



Social Impact Report 2023



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Our Guiding Principles

Ethos

- Community-focused
- Inclusive
- Collaborative

Impact

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



Welcome to our 2023 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.

2022/23 was an incredibly busy year, with:

- our portfolio of rooftop solar arrays growing by **745 kWp** installed capacity.
- **12.45 GWh** of renewable electricity generated
- Ray Valley Solar, the largest ground-mount solar-park in the UK, started generating with a total installed capacity of **19.2MW**
- over **£3.5 million** of community benefit activities carried out across Oxfordshire supporting individuals, communities and organisations and catalysing innovation
- **100** new active partners, reflecting our commitment to collaboration with individuals, groups, and organisations across our work.

This year, two of our programmes, OxFutures and Project Local Energy Oxfordshire, came to a close. You can read about their legacy in our programme spotlight pages.

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

Our new programme Action on Carbon and Energy in Schools is an energy efficiency support service that is out to help schools in Oxfordshire carry out energy saving measures.

We are delighted to announce the successful completion of Ray Valley Solar, the largest community-owned solar farm in the UK. In August 2022, Ray Valley Solar became operational, connecting to the national electricity grid and commencing the generation of clean energy.

During the winter of 2022/23, the energy crisis prompted us to intensify our efforts to address fuel poverty. We trained and supported a team of volunteer energy champions and advisors from our community groups to deliver energy advice within their communities.

Thank you to our members and partners, through your collective dedication and support we have been able to push the boundaries of innovation and sustainability, ensuring a brighter and greener future for Oxfordshire and beyond.



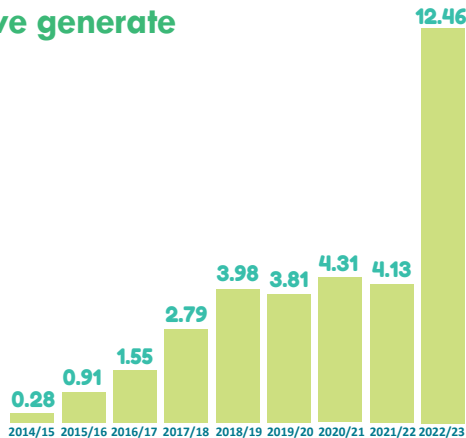
Planet

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

As new projects have come online this year, most notably Ray Valley Solar and large-scale rooftop solar installations, our generation has substantially increased. In addition, our battery storage capacity has more than doubled.

The electricity we generate

All figures are GWh.



In 2022/23 we:



generated
12.45
GWh across all
our live projects



SAVED
2,631
tonnes
of CO₂¹



8
new projects
installed

Our total portfolio stands at:



55  **8**

**renewable energy
installations**



23.9  **20**

**MW installed
capacity**



122  **72**

**kW of
battery storage**

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



power

10,240  **8,674**

typical homes²



provide

1,867  **1,581**

**people's share of
Oxfordshire's direct
energy needs³**

This year, we completed Ray Valley Solar which has the potential to annually:



generate

19

**GWh of clean
green energy**



power over

6,000

homes



**Change from
2021/22**

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



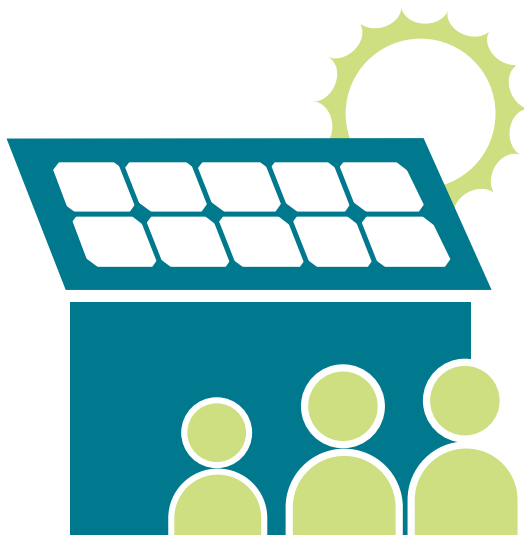
1,758 Investor Members  12

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



41 Community Shareholders  3

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



Our partners

45 Host organisations

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



31

Schools



8

Businesses



2

**Community
organisations**



4

Households

Our ecosystem

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



287  100

**Active
partners**



2,074  95

**Newsletter
recipients**



7,843  780

**Low Carbon Hub
social media
followers**



5,529

**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

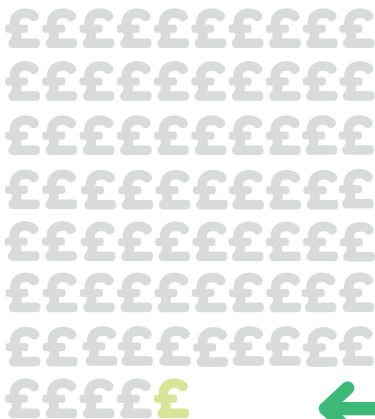
By pooling energy, enthusiasm, knowledge, and expertise, our projects create collective wealth, and keeps more of the money we spend on energy in the local economy.

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:

£10,047,972



£145,202

**capital returned to
investors**

2022/23

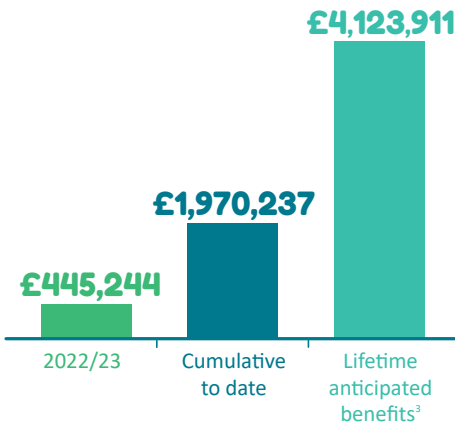


Distribution of benefits

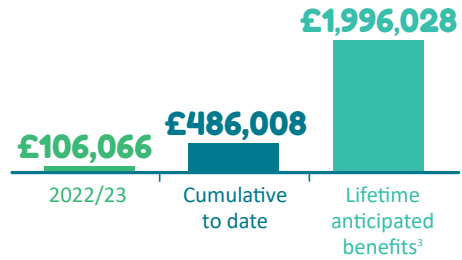
We report on the total benefits that our portfolio of installations is projected to deliver over its lifetime, as well as actual benefits achieved to date.

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

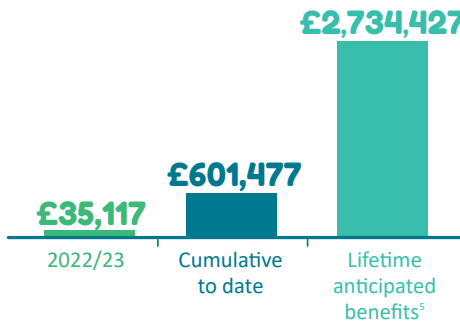
Interest to investors



Savings on electricity bills by hosts



Community benefit income⁴



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

2022/23

£4,215,380

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 14-23 we highlight the impact of our partnership programmes.

This year, our community benefit work has resulted in:



66 energy assessments and bespoke support for



47
businesses



19
community
buildings



10
schools



224 hours of Helpdesk support



103 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 - £4,171,734

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.

£6,381	Helpdesk service supporting further community energy projects
£12,307	Energy Advice Programme
£13,929	Community building energy audit grants scheme
£107,923	OxFutures project supporting energy efficiency and innovation for small and medium enterprises (SMEs).
£481	Cosy Homes Oxfordshire (excluding staff costs)
£19,106	Action on Carbon and Energy for Schools (ACES) Programme
£3,962,020	Project LEO (Local Energy Oxfordshire) smart-grid trials (including communications support to the project)
£49,588	Energy Solutions Oxfordshire programme and Community Renewal Fund delivery supporting the take-up of energy efficiency amongst SMEs

Community benefit management - £3,267

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 2022/23 this cost was covered by Low Carbon Hub CIC.

Community Grants Programme - £40,279

Large Grants Programme

- £5,000** **Low Carbon North Oxford and Communities for Zero Carbon Oxford**
To fund 'Energy Saving Homes 2023', a collaborative initiative to encourage households to undertake eco-renovation measures as a way of cutting energy costs and addressing climate change.
- £5,000** **Low Carbon West Oxford**
To purchase an electric cargo bike that will be available to hire by the West Oxford community.
- £5,000** **Sustainable Harwell**
To fund the installation of solar PV and batteries at Harwell Village Hall & The Harwellian Sports & Social Club.
- £4,541** **Sustainable Wantage**
To support the strategic promotion of active travel in Wantage.
- £2,774** **Thame Green Living**
For their 'Cosy Thame Thermal Imaging Project', tackling the cost-of-living crisis and the energy price rises by offering thermal imaging to householders in their community.

Small Grants Programme

- £500** **Low Carbon Marston**
To fund community outreach and energy advice.
- £500** **Low Carbon Oxford North**
To promote active travel and safe routes to schools, to reduce car traffic.
- £500** **Sustainable Kirtlington**
To fund the installation of an EV charging point at Kirtlington Village Hall.
- £500** **Sustainable Wanage**
To fund tools and equipment to support their Draughtbusting service.

Climate Change Grants Programme

£2,500

Low Carbon Hub CIC's Energy Advice Programme

A contribution towards the set up and delivery of an Energy Advice Programme which was set up in response to the energy crisis. The scheme provides volunteer energy champions from Oxfordshire Low Carbon Community Groups with an 'energy advice stall in a box' plus training to enable them to offer energy advice within their communities.

Renewable Generation Grants

£696

Green Transition Eynsham Area (GreenTEA)

Our donation from the income generated from Low Carbon Hub solar PV installations in Eynsham was used to support local initiatives related to sustainability and climate awareness, including:

- A Great Big Green Week 'Greta Big Energy Saver' event, which featured information, advice, and a panel discussion on the future of the energy system.
- Providing funding for climate-related books for local schools.

£8,321

Low Carbon Oxford North (LCON)

Our donation funds a part-time coordinator who is responsible for LCON's communications, providing analysis and evaluation to the board for monitoring LCON's impact, and promoting LCON's projects and partnerships such as Energy Saving Homes, Housewarming, Oxon4Buses, and Climate Cafes, as well as raise awareness about climate change issues, sustainable transport plans, and local nature-based initiatives in Oxford and beyond.

Management and reporting

£4,461

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 seventh ‘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

95%

... 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

82%

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

80%

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.

The portal for investments could be more user-friendly. Otherwise, all is great. Thanks for your hard work...

We are in the process of exploring ways in which to improve our investor portal to enhance its functionality and user experience.

[I'd like to see] more information and support for local community energy plans...

We agree! Communities have a key role to play and we look forward to developing our Community Action Plan for Zero Carbon Energy (CAPZero) approach.

What people say about us and the support we give:

I'm always impressed with the array of passionate, knowledgeable, and effective staff that work at Low Carbon Hub"

Anonymous feedback from survey

"Low Carbon Hub takes care of all the installation headaches and all the knowledge that you need to choose the right scheme and get it installed properly. We like the fact that it also generates income for the Low Carbon Hub which can then fund more community schemes."

Catherine Rohill, Norbar Torque Tools

"I'm impressed at the way you already keep thinking of new possible forms of service and support"

Anonymous feedback from survey

"LCH makes things happen and so sometimes hits problems or barriers - you should know that you have the wholehearted support of community and investor members in dealing with those"

Anonymous feedback from survey

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

OxFutures was a pioneering partnership which sparked growth in Oxfordshire's low-carbon economy, uniting six partners to drive innovative solutions for reaching net zero.

This £4.2m, six-year project to boost low carbon economic development in Oxfordshire, funded by the European Regional Development Fund, concluded in March 2023. During this time the programme delivered 182 building energy assessments to organisations across Oxfordshire with impartial low carbon recommendations. The advice identified an average 31,000 kWh pa of potential energy savings per organisation, which equates to a 19% reduction in energy bills a year.

A third of these organisations applied for our follow-up implementation funding (£1,000 to £10,000 grants) to make changes to their buildings. The phenomenal teamwork and collaborative spirit that OxFutures partners developed during the project built trust and understanding. This led to a series of successful bids for much larger-scale funding which leveraged the £42m Project LEO and two new retrofit services, Cosy Homes Oxfordshire and Energy Solutions Oxfordshire. The project also spun out Oxfordshire Greentech, the business network supporting growth of the low-carbon sector in Oxfordshire.



People

Over the project's lifetime, OxFutures had:



6

**Project
partners**



1,155

twitter followers



PROSPERITY

Financial support

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

52 SMEs have received energy efficiency grants to implement their energy assessment recommendations’.

£165,056 grant funding was awarded to SMEs implementing energy efficiency projects across the county.

£410,833 in grant funding was awarded to SMEs developing and creating innovation projects.



PLANET

Over the project's lifetime, OxFutures delivered:



182
Energy
assessments



1,114
Energy saving
recommendations



5,799,619
kWh of energy
savings could be
achieved
987
tonnes of CO₂
could be saved

These figures relate to the 2022-2023 financial year

Small and medium enterprises we have supported



The Rug Shed

OxFutures provided the funding to support the installation of LED lighting in The Rug Shed shopfront, with the aim of achieving lower electricity bills and better light output.

Making the switch to LEDs was an important energy saving decision as they use 30 to 80% less electricity and last 3 to 5 times longer than fluorescent and halogen lights. As the six window lights are constantly on, the illumination of the shopfront window is appealing for customers and helps highlight the products to passers-by.



Lady Sew and Sew

Lady Sew and Sew received an OxFutures grant to carry out energy efficiency measures including the installation of air source heat pumps, replacement of old extractor fans and skylight panels with insulated units, and energy-efficient LED lighting.

This has resulted in significant reduction in their energy consumption, with their new heating system being 300% more efficient than their old gas heating, and making their business resilient to energy price rises, with substantial financial savings of £1,000 over the span of six months.

“We are thrilled with the new LED lighting in our store. It has made a massive difference in the appearance of our displays and has given us the ability to take clearer photos of our stock. I think in the long run it will boost sales, as our customers get a better view of the rugs that they are purchasing. We are hoping to make even more improvements with our lighting in the future.”

Michelle Bowman, The Rug Shed.



“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:



Project LEO (Local Energy Oxfordshire) emerged as a pioneering initiative within the UK's energy landscape. Project LEO came to a close in March 2023, culminating in a final report which set out the findings and recommendations from the Project LEO Smart and Fair Neighbourhood trials.

Project LEO was running trials in Oxfordshire to understand how new technologies and services, particularly at the 'edge' of the electricity network – closest to the point where people are using energy – could benefit local people, communities, and the energy system.

This cross-sector collaborative project built a broad range of reliable evidence of the technological, market, and social conditions needed for a greener, more flexible and fair electricity system. It also learnt what changes need to be made within national and local policy to enable this to happen.

The Project LEO Final Report identified five key messages:



Project Partners:



Funded by:



Smart and Fair Neighbourhood Trials

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, 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.lowcarbonhub.org/p/programmes/project-leo/

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

3,202 Plan Builder users

158 Homeowner registrations

139 Whole House Plans delivered

47 Retrofits completed or in progress

These figures relate to the 2022-2023 financial year

People

xxx
Website
visits

791
Newsletter
subscribers



13
Advocate
groups

1,845
Social media
followers



RETROFITWORKS
BUILDING EFFICIENCY TOGETHER

CASE STUDY

“We’re wrapping our whole house in insulation”

Cosy Homes completed an environmental retrofit for Eleanor and Chris at their beautiful 1930s three-bed end-of-terrace in East Oxford with cavity walls and solar PV panels on the roof. The home is very typical of the area with features of an interwar semi-detached, such as bay windows and it is heated by a gas boiler.

With fuel bills on the rise, they invested in their property to make it cheaper to run in the future. The following measures were installed:

- External wall insulation
- Loft insulation and boarding, and insulated loft hatch
- High-performance triple-glazed doors and windows
- Demand controlled ventilation

Impact

Cost savings: 26% saving on energy bills, from £1,590 to £1,180 per year*

Carbon emissions: 27% savings on carbon emissions. 0.84 tonnes of CO₂e emissions saved every year after retrofit – 3.07t to 2.23t*

A boost from EPC rating C to B.

“We’ve been very pleased with Cosy Homes, actually because neither of us is technical, we’ve very much valued their advice.”

Eleanor, Cosy Homes Oxfordshire Client



*based on Whole House Plan estimates (2022)

PROGRAMME SPOTLIGHT:

ENERGY SOLUTIONS OXFORDSHIRE

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.



OXFORD
BROOKES
UNIVERSITY

"[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

58 Organisations supported

2,916.29
tonnes of
CO₂e savings recommended

Prosperity

£9,147,800 of investment recommended

People

7,406 Website visits

322 Social Media followers

126 Newsletter subscribers

These figures relate to the 2022-2023 financial year

PROGRAMME SPOTLIGHT:



Action on Carbon & Energy in Schools

Action on Carbon and Energy in Schools (ACES) is a new energy efficiency service that supports Oxfordshire schools in implementing measures to reduce carbon emissions, cut energy costs, and make buildings more comfortable and healthier for both staff and students.

We work closely with schools to develop tailored solutions that align with their needs. ACES provides fully funded energy assessments for schools, which help prioritise efficiency improvements. We also provide one-to-one support creating bespoke energy efficiency plans, offer funding to implement simple measures like boiler room insulation, and offer maintained schools a loan for large-scale installations.



OXFORD
BROOKES
UNIVERSITY

Furthermore, we have provided various online workshops that have been transformed into an 11-part video guide. This 'how-to' series covers essential energy efficiency concepts, offers quick-win actions, and delves into detailed strategies suitable for educational institutions.

Our partnership with EiE at Oxford Brookes University ensures the delivery of this service through both on-site and online interactions with schools. Funding for this initiative is generously provided by Oxfordshire County Council.

Funded by:  **OXFORDSHIRE
COUNTY COUNCIL**

Planet

450.53

tonnes of CO₂e
potential savings

10

energy
assessments

People

38

Schools received
energy efficiency
support

35

Social media
followers

26

Newsletter
subscribers

These figures relate to the 2022-2023 financial year



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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.