our energy system by acting as a vector for renewable electricity or gas and as storage for renewable electricity. It is as yet unclear exactly what role these technologies will play in the transformation of the energy system.
6. The UK Government has very recently, in April 2018, announced that the UK will need to review its carbon targets with a view to legislating for a net zero emissions target in the future ¹.

¹ Claire Perry is the Minister of State for Energy and Clean Growth and the Department for Business, Energy and Industrial Strategy. She announced at the Commonwealth Heads of Government conference on 18th April 2018 that the Independent Committee on Climate Change would be instructed to advise on how the UK's long-term climate goals could meet the aspirational 1.5 degrees centigrade limit agreed in Paris. This followed a statement in her cover letter for the UK's 2050 climate goals submitted to the UN where she said:

'More needs to be understood about the global path to net zero emissions and to help meet this, the UK will need to legislate for a net zero emissions target at an appropriate point in the future to provide legal certainty on where the UK is heading.'

COMMUNITY ENERGY MANIFESTO

Our vision is set out in detail in our Community Energy Manifesto (www.lowcarbonhub.org/manifesto). Our vision will consist of a series of interdependent, local, smart grids with interconnectors to the regional distribution network and, for emergency back-up, to the transmission grid. Characteristics of such a system are emerging from research in more detail now and include:

- Robust microgrids may be operable at a scale as small as 30 households.
- Large-scale uptake of electric vehicles can occur without adding to our baseload electricity-generation infrastructure. This is done by using smart technology to match electric vehicle (EV)

charging patterns to that of the electricity supply (Crozier, Apostolopoulou, McCulloch 'Mitigating the impact of personal vehicle electrification: A power generation perspective', *Energy Policy*, 2018).

- The cost of battery technology will reach grid-parity in about three years, based on projected global production of 175 GWh by 2020 (Malcolm McCulloch, Oxford University).
- Enough batteries will be produced per year by 2020 to power 60m fully electrified cars (Malcolm McCulloch, Oxford University).
- Peer-to-peer trading of real electricity supply and demand is being trialled and Ofgem is considering how to develop regulation to support it.
- Hydrogen and fuel-cell technology is now starting to be deployed and could help to store renewable electricity for use in heating buildings and fuelling buses and heavy freight vehicles quickly.

5. OBJECTIVES 2017–20

As we move from start-up to scale-up we have spent some time consolidating our internal systems to ensure we have robust foundations from which to continue to expand our work. We are now working towards the delivery of the following key objectives by March 2020.

1. EXCELLENT ADMINISTRATION

To develop into a recognised centre of excellence for financial and operations administration. Including in the following areas:

- Governance and Board management for each of the three Hub companies (Low Carbon Hub IPS Limited, Low Carbon Hub CIC and Low Carbon Sandford Hydro Limited)
- Operations and maintenance of Low Carbon Hub IPS solar and hydro projects
- Financial management of the three Hub companies
- Social impact reporting for the Hub companies
- Communications to Hub stakeholders, particularly investor shareholders in the IPS and community shareholders in the CIC.

2. GROWING THE ASSET BASE

Growing the portfolio of energy projects enables us to increase our direct impact on curbing CO₂ emissions,

while growing our long-term funding for community benefit. We will install a further pipeline of renewable energy projects to the value of approximately £1m per annum of capex, which will increase both the resilience of the Low Carbon Hub and its ability to achieve its vision.

3. GROWING COMMUNITY BENEFIT

Further develop a community benefit model for the Hub and its shareholder communities, that has real impact and sustainability. This includes:

- A grants programme to support the work of our Low Carbon Hub CIC community group shareholder members
- Grants and loans for community energy social enterprises in Oxfordshire
- Helpdesk service offering help and advice to support community energy in Oxfordshire and beyond
- Further development and maintenance of the People's Power Station, an online interactive map showcasing the impact of collective action of community energy in Oxfordshire
- Development of an Oxfordshire Powering Down Households Programme
- Development of an Oxfordshire Schools Programme.

4. CATALYSING INNOVATION

Lead delivery of the three-year OxFutures programme of £3.2m that will result in:

- Five new low carbon Small and Medium Enterprises (SMEs), including at least two new social enterprises
- A new business model for Community Energy

Service Companies running smart microgrids in both rural and urban areas

- Four SMEs selling new low carbon products and services
- Two SMEs collaborating with Oxford University and Oxford Brookes University
- 136 SMEs having received energy audits, and other support, to increase their energy efficiency.
- 1,040 tonnes of CO₂ saved.

6. DELIVERY

As a catalyst of change, the Low Carbon Hub's key role is to pilot new solutions through collaborative partnership models, to support delivery at the early-adoption stage of the innovation curve. We aim to do this by building core networks where there is a high degree of trust between the partners.

We do not feel it is our job to scale up solutions at the national and international level. Neither is it for us to invent new technologies or to favour any one emerging technology over others. Rather, we will help to adapt new solutions to local situations.

As a result, we choose to work in areas where:

- We can build a trusted ecosystem of partners.
- We can use small amounts of community benefit funding to create leverage for much larger amounts of investment.
- We can have a transformational impact within Oxfordshire.

7. KEY AREAS OF FOCUS IN 2018/19

1. EXCELLENT ADMINISTRATION

Bringing share registrar role in-house

The cessation of registry services by the Registry Trust gives us an opportunity to bring the management of our share register in-house. As a result, we aim to strengthen our relationship with our investor Members and deliver a high level of investor care.

Sandford Hydro systems

With the successful commissioning of Sandford Hydro now complete, we will embed its operation and maintenance into our systems, and develop our site maintenance and visitors programme.

2. GROWING THE ASSET BASE

Oxford North Community Renewables (ONCORE)

Following discussions with the ONCORE Board and their consultation with their Members, the Low Carbon Hub IPS Limited will take over the assets of the organisation in 2018/19. We will welcome their Members into the organisation and embed the management and maintenance of the St Barnabas and Cherwell Schools solar PV arrays into our systems. All profits from the arrays will continue to support benefits to the community as originally intended.

Schools programme

FIT-based solar PV roll out

The Feed-in Tariff (FIT) is coming to an end for new installations in March 2019. We will focus

on encouraging schools to install solar PV to take advantage of the remaining FIT. We are working closely with Oxfordshire County Council to roll out a programme for maintained schools.

Post-FIT offer

We will prepare for our post-FIT offer for solar installations between now and March 2019. By combining solar PV with battery storage, energy efficiency and electric vehicle charging, we hope to create a financially viable package. We will continue to work closely with the County Council in doing this but also prepare an offer for academy schools.

Innovative projects

We are working on a number of innovative projects detailed in section 4 below, which we expect to come forward for investment during the plan period.

Community Energy Fund

Growing the asset base requires capital. We are launching the Low Carbon Hub Community Energy Fund to raise investment each year to fund a pipeline of future projects, replace debt funding and facilitate equity withdrawal. This will mark a shift from the series of project-specific time-bound share offers we have used to raise equity to date, to an open share offer approach.

3. GROWING COMMUNITY BENEFIT

Grants programme

We will continue to run the small and large grants programme to support the carbon cutting action of our low carbon community group members.

Helpdesk

We will continue to offer help, support and advice to the community of Oxfordshire through our helpdesk service and act as an advocate for community energy.

Community buildings energy efficiency

We will manage a grants programme funded by Westmill Solar to carry out energy audits on community buildings.

Schools

Estates: We are working with the Ashden Trust to bring their successful 'Less CO₂' programme to Oxfordshire.

2018, supporting 10–15 schools to manage energy use more efficiently.

Previous participants achieved an average of £2,600 savings and 10 tonnes of CO₂ reductions per school in the first year. If successful, we will roll out the programme across Oxfordshire. Our role is to recruit participants and work with Ashden staff to support schools throughout the programme. In addition, we are offering free energy audits to schools and, if appropriate, will support the installation of solar PV.

Education: Westmill Sustainable Energy Trust are leading on the development of a community energy educational programme for schools, which will complement our schools energy efficiency work.

4. CATALYSING INNOVATION

OxFutures

The Low Carbon Hub is the lead partner in the delivery of the second phase of OxFutures.

The first phase was a four-year programme, grant-funded by Intelligent Energy Europe of the European Union, which brought £18 million of investment into local renewable energy and energy efficiency projects across the City and county.

Phase two started in April 2017 and is a three-year, £3.2m project to boost low carbon economic development in Oxfordshire. It is supported by the European Regional Development Fund (ERDF) and run through a collaborative partnership between the Low Carbon Hub, Oxford City Council, the University of Oxford, Oxford Brookes University, Cherwell District Council and the charity BioRegional.

The project offers free energy audits to SMEs, identifying energy-saving opportunities to reduce energy bills and cut carbon emissions. The project will then part-fund the implementation of the audit recommendations.

OxFutures has a further innovation strand which is creating knowledge sharing between academics, local authorities and SMEs, with a view to supporting innovative projects, new start-ups and low carbon products and technologies.

The result will be an improvement in SME competitiveness, a reduction in SME energy bills and CO₂ emissions and a boost to Oxfordshire's development as a UK leader in the new low carbon economy.

During the three years of the project we will explore the following areas:

Local microgrids

Through OxFutures, Oxford University and other partners are exploring the concept of local microgrids in detail.

Demonstrator project: OxFutures is supporting a community-led housing project in Hook Norton to model and pilot smart microgrids, so that we fully understand:

- The modelling and regulatory requirements of a local, smart microgrid
- The technology and communications requirements to enable a microgrid to work reliably
- The business model and investment proposition
- How to make a microgrid fully modular and able to be scaled up or down
- What a Community Energy Services Company would look like to run a series of local smart grids for local communities.

EV/PV/Park and Rides

We are working on models for turning big car parks into community power stations for zero-emissions transport. Oxford Bus Company has also been awarded funding to turn its sight seeing fleet into all-electric buses, as part of the Zero Emissions Zone strategy in the City.

Feasibility pilot project: Work with the partners to identify a first pilot project. Explore ways in which our social enterprise corporate structures can enable investment-raising for more risky, early-stage projects.

Local balancing roll-out

The local balancing model used by Energy Local enables energy generators to link directly to their consumers. We have been looking for ways of working with them for some time and will do so through Osney Lock Hydro which has been awarded grant funding and has started on modelling the potential Oxford West Local Energy Trial (OWLET).

Second stage demonstrator project: Energy Local model

We will work alongside OWLET to better understand the local balancing model, developed in Bethesda, Wales, so that we can:

- Identify existing opportunities and find new ones for repeating the small-scale 240v connection in Oxfordshire.
- Support exploration of the 11kV connection model working with Southill Solar and Sandford Hydro as potential projects.

Powering down: Energy efficiency retrofitting

We are developing our approaches to households and SMEs both through our community benefit grants (particularly to explore different methods of community engagement) and through OxFutures.

Importing a successful cooperative model to Oxfordshire: Households

We are working with Parity Projects to bring their RetrofitWorks model into Oxfordshire, and in tandem hope to develop a community retrofitting fund to help finance activity.

We are exploring three pilot projects:

- A boiler replacement offer to 'able-to-pay' households
- An insulation and heating offer to off-grid households qualifying for ECO funding
- A pilot community 'problem-solving' approach focusing on the leaky bay windows in Florence Park and Rose Hill.

Focus: Small and Medium Sized Businesses

Our OxFutures energy audit and grant offer is going well, with over 50 businesses already signed up and very positive feedback. We would like to continue the programme after OxFutures project has finished and are exploring ways of putting that legacy in place.

8. IMPACT

We develop community-owned renewable energy in Oxfordshire and reinvest 100% of our surplus in our mission to create an energy system we can all feel good about. Over the three years of this business plan we want to increase our impact as measured in terms of the progress we make against four sets of indicators – Planet, Prosperity, People and Perception. The following tables summarise our progress against our initial targets for this business planning period, as set in April 2017.

PLANET

We aim to increase the number of renewable generation installations to 51, more than **doubling our annual generation of green electricity**, enough to power 2,000 homes – saving 3,000 tonnes of CO₂ each year.

	As of March 2017	As of March 2018	Target by March 2020
Number of installations	36	38	51
Installed capacity	3.08 MWp	3.12 MWp + 440 kWe	6.1 MWp + 440 kWe
Annual generation	2,643 MWh	4,187 MWh	6,800 MWh
Annual CO ₂ savings	1,188 tonnes	1,562 tonnes*	2,600 tonnes*
Enough to power	853 homes	1,351 homes	2,200 homes
Or provide	166 people's share	264 people's share	425 people's share

*based on 2017 grid carbon intensity

PROSPERITY

To fund these projects, we aim to **more than double the investment** in the Low Carbon Hub IPS Limited to £8 million. By pooling our resources, the resulting projects will enable us to **triple the total interest paid to investors, double surpluses for community benefit and increase the lifetime energy savings by our hosts to £2 million.**

	As of March 2017	As of March 2018	March 2020 Target
Total equity invested	£3.459 million	£4.1 million	£8 million
Loan financing	£2.723 million	£3.5 million	£2 million
Total	£6.182 million	£6 million	£10 million
Interest to investors (lifetime) *	£2.096 million	£4.7 million	£6 million
Discount to hosts (lifetime) *	£1.613 million	£1.6 million	£2 million
Community benefit (lifetime) *	£1.565 million	£2.4 million	£3.5 million

* Based on 20-year project lifetime

PEOPLE

Our success is dependent on our growing network of members, partners and supporters across Oxfordshire. Over the next three years we aim to increase our membership, **more than doubling our investor base, increasing our community shareholder numbers and growing our network of partners and grassroots supporter base.**

	As of March 2017	As of March 2018	March 2020 Target
Investor Members	647	808 to follow	1,100
Shareholdings	908	1,156 to follow	1,750
Community shareholders	27	27	35
Host organisations	31	33	46
Helpdesk cases	60	69	60
Energy audit recipients	0	48	70
School programme participants	0	0	15
Facebook followers	317	395	600
Twitter followers	2,275	2,785	3,000
Newsletter recipients	2,953	* 2,785	3,000

* Our mailing list is likely to decrease from May 2018 as a result of creating a new list that is fully compliant with new data protection "GDPR" regulations.

PERCEPTION

Throughout our work, we want to be a transparent and trusted partner, sharing our knowledge and expertise openly. We need to continue to earn the trust and respect of our stakeholders and **maintain, or improve, our perception rating.**

As at the end of the 2017/18 financial year, our 'How are we doing?' survey of stakeholders revealed the following views of respondents:

- 98% have quite high or high trust in Low Carbon Hub's expertise around local, renewable energy and low carbon (average score: 3.57 out of 4)
- 96% perceive Low Carbon Hub to be quite or highly committed to the creation of a low carbon, locally owned renewable energy system (average score: 3.81 out of 4)
- 85% report Low Carbon Hub had a moderate or substantial impact on their knowledge
- 76% report that the Low Carbon Hub has contributed to their taking some action on energy or environmental issues
- On average, 85% were likely to encourage others to get involved with the Low Carbon Hub (average score: 7.53 out of 10).

Results based on 124 respondees, March 2018

9. FINANCING

CIC

The CIC uses a mix of donations and contract income to carry out its work. Our key income streams are:

- Fees from the IPS for the development and management of assets
- Donations from the IPS to support our community benefit work
- Donations from third parties to support further community benefit activities
- Contract and grant income that enables us to catalyse innovation.

We are the lead partner in a £3.2m project to boost low carbon economic development in Oxfordshire. It is supported by the European Regional Development Fund and run through a collaborative partnership between the Low Carbon Hub, Oxford City Council, the University of Oxford, Oxford Brookes University, Cherwell District Council and BioRegional. The project runs until March 2020. See the *Share Offer Document* for further information.

IPS

The key financing requirements of the IPS relate to the capex costs associated with growing our new portfolio of energy projects.

We have a short-term loan facility in place with Oxford City Council, enabling us to develop and deliver

projects as opportunities arise. We then replace the short-term debt with a combination of long-term debt and investor equity. We work to a target of a maximum 50% of debt funding of our overall asset base.

To date, our approach has been to raise equity to replace debt funding relating to distinct portfolios of assets via a series of time-limited closed share offers. We are now launching the Community Energy Fund to enable us to raise equity on an annual basis, and in a more flexible way. We have already identified the following equity requirements:

- Replacing the short-term debt held against the Solar 2016 Portfolio (£1.3m by March 2019)
- Funding FIT-based solar PV roll out in schools (by March 2019)
- Developing new types of project as they emerge.

As a community energy organisation, it is important to us that a significant proportion of our overall asset base is owned by the local community. The Community Energy Fund will give us an annual opportunity to raise the equity needed to continue to grow our asset base. Each year we will set a target for raising new equity to enable us to replace any short-term debt used to fund projects over the previous year, and to meet our confirmed funding needs for new energy projects for the following 12 months.

10. COMMUNITY ENERGY FUND MARKETING

Our medium-term target for new capital for the Low Carbon Hub IPS Limited is £1.5m, to be raised in two tranches, by March 2019. We are launching the Low Carbon Hub Community Energy Fund as an ongoing mechanism for investment each year to fund a pipeline of future projects, replace debt funding and facilitate equity withdrawal.

Consultation

81 people (57 of whom are our current investor Members) participated in a survey in Autumn 2017 to help shape this share offer. The survey helped confirm our belief that there continues to be interest in new opportunities to invest in community energy. The

survey also fed into the design of the new offer which will feature:

- The financial return stated as a simple annual interest rate, rather than as an Internal Rate of Return (IRR)
- Interest being earned from the day of investment
- A clearer mechanism for people to withdraw their equity.

Community Share Mark

We are working towards gaining the 'Community Shares Standard Mark' for the project. Meeting this standard offers a clear structure for the share offer

and an assessment process that we believe will help us create a share offer that is informative and easier for potential investors to understand. As part of our commitment to achieving the Mark, we will sign up to a code of practice, which includes an external complaints system. By doing so we strengthen our commitment to transparency and fair dealing with our Investor Members.

Launch

We will launch the Fund in June 2018, with an initial £1 million target, followed by a second round of investment opportunity in January–March 2019.

Management

The offer will be hosted by the online investment platform Ethex, which has hosted our previous share offers.

11. RISKS

Our community energy business model is a tried and tested approach, which the Low Carbon Hub has successfully delivered for the past six years, and one which has been adopted by several other community energy organisations.

Organisational risks

As two organisations operating to a common aim and vision, a key risk for the organisation is ensuring that the two organisations remain aligned both operationally and strategically.

Project risks

The risks associated with each energy project are assessed on a project by project basis. Each new project requiring capital outlay is scrutinised by our investment committee. They take into account the financial modelling, project delivery, operational and technology risks, underlying assumptions and measures proposed to mitigate against risk, such as warranties, before approving any individual project.

We have established systems to monitor the performance of our energy-generating projects, so we quickly spot any underperformance. Our financial models allow for the replacement of key equipment elements, such as solar PV inverters, during the lifetime of the project.

Promotion

We very much hope that the share offer will be of interest to our existing investor Members. We also hope that the simplified financial return and right to apply to withdraw equity will encourage individuals who have yet to invest, but are supportive of our aims.

Our key areas of marketing focus will be:

- To our existing members
- Via our community networks and key stakeholders
- Online, supported by a video featuring our current investors, hosts and community beneficiaries.

As we develop new types of energy project, the development of appropriate monitoring and risk mitigation systems will form a key part of the piloting of a new initiative.

Income risk

The IPS income is achieved through the generation and sale of electricity. We have contracts in place with our host organisations, giving both the IPS and host long-term security regarding the price of the electricity we supply. Another key element of income relates to the Feed-in Tariff. This is locked in for 20 years, and RPI linked.

This long-term security of income has given community energy organisations the confidence to undertake a scale of capital investment which might otherwise be daunting for a social enterprise. In addition, the Low Carbon Hub has succeeded in developing a sufficient asset base such that we have the economy of scale to cover our core operating costs from our own income, securing the long-term financial sustainability of the organisation.

However, the disappearance of the Feed-in Tariff in March 2019 will challenge us to develop new community energy projects which can continue to deliver environmental and financial rewards to their communities. This is a challenge we relish.

12. FINANCIAL PROJECTIONS

LOW CARBON HUB

	2017/2018	2018/2019	2019/2020
IPS Operational income & expenditure (£)	Actual	Forecast	Revision
Total solar revenues	441,094.00	610,392.00	650,445.00
Total hydro revenues	53,144.54	315,264.00	325,825.00
Total revenue income	494,238.54	925,656.00	976,270.00
Total solar costs	319,792.00	415,982.00	438,400.00
Total hydro costs	90,276.00	306,063.00	313,211.00
Total operational and financing costs	410,068.00	722,045.00	751,611.00
Solar net income	121,302.00	194,410.00	212,045.00
Hydro net income	-37,131.46	9,201.00	12,614.00
Total profit for community benefit	84,170.54	203,611.00	224,659.00
Planned CB donation	100,000.00	136,000.00	136,000.00

	2017/2018	2018/2019	2019/2020
CIC Operational expenditure (£)	Actual	Forecast	Revision
Total fees: operations and maintenance & development	143,549.00	210,358.00	227,760.00
Net grant income, mainly ERDF	133,477.00	250,976.00	166,192.00
Total donations (inc Eynsham FiTs)	115,800.00	136,000.00	136,000.00
Total IPS success fee *	0	38,500.00	38,500.00
	392,826.00	635,834.00	568,452.00
Total payroll	266,098.00	323,952.00	333,670.56
Community benefit donations	6,245.00	77,500.00	77,500.00
Total expenses	327,913.00	514,722.00	479,440.56
Net operating income	64,913.00	121,112.00	89,011.44

Total community benefit remaining	49,083.54	188,723.00	177,670.44
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* IPS pays CIC for developing its projects

PROJECTIONS FOR THE DEVELOPMENT OF THE COMMUNITY ENERGY FUND

	2018/2019	2019/2020	2020/2021	Total
Planned financing (£)				
From share offer	1,400,000	1,300,000	1,300,000	4,000,000
Oxford City Council Revolving Construction Loan Fund	600,000	-300,000	-300,000	0
Total investment	2,000,000	1,000,000	1,000,000	4,000,000
Planned allocation (£)				
Solar 2016 portfolio	1,300,000	0	0	1,300,000
Schools FIT pipeline	700,000	0	0	700,000
Post-FIT pipeline	0	1,000,000	1,000,000	2,000,000
Total investment allocation	2,000,000	1,000,000	1,000,000	4,000,000