



SOCIAL IMPACT REPORT 2022



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OUR GUIDING PRINCIPLES

Ethos

- Community-focused
- Inclusive
- Collaborative

Impact

- Maximise leverage
- Tangible
- Visible
- Replicable
- Scalable
- Lasting



Welcome to our 2022 Social Impact Report, a summary of the contribution we have made during the past financial year towards the creation of an energy system that's good for people and good for the planet.

Highlights from 2021/22 include:

- the new **300+** investor Members who have joined us, putting their savings to work supporting community-owned renewables
- over **£1.9 million** of new investment raised to support our growing portfolio of renewables bringing total investment to over £10 million
- **35,000** solar panels installed at Ray Valley Solar, bringing the total number of Hub-owned panels to 50,000
- almost **£3 million** of community benefit activities carried out across Oxfordshire supporting individuals, communities and organisations and catalysing innovation
- hitting a key OxFutures target a year ahead of schedule – awarding almost **200** SMEs with energy assessments.

The growing level of extreme weather being experienced around the world, and the escalating energy crisis, has made our work at the 'grid edge' more important than ever.

Our energy efficiency projects Energy Solutions Oxfordshire for businesses and Cosy Homes Oxfordshire for homeowners are helping our communities reduce their energy demand.

Our innovative work in Project LEO (Local Energy Oxfordshire) aims to put communities at the heart of a smart and more flexible energy system.

Sadly, our work continued to be affected by Covid-19 and global supply chain issues this year, which delayed completion of Ray Valley Solar and affected a number of our activities. We are also becoming increasingly frustrated that 'business as usual' can hamper the innovation needed to accelerate the transition to a low carbon energy system.

We draw strength from the knowledge we are not alone in our efforts, and we thank everyone who has been involved with, and supported our work over the past year.



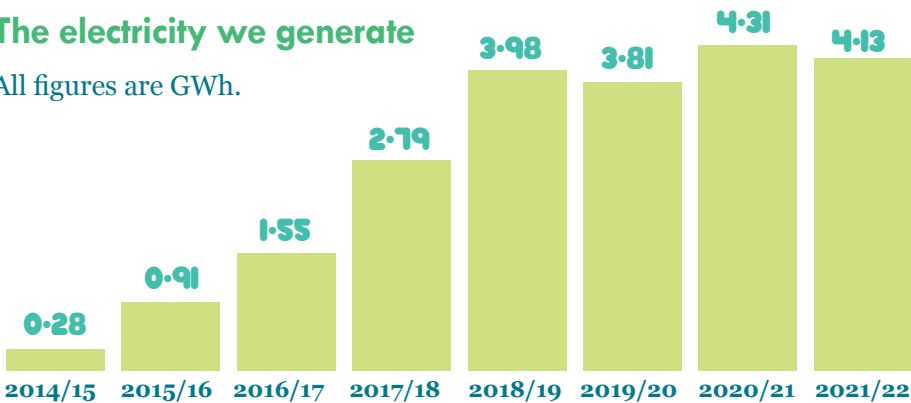
PLANET

We want to protect our warming planet both by creating renewable energy projects and by reducing energy demand.

A combination of the Covid-19 pandemic and global supply chain issues meant no new renewable projects were completed during the financial year. Generation from our existing assets decreased slightly, mainly due to a return to typical modelled solar generation after last year's exceptionally high performance. We expect generation to increase next year as new projects come online.

The electricity we generate

All figures are GWh.



In 2021/22 we:



GENERATED

4.13

**GWH ACROSS ALL
OUR LIVE PROJECTS**



SAVED

955

**TONNES
OF CO₂¹**



**NO NEW
PROJECTS
INSTALLED**

Our total portfolio stands at:



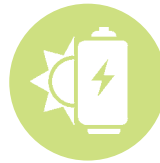
47

**RENEWABLE ENERGY
INSTALLATIONS**



4.0

**MW INSTALLED
CAPACITY**



50

**KW OF
BATTERY STORAGE**

Together, each year, they have the potential to...



POWER

1,566

TYPICAL HOMES²



PROVIDE

285

**PEOPLE'S SHARE OF
OXFORDSHIRE'S DIRECT
ENERGY NEEDS³**

This year, we continued to work on Ray Valley Solar which, when fully operational, will annually:



GENERATE

19

**GWH OF CLEAN
GREEN ENERGY**



POWER OVER

6,000

HOMES



**Change from
2020/21**

² Typical household annual electricity usage based on Ofgem typical tier 1 domestic medium user of 2,900kWh.

³ Total energy used to power Oxfordshire's homes and organisations each year, divided equally between the county's residents.



PEOPLE

Community energy is a grassroots, people-centred movement for change. The success of Low Carbon Hub is due to the phenomenal support of individuals and organisations. Everyone can play a part in making the shift to a sustainable energy future. Those who support our work include:

Our members



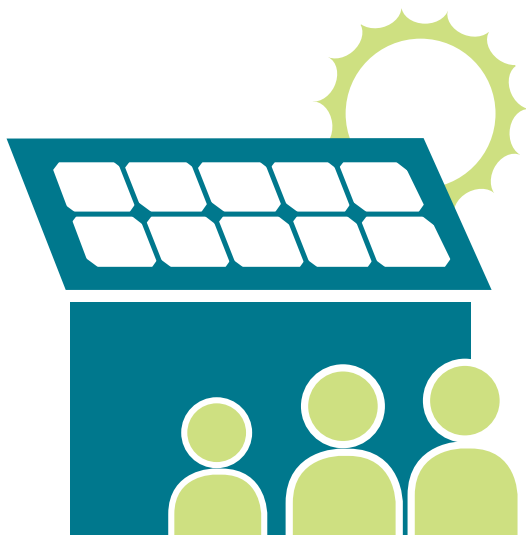
1,770 INVESTOR MEMBERS  **313**

Who help finance the upfront costs of our projects and whose investments bring energy into community ownership.



38 COMMUNITY SHAREHOLDERS  **5**

Low carbon community groups who share our aims and have a stake in us.



Our partners

40 **HOST ORGANISATIONS** 

The schools, businesses, and community organisations that host our energy projects.



31

SCHOOLS 



6

BUSINESSES 



3

COMMUNITY ORGANISATIONS 

Our ecosystem

The individuals and organisations who collaborate with us to deliver innovative projects and services, share our stories, and follow our progress.



187 

ACTIVE PARTNERS



1,979 

NEWSLETTER RECIPIENTS



7,063 

LOW CARBON HUB SOCIAL MEDIA FOLLOWERS



4,484

PROGRAMME SOCIAL MEDIA FOLLOWERS

Our growing ecosystem reflects the importance of collaboration with individuals, groups, and organisations across our work. Expansion of our renewables portfolio is only possible due to our investor members and host organisations. Our energy efficiency programmes for households, organisations, and schools are all delivered in partnership, and we are proud to be part of Project LEO, a collaboration of ten organisations working together to accelerate the transition to a net zero energy system.



PROSPERITY

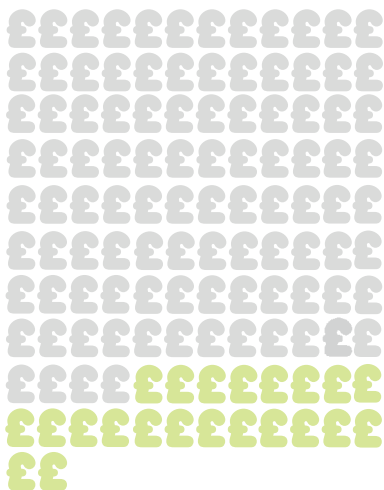
By pooling energy, enthusiasm, knowledge, and expertise, our projects create collective wealth, and keeps more of the money we spend on energy in the local economy.

The benefits of our installations are then shared:

- 1 Investors get a **return on their investment** for helping fund the upfront costs of our projects.
- 2 The host organisations – schools, businesses, and organisations – get **discounted electricity** and a cost-effective way to reduce their carbon footprint.
- 3 Low Carbon Hub has a **sustainable income stream** to support further local action to tackle the global issue of climate change through grants and practical help.

Total investment in the Low Carbon Hub:

£10,193,174



£1,837,610
NET
INCREASE
2021/22

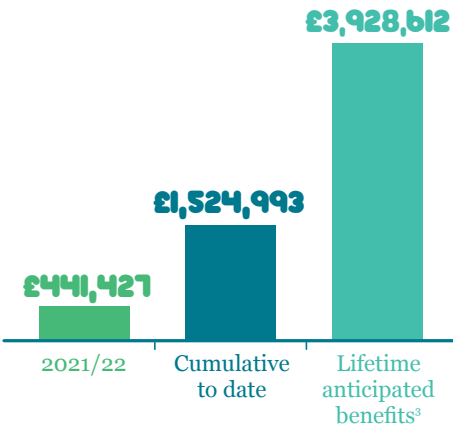


Distribution of benefits

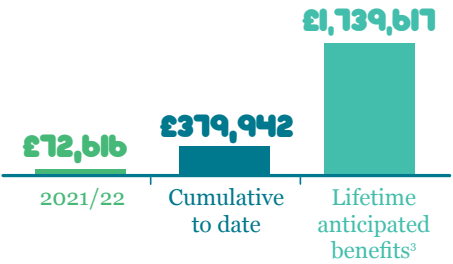
We report on the total benefits that our portfolio of installations is projected to deliver over its lifetime, as well as actual benefits achieved to date.

The Low Carbon Hub IPS Limited’s portfolio of commissioned renewable energy installations are anticipated to deliver:

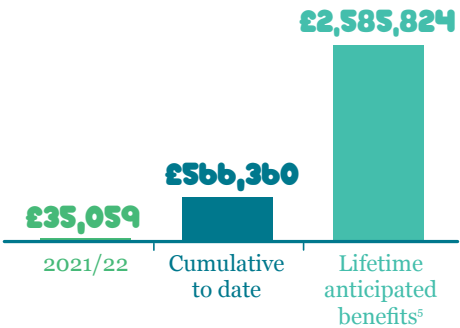
INTEREST TO INVESTORS



SAVINGS ON ELECTRICITY BILLS BY HOSTS



COMMUNITY BENEFIT INCOME*



⁴ Nominal values modelled over a 20-year lifetime and based on projects commissioned by financial year end.

⁵ The community benefit income figures reported only reflects spend directly funded by IPS surpluses. It excludes any expenditure funded by CIC surpluses or external sources.

Delivering community benefit

2021/22

£2,975,613

We use 100% of the surplus from the Low Carbon Hub IPS Limited, along with grants, donations, and other sources of funding, to support carbon cutting activity in Oxfordshire and beyond.

A full financial report of our community benefit activity can be found in the Low Carbon Hub CIC and IPS Annual Reports on our website. On pages 14-21 we highlight the impact of our partnership programmes.

This year, our community benefit work has resulted in:



71 energy audits and bespoke support for



56
businesses



15
community
buildings



149 hours of Helpdesk support



131 individuals and organisations
received advice and support



Financial support:



23
community
grants



10
small business
energy efficiency
grants



3
small business
innovation
grants

Our Community Benefit Programme

LOCAL ENERGY PROGRAMME – £2,932,632

Our Local Energy Programme has two key themes. First, we provide advice, and practical and financial support, to encourage the flourishing of community energy in Oxfordshire and beyond. Secondly, we support innovation, either through undertaking research and pilots ourselves, or funding the work of others to help explore new business models for community energy.

£4,702	Helpdesk service supporting further community energy projects
£682	Next Generation funding to support new community energy projects nationally
£10,746	Community building energy audit grants scheme
£101,570	OxFutures project supporting energy efficiency and innovation for small and medium enterprises (SMEs).
£1,520	Cosy Homes Oxfordshire (excluding staff costs)
£29	People's Power Station, an online interactive map showcasing Oxfordshire's efforts to reduce use of fossil fuels
£2,714,551	Project LEO (Local Energy Oxfordshire) smart-grid trials (including communications support to the project)
£67,006	Energy Solutions Oxfordshire supporting the take up of energy efficiency amongst SMEs
£31,825	Community Renewal Fund delivery

COMMUNITY BENEFIT MANAGEMENT – £2,970

We believe that investing in good management of our community benefit spend is important to ensure its effective use. This cost includes strategy development, monitoring, reporting, and internal project costs. In 2021/22 this cost was covered by Low Carbon Hub CIC.

COMMUNITY GRANTS PROGRAMME – £40,011

Large Grants Programme

£1,500

Low Carbon Oxford North-led consortia

Launch of 'Energy Saving Homes', a collaborative initiative to encourage households to undertake eco-renovation measures as a way of cutting energy costs and addressing climate change.

£3,000

Sustainable Wantage

For their 'Equipping Children for Cycling Mobility' project, supporting engagement with local primary schools and providing cycling equipment and support for bike training.

£5,000

Thame Green Living

To support the set-up of an electric car hire club.

Small Grants Programme

£471

Abingdon Carbon Cutters

To fund hi-vis jackets and backpack covers as prizes for local schools taking part in a competition on the benefits of cycling.

£500

Thame Green Living

To rent a designated car park space for the parking and charging of their electric car club vehicles.

£500

Low Carbon West Oxford

To develop a booklet, aimed at parents and teachers, offering guidance on talking to children about the climate crisis.

£500

Greener Henley

To carry out phase two of installing LED lights throughout the D:2 community centre and café.

£500 EACH

West Oxford Community Renewables and Osney Lock Hydro

To go towards landscaping of the site surrounding Osney Lock Hydro to improve accessibility and open the site up.

£500 EACH

Westmill Sustainable Energy Trust (WeSET), Westmill Wind Coop and Westmill Solar Coop

To create educational resources to support sixth form students in schools and colleges in Oxfordshire to develop their Extended Project Qualification (EPQ) with a focus on community-owned renewable energy and sustainability.

**£500
EACH**

Low Carbon Oxford North, Low Carbon Oxford South, Local Environment Action Florence Park, Oxford Friends of the Earth, Rose Hill and Iffley Low Carbon

Five community groups pooled their grants to help launch 'Energy Saving Homes', a collaboration to raise awareness of retrofitting homes to cut carbon emissions and tackle climate change.

Climate Change Grants

£2,000

Oxfordshire Treescape Project

A contribution towards the 'Our Land our Future' report which sets out the changes in Oxfordshire's land use that the project believes need to be achieved between now and 2050 if we are to reach net zero.

£1,000

MaidEnergy

A contribution towards MaidEnergy Thames Valley Athletics Centre installing a Ground Source Heat Pump.

£250

Oxford City Council

A contribution towards Oxford City Council's Zero Carbon Oxford partnership, working towards a plan for Oxford to become net zero.

£2,000

Rose Hill Smart and Fair Neighbourhood Trial (Project LEO)

Towards participant recruitment and engagement for the trial taking place as part of Project LEO (Local Energy Oxfordshire).

Renewable Generation Grants

£892

Green Transition Eynsham Area (GreenTEA)

£1,338

Low Carbon Oxford North

Management and reporting

£4,060

The administration of the grants scheme, creating case studies and sharing learning to inspire community action.



PERCEPTION

We are committed to developing a sustainable energy system that works for everyone. We aim to be a transparent and trusted partner, and to share knowledge and expertise openly. In April 2022 we conducted our sixth 'How are we doing?' survey to see how our members, partners, and supporters think we're doing and to learn how we can improve.

Percentage of respondents⁶ who...

...have **quite high or high trust** in Low Carbon Hub's expertise around local, renewable energy and low carbon

97%

... perceive Low Carbon Hub to be **quite or highly committed** to the creation of a low carbon, locally owned renewable energy system

97%

... report Low Carbon Hub had a **moderate or substantial** impact on their knowledge

84%

... report Low Carbon Hub has made them **more positive** about the potential of community-owned solutions to energy issues

78%

... report Low Carbon Hub has contributed to them taking **some or substantial action** on energy or environmental issues

76%

⁶ Based on 180 responses to the 'How are we doing?' Low Carbon Hub stakeholder survey, April 2022.

You said, we did...

We make every effort to address the suggestions that come up in our ‘how are we doing?’ survey. Here are just a few examples from the most recent survey.

I've invested in Ray Valley Solar but would love to know more...

We created a Ray Valley Solar launch brochure detailing the journey of the UK's largest community-owned solar park.

I'd like more information on energy efficiency...

We now have several energy efficiency programmes and we communicate key updates from these in our regular e-newsletters.

I've enjoyed the regular webinars on helpful topics...

We know our supporters enjoyed our lockdown webinars and so we are planning some more webinars for early 2023. Watch this space.

What people say about us and the support we give:

"I appreciate the innovative stance of Low Carbon Hub"

Anonymous feedback from survey

"Keep up the good work!"

Anonymous feedback from survey

"Thank you and the whole Energy Solutions team for your time and work on the report. It provided much insight and sparked new conversations around the office"

Energy Solutions Oxfordshire client

If you'd like to give us any feedback, drop us a line at **info@lowcarbonhub.org**.

OxFutures is a pioneering partnership, transforming Oxfordshire into a world-leading example of how to create a thriving zero carbon economy.

It is a £4.2m six-year project to boost low carbon economic development in Oxfordshire, supported by the European Regional Development Fund, which ends in March 2023. The work has been delivered by a collaborative partnership between Oxford City Council, the University of Oxford, Cherwell District Council, Bioregional, Oxford Brookes University and Low Carbon Hub, with only the latter two continuing in the last three years of the programme.

The team hit their target to identify 181 SMEs to receive fully funded energy assessments to, a full year ahead of schedule in March 2022. The programme is still in progress delivering the last few remaining site energy assessments and reports, and supporting businesses and communities awarded innovation grants with their final funding.



PLANET

In the 2021/22 financial year, OxFutures has delivered:



21

**ENERGY
AUDITS**



147

**ENERGY SAVING
RECOMMENDATIONS**



1,255,914

**KWH OF ENERGY
SAVINGS COULD BE
ACHIEVED**

262.93

**TONNES OF CO₂
COULD BE SAVED**



PROSPERITY

Financial support

OxFutures manages a grant programme to part-fund the installation of energy-saving measures and support innovation growth in the low carbon sector.

13 SMEs have received energy efficiency grants to implement their energy audit recommendations’.

£13,612 grant funding was awarded to SMEs implementing energy efficiency projects across the county.

£8,802 in grant funding was awarded to SMEs developing and creating innovation projects.



PEOPLE



1
PROJECT
PARTNER



1,155
TWITTER
FOLLOWERS

Small and medium enterprises we have supported



EWELME WATERCRESS BEDS

This nature reserve was awarded an OxFutures grant to support the installation of solar panels on their south-west facing roof.

Sims Solar completed the installation in just over one and a half days in March 2022; this meant that minimum disruption was felt by the site and operations could continue as normal.

The array consists of ten 375W panels and is projected to generate 2,804 kWh of electricity per year. The energy generated from the solar panels will help power their on-site water source heat pump, building into a wider, more resilient infrastructure for sustainability.



ELECTROGENIC

OxFutures provided the funding to support the commercialisation of ElectroGenic when it was a new start-up looking to prototype the development of retrofitting a classic car with an electric motor.

In 2018, they were awarded one of our grants to help develop four demonstration vehicles, including a VW split screen bus, a VW Beetle, a Rolls Royce Silver Shadow and a Chevrolet Greenbriar and launch their offer at the Classic Car Show. They have been growing ever since and ElectroGenic is now an experienced business in converting classic vehicles to 100% electric.

"The OxFutures grant enabled us to establish this whole business. It helped to fund our very first research and development, and then it helped us establish our very first premises as well as our marketing capability by helping us to develop vehicles that we could use for demonstrations. It has been fundamental to the establishment of the entire business which is now a significant employer in Oxfordshire."

Steve Drummond, Founder and Director of ElectroGenic



“The collaborative work undertaken during the OxFutures programme has led to three major Low Carbon Hub programmes: Project LEO, Cosy Homes Oxfordshire, and Energy Solutions Oxfordshire (ESOx). The OxFutures project has been invaluable in the creation and development of these new initiatives.”

Alison Grunewald

Business Relationship Manager for Low Carbon Hub

The reach of OxFutures

So much has been achieved through the project. One of the most important things about OxFutures has been the pathway it has opened up for more Low Carbon Hub programmes.



Project LEO, a £40 m project trialling local energy solutions to accelerate the transition to a zero carbon energy system.



Cosy Homes Oxfordshire, a home retrofit service to improve energy efficiency in homes, reducing carbon emissions and improving comfort.



Energy Solutions Oxfordshire, the complete energy efficiency service helping organisations lower their energy use while saving time and money.

PROGRAMME SPOTLIGHT:

ENERGY SOLUTIONS OXFORDSHIRE



OXFORD
BROOKES
UNIVERSITY

We know that businesses and organisations are keen to undertake energy efficiency improvements in their buildings, but struggle to find time, resources and upfront capital to make it happen.

From insulation and draught-proofing to installing renewables and heat pumps - to improving staff awareness of energy usage, our team are here to enable energy efficiency improvements.

Energy Solutions Oxfordshire (ESOx) is a partnership between Low Carbon Hub and the Environmental Information Exchange (EiE) at Oxford Brookes University. Our team is made up of energy experts with decades of experience working with Oxfordshire's businesses to deliver tailored energy improvements for their premises.

The ESOx partnership has received government funding from the Community Renewal Fund, and through the Department for Business, Energy and Industrial Strategy.

"[The energy audit] is excellent. There is some really good, practical advice and a lot we had not considered. The layout is great, succinct, and effective, and will be a good roadmap for us to make the recommended changes (including processes)."

Jake Backus,
Common Ground

We are a not-for-profit service, delivered by partners driven by the same common goal: to make it simple for local businesses to make energy improvements, decarbonise Oxfordshire's building stock and accelerate the clean energy transition.

Planet

16 Organisations supported

169.96
tonnes of
CO₂e savings
recommended

Prosperity

£746,160 of investment recommended

People

6,337 Website visits

267 Social Media followers

71 Newsletter subscribers

These figures relate to the 2021-2022 financial year

PROGRAMME SPOTLIGHT:

Smart and Fair Neighbourhood Trials (Project LEO)

Working with communities across Oxfordshire to demonstrate how flexibility services can sit at the heart of a smarter, fairer, low carbon, locally balanced energy system.

These trials form part of Project LEO (Local Energy Oxfordshire), one of the UK's most ambitious, wide-ranging and innovative energy trials, seeking to accelerate the transition to a zero carbon energy system. Find out more: www.project-leo.co.uk



Osney Supercharge

Working with residents to install solar PV and batteries so that they can generate and store their own electricity. By sharing their real time energy data with us we can learn how this reduces demand on the local distribution network.

Rose Hill

The 'Solar Saver' trial is working with tenants to explore how a time of use tariff can help them benefit from solar PVs installed by their landlord on the roof of their apartment block.

Springfield Meadows

Optimising the use of large solar PV arrays on multiple domestic rooftops – to learn how a group of households can generate as much electricity locally as possible without the need for costly network reinforcements.

Westmill

Exploring how the existing solar and onshore wind farms at Westmill, along with potential battery storage, could enable participation in local flexibility markets.

Eynsham Smart and Fair Futures

Helping the community to work with their local authority to put a Local Area Energy Plan in place – identifying what needs to happen in their area to support the transition to a zero carbon energy system and have a say in its local governance.

Deddington and Duns Tew

Looking at how the installation of heat pumps, alongside smart monitoring and control systems, can enable residents to deliver flexibility and help support the decarbonisation of rural communities.

PROGRAMME SPOTLIGHT:



Cosy Homes Oxfordshire is a one-stop retrofit service, making homes in Oxfordshire more comfortable, greener and cheaper to run.

Nearly a thousand homeowners across Oxfordshire have registered with our energy efficiency service this year as we rise to meet the growing demand for home retrofit in the county. Many more have used our online Plan Builder tool, allowing residents with an Oxfordshire postcode to start their retrofit journey and find out what may be possible with their home.

The lessons we are learning both through building demand, engaging contractors and delivering work on-site is crucial if we are to build the market for home retrofit in the UK, and reduce the carbon impact of our homes - accounting for about 20% of UK carbon emissions.

The service is delivered in partnership with RetrofitWorks, a not-for-profit cooperative, who are delivering work on-site transforming homes. Many clients have now become case studies, opening their homes and experiences to help inspire others.

Planet

2,379 Plan Builder users

873 Homeowner registrations

122 Whole House Plans delivered

25 Retrofits completed or in progress

These figures relate to the 2021-2022 financial year

People

16,266
Website
visits

655
Newsletter
subscribers



12
Advocate
groups

1,291
Social media
followers



CASE STUDY

Eco-retrofit at an 1880s solid wall terrace

Cosy Homes completed an environmental retrofit for Lis and Sarah at their beautiful terrace home in East Oxford. They wanted to have a greener home with reduced carbon emissions, but also a space that would be more comfortable to live and work in.

Initially, the home had little to no insulation and was hard to keep warm, but following the guidance in their Whole House Plan, the home was transformed to make it as energy efficient as possible. The following measures were installed:

- **Traditional timber sash windows with double glazing**
- **Internal wall wood fibre insulation (IWI)**
- **Cavity Wall Insulation (CWI)**
- **Loft insulation** on the main roof with a controlled ventilation system
- **Flat roof insulation** on the rear extension
- **Underfloor heating and insulated floors**
- **Air source heat pump**
- **Solar PV array**

Impact

Cost savings: 59% saving on energy bills, from £923 to £385 per year*

Carbon emissions: 68% saving on carbon emissions. 3.29 tonnes of CO₂e emissions saved every year after retrofit – 4.80t to 1.51t*

*based on Whole House Plan estimates (2020)





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Low Carbon Hub, Holywell House, Osney Mead, Oxford OX2 0ES

The Low Carbon Hub is two organisations working together: The Low Carbon Hub IPS Limited (registration number: 31903R) and the Low Carbon Hub Community Interest Company (registration number: 7583663).

The Low Carbon Hub IPS Limited is a Registered Society that operates for the benefit of the community.

It generates income from the Feed-in Tariff and by selling renewable electricity. It aims to make a surplus that will enable the Low Carbon Hub IPS Limited and Low Carbon Hub CIC to lower carbon emissions across Oxfordshire by helping businesses, the public sector, and communities to develop renewable energy projects and reduce energy demand.

Both are registered in England and Wales and the registered address is
Holywell House, Osney Mead, Oxford OX2 0ES.

To the best of our knowledge, the information contained herein is accurate and reliable as of 31 August 2022.