Creating energy we can all feel good about

Low Carbon Hub Joint AGM
Monday 7 October 2019, Oxford Town Hall, Oxford
### AGENDA

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Year in reflection

Dr Barbara Hammond MBE
CEO
The electricity we generate

We’ve been increasing the amount of clean, green electricity we generate every year.

All figures are GWh.
Each year, our 43 renewable energy projects have the potential to...

- **Generate**: 4.4 GWh green electricity
- **Save**: 1,343 tonnes of CO₂
- **Power**: 1,405 typical homes
- **Provide**: 274 people’s share of Oxfordshire’s direct energy needs

Change from 2017/18
Sandford hydro

- First full year of operation
- Modifications made to the screws and to our operating license with Environment Agency → 20% increase in average annual generation
- Actual generation for 2018/19 lower than expected due to dry summer and autumn and learning about our operating limit
Launch of our Community Energy

1,036 INVESTOR MEMBERS
Who help finance the upfront costs of our projects and whose investments bring energy into community ownership.

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

(1 due to ONCORE merge)
37 HOST ORGANISATIONS  
The schools, businesses and community organisations that host our energy projects.

29 SCHOOLS  
5 BUSINESSES  
3 COMMUNITY ORGANISATIONS

“It’s helped us to save money on our energy bills, but also the students in our school have learnt more about the environment now that the solar panels are installed.”

Jason, teacher, Low Carbon Hub Solar School
PEOPLE

114  +25  ACTIVE PARTNERS
462  +67  FACEBOOK FOLLOWERS
3,159 +374 TWITTER FOLLOWERS
1,217 -1,670 NEWSLETTER RECIPIENTS
PROSPERITY

INTEREST TO INVESTORS

- £231,926 (2018/19)
- £438,353 (Cumulative to date)
- £3,850,916 (Lifetime anticipated benefits)

SAVINGS ON ELECTRICITY BILLS BY HOSTS

- £60,092 (2018/19)
- £174,480 (Cumulative to date)
- £1,683,135 (Lifetime anticipated benefits)

COMMUNITY BENEFIT INCOME

- £141,000 (2018/19)
- £397,626 (Cumulative to date)
- £2,565,428 (Lifetime anticipated benefits)
COMMUNITY BENEFIT & LEVERAGE

2018/19
£536,947

- 66 energy audits for:
  - 48 small businesses
  - 10 schools
  - 8 community organisations

- 296 hours of helpdesk support
  - Advice and support to 70 individuals and organisations

- 19 schools signed up for energy efficiency workshops
  - Through the Ashden LESS CO₂ school energy efficiency programme

Financial support:

- £17 community grants
- £14 small business energy efficiency grants
- £6 small business innovation grants
STEP CHANGE

Energy efficiency for business premises
ACCOUNTS

Luke Marion, Treasurer
LOW CARBON HUB IPS LIMITED
Turnover grew 48% this year and reached £733k.

In a going average year, installations expected to produce income of c.£850k.

Income from FIT and Electricity sales indexes with inflation.
BUILDING OUR SCALE – ASSET BASE

- Fixed asset value reduced by £169k this year (cost £7,881k, depreciation to date £865k)

- 2 new installations completed on schools and 3 mid-life PV arrays in transferred from ONCORE.

- Sandford asset cost reduced by £56k following successful resolution of outstanding construction contract items.
As at year end – total £8.0m capital

- Increased by £0.4m from PY
- Additional £1.5m share equity raised from Community Energy Fund
- £0.2m equity added from ONCORE transfer of engagements
- £1.3m medium term debt repaid
- Charity bank long term debt reduced by £0.1m in year, in accordance with facility terms

How is the IPS funded?

- Equity share capital £5.9m
- Long term debt finance £1.9m
- Medium term debt finance £0.2m
- Oxford City Council fish pass loan £0.1m
OUR FUNDING POLICY

• Aim over time to eliminate all debt (other than Charity Bank debt in Sandford Hydro)
• New debt or bonds if required should be at less than 5%
• The debt:equity ratio should not be more than 50:50
• Operating surplus increased 6% this year to £375k

• In a going average year installations expected to produce cash surpluses of c.£570k

• Surpluses used to pay interest to debt providers and investors and to fund community benefit

• We record accounting losses due to depreciation on our installations – this is based on the accounting principle of businesses needing to replace assets
THE LOW CARBON HUB CIC
How is the CIC funded?

Project management fees for IPS projects
O&M fees for IPS projects
Community benefit donations from IPS surpluses
Other grants and project related funding

Staff, office and project delivery costs (e.g. consultants)
Community benefit helpdesk & grants
CIC Financial Results 2018/19

- **Turnover**: £717k (Up 104%)
  - £304k IPS project related, of which £65k deferred to 2019/20 (PY £236k with £20k deferred)
  - £308k OxFutures ERDF income (PY £123k)
  - £140k other grants (PY £5k)

- **Costs**: £704k (Up 98%)
  - Community benefit funding £537k (up from £199k in PY)
    - OxFutures - £341k
    - Community grants - £39k
    - BEIS retrofit ‘Cosy Homes’ - £115k

- **Profit**: £13k
  - PY loss (£3k)
  - Retained profit funds £137k at year end
Community Benefit

Nina Alphey
Communities Director
2018/19 donation was **£141,000**

Used to support low carbon community energy activity that:

- cuts Oxfordshire’s carbon footprint
- contributes to the creation of a decentralised and locally owned renewable energy system.
COMMUNITY BENEFIT SPEND

Community grant programme - £38,788

Local energy programme - £495,259
  • Helpdesk service - £11,186
  • Next generation funding - £13,347
  • Community building grant audit scheme - £4,970
  • LESS CO2 school energy efficiency programme - £8,551
  • OxFutures project to support SMEs - £341,193
  • BEIS retrofit ‘Cosy Homes Oxfordshire’ - £115,461
  • People’s Power Station - £550

Community benefit management - £2,900

2018/19
£536,947
Pre-AGM event:

Energy policy & housing in Oxfordshire
**COMMUNITY GRANTS PROGRAMME**

Sustainable Kirtlington - funding for a feasibility study on installing solar panels on village hall and to support the installation of a battery for the Kirtlington Village Hall Clean energy project.

Low Carbon West Oxford, Rose Hill & Iffley Low Carbon, Local Environment Action Florence Park received a grant to support **Our Kids Climate Action Network** supporting children to take action and understand climate change.
EcoSync are aiming, through innovative technology, to reduce the energy consumption and carbon footprint of buildings by 40%.
LOOKING AHEAD

NEXT GRANT DEADLINES:

Small grants: now apply all year round

Large grants deadlines:
• Outline proposals: 16 Dec 2019
• Detailed applications: 13 Feb 2020

COMMUNITIES DIRECTOR

Would you like to join the Board of the Low Carbon Hub CIC?

This role is up for re-election next year. If you are a member of a CIC group you can stand.

Contact Nina or Cathy to find out more.
Annual General Meeting of Low Carbon Hub IPS Limited

Annual General Meeting of Low Carbon Hub CIC
The purpose of these special resolutions is to:

- Highlight our charitable purpose in the Rules
- Allow children under 16 to own shares
- Allow people to leave shares to the Low Carbon Hub CIC in their wills
- Remove the £10 m borrowing limit
The purpose of these special resolutions is to:

- Change the article to mirror the changes made in the IPS charitable status
- Approve the extension of the Communities Director from 2 to 3 years
Resolution 1: to approve the minutes for 2018/19
Resolution 2: to approve the accounts and the auditor’s report
Resolution 3: to approve the special resolution to change the Rules
Resolution 4: to approve Critchleys as auditors for the coming year
Resolution 5: to re-elect Dr Barbara Hammond as Director
Resolution 6: to re-elect Adriano Figueriedo as Director
Resolution 1: to approve the minutes for 2018/19

Resolution 2: to approve the special resolution for the changes of articles.

Resolution 3: to approve Critchleys as auditors for the coming year.
Looking ahead

Adriano Figueiredo
Innovation Director
Zero Carbon
Zero Carbon

Future Energy Scenarios

Reaching net zero carbon emissions by 2050 is achievable. However, this requires immediate action across all key technologies and policy areas.

Pathways Description

### Community Renewables pathway

- By 2050, 50 per cent of total generation capacity is decentralised i.e. not transmission connected.
- Over 60 per cent uptake of low-carbon heat solutions in homes by 2050, including electric heat pumps, hybrid heat pumps, district heat and boilers.
- High appliance and thermal efficiency in new and existing homes have supported a 25 per cent drop in residential heat demand.
- Electric vehicles are the most popular form of transport by 2050.
- Over 75 per cent of electric vehicle owners engage in smart vehicle charging (e.g. off-peak) by 2050.
- Green gas is 45 per cent of the total natural gas supply by 2050.
- Multiple onshore renewable energy schemes support other energy production (e.g., hydrogen from electrolysis for commercial vehicles).
- Decentralised wind generation grows to over four times 2018 levels.
- Lowest total annual energy demand across all sectors by 2050, approximately two thirds of 2018 levels.

### Two Degrees pathway

- Strong growth in renewables and other centralised technologies, with offshore wind generation growing to over six times 2018 levels.
- Multiple onshore renewable energy schemes support other energy production (e.g., hydrogen from electrolysis for commercial vehicles).
- Regional roll-out of hydrogen for heat, with over a third of homes heated by hydrogen by 2050.
- Decentralised wind generation grows to over four times 2018 levels.
- Lowest total annual energy demand across all sectors by 2050, approximately two thirds of 2018 levels.
- Electric vehicles are the most popular form of transport by 2050.
- Carbon capture, usage and storage is commercialised, having developed at scale from 2030.
- Public vehicle charging points become more popular, leading to less smart vehicle charging (e.g., peak avoidance).
- 30-40% annual hydrogen demand by 2050, mostly hydrogen from electrolysis supported by carbon capture, usage and storage.
- Over 1m hydrogen or natural gas vehicles by 2050.
Energy Efficiency

Community Renewables

Two Degrees
Energy Efficiency

Homes in 2050 will need to use at least one third less energy for heating than today.

By 2050², up to 85% of homes need to be very thermally efficient (at EPC class C or higher).
Energy Efficiency

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Technology and Innovation

Carbon emissions from the electricity, transport and heat sectors by scenario

2017
- 73 Mt CO\textsubscript{2}e
- 117 Mt CO\textsubscript{2}e
- 190 Mt CO\textsubscript{2}e

2050
- 34.5 Mt CO\textsubscript{2}e
- 26.3 Mt CO\textsubscript{2}e
- 16.9 Mt CO\textsubscript{2}e

Distribution connected

Transmission connected

Micro connected

Over 75% of EVs could be using smart charging by 2050.

Well over 2.6 trillion data points will be collected in 2050 to understand where EVs are charging on the electricity system.

Over seven million hybrid heat pumps could be installed by 2050 with gas providing continued flexibility.
Technology and Innovation
Develop new local flexibility and energy markets which maximise asset utilisation and enable innovative business models for investment in a low-carbon energy future.
Project LEO is one of the most ambitious, wide-ranging, innovative, and holistic smart grid trials ever conducted in the UK.
Community Energy
Creating energy we can all feel good about
QUESTIONS?
THANK YOU!

CHANGE STARTS WITH PEOPLE — IS THERE ENOUGH IN YOUR NETWORK?