Sustainable Hockerton Limited Director's Report

View of turbine with student group visiting.



Directors Report for year-end 31st March 2024, including updates to 31st August 2024 Presented at the AGM on the 21st September 2024 Version 0.0

Date issued: 21st September 2024

Picture:

Simon Tilley in conjunction with other directors Authors:

Sustainable Hockerton Limited Watershed, Gables Drive Hockerton Southwell

NG25 0QU

Registered company number: 30660 R VAT registration number: 974 4755 73

W: www.sustainablehockerton.org e: enquiries@sutainablehockerton.org

t: 01636 816902



© Sustainable Hockerton Limited, 2024

Table of contents

1. Intr	oduction	3
	ectors and Members	
	/elopments	
	rironmental Report	
	Energy and Carbon Dioxide	
	ial Report	
5.1.	Background	
5.2.	Support for Village	
5.3.	Presentations/Talks/Media/Outreach/Research	10
5.4.	Employment	
6. Fina	ancial Report	12
6.1.	Background	12
6.2.	Year's Summary	12
6.3.	Accounting period	
6.4.	Allocation of Monies	13
6.5.	Interest Payments and distribution of Surplus	13
6.6.	Investments in other organisations	13
6.7.	Income, Expenditure and financial position	14
6.8.	Financial Backing and Contracts	15
6.9.	Income Predictions	16
6.10.	Bankers and Insurers	17
7. Tec	hnical updatehnical update	18
7.1.	Operation Reliability	18

1. Introduction

Sustainable Hockerton Limited (SHL) has had another successful year with good income made due to the combination of electricity sales and Feed in Tariff. The turbine operated reliably. The Photovoltaic (PV) arrays continued to operate well too, Hockerwood eggs PV was improved with bird protection to limit foul play... and a small portable system installed at Beermats Brewery in Winkburn.

We have received income from the sale of electricity, certificates and the Feed in Tariff (FIT) via Good Energy Ltd for the turbine and Hockerwood Eggs PV. The PV systems at Storm Saver and the Grange receive their FIT tariff from Ecotricity.

A small portable PV system was installed at Beermats Brewery in Winkburn. A Community Energy Fund grant was obtained to assess the feasibility of an Agrivoltaic installation near the wind turbine.

In this financial year some surplus was again retained, interest paid out to members and money allocated to village sustainability.

Hockerton Housing Project Trading limited has continued to manage the day to day running of the Society, turbine and PV system.

This report sets out the latest developments and environmental, social and economic impacts of the Society. It covers the period from 1st April 2023 to the 31st March 2024 with some updates to the end of August 2024.

2. Directors and Members

Directors at Financial Year End:

Bryan William Norris (Chair)

Simon Robert Tilley, (Secretary and Treasurer)

Geeta Lakshmi

Edward Compton

Jenny Piercy

Last year two directors stood down, Geeta Lakshmi and Jenny, both stood for reelection and were re-elected at the AGM.

This year Simon Tilley and Brian Norris will stand down at the AGM and both will stand for re-election.

Membership

There was one change of membership.

Members at beginning of year 77

Members ceased during year 0

Members admitted during year 1

Members at end of year 78

Members joining

Alessandro Pucacco

Members leaving

None

3. Developments

A small 4.8kW AC portable PV system was installed at Beermats Brewery in Winkburn. The panels sit on a trailer which can be moved after the security devices are taken off. This portable system was used as the landlord would not agree to any formal documentation to use the roof. Its flexibility means we can remove it easily if necessary. The tenants, Beermats Brewery are very pleased with the out put and would like to expand the production. This can be achieved by installing a similar system on the other two available electrical phases.

A Community Energy Fund grant was obtained (£24 492) to assess the feasibility of an Agrivoltaic installation (Energy and crop growing in the same location.) near the wind turbine. This is likely to be a 50kW AC system with 67kW DC supply made up using two 25kW inverters. This has become possible because of changes to the way the national grid allow extra capacity to be connected. For this connection point the grid will now allow 250kW peak output plus a 25kW capped output. This means that if the combined production of the 225kW wind turbine and 50 kWp PV array goes above 250 kW the second 25kW PV inverter will be turned off. This is not likely to affect energy production as it is very rarely very wind and full sun at the same time. The feasibility study is on going and should be complete by November 2024.

Work started on progressing the footpath/cycle path from Hockerton to Southwell.

4. Environmental Report

4.1. Energy and Carbon Dioxide

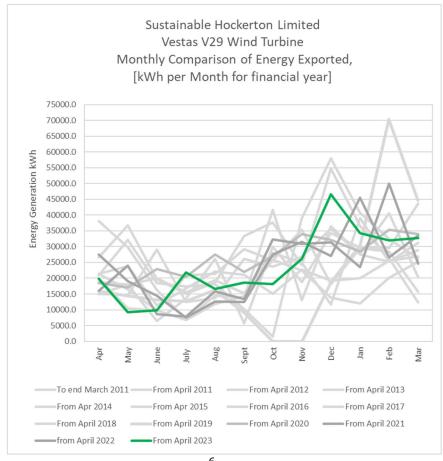
To assess the environmental benefit of the turbine and PV systems we can look at the electrical energy produced from the wind and sun and the Carbon Dioxide displaced from the grid.

Table 1 - Energy generation and Carbon Dioxide displaced

	This financial year, To end March 2024	Previous financial year
Energy produced Turbine [kWh]	285771	285234
Energy produced PV	78810	80324
[kWh] Displaced Carbon Dioxide Equivalent Total [tonnes]	75	76

NB Displaced carbon using data from: $\frac{\text{https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting\#conversion-factors-2016}{\text{0.193 kg CO}_{2}\text{e}} \text{ UK electrical generation 0.20705 2024, kg CO}_{2}\text{e}$

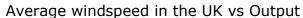
We can look at the wind energy generation per month.

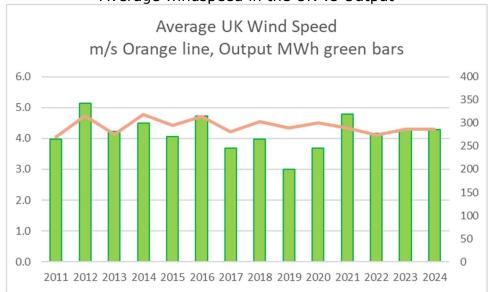


And we can look at the energy generation per year from the turbine.

The average production for all 13 years is 278412 kWh.







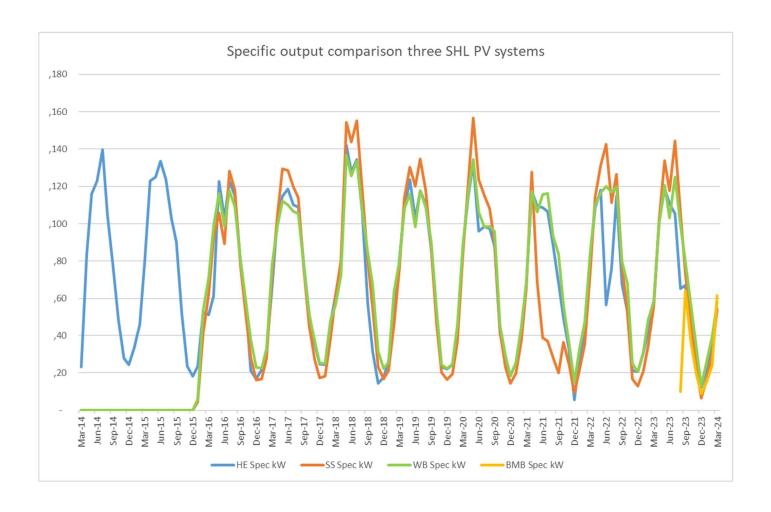
Average wind speed from https://www.gov.uk/government/statistical-data-sets/energy-trends- section-7-weather

PV generation:

There are multiple sites in operation so to make a fair comparison the specific output for each system is now given. Specific output here is the energy produced from 1 kW of the particular system across the year. So, for example a 50kW system can be viewed as 50 sets of a 1 kW system, so if in a year the 50kW system made 45000kWh of energy then each 1 kW makes 900kWh numerically calculated from 45 000 divided by 50.

Specific output from the PV installations below per year and by month. Showing full year data only, Beermats has only 7 months data so not shown in table:

Specific output in kWh per kW			
	Hockerwood Eggs	Stormsaver	Grange Centre Wellbeing
2014 15	905		
2015 16	919		
2016 17	821	824	877
2017 18	879	880	858
2018 19	870	970	953
2019 20	900	927	902
2020 21	848	918	903
2021 22	840	522	908
2022 23	765	897	915
2023 24	757	855	855



New inverter in West Shed at Hockerwood eggs needed protection from chickens. (Dip in blue line above shows the effect.) Addition of Beermats system orange line, this is consistent with the others.



5. Social Report

5.1. Background

Sustainable Hockerton has continued to engage the local community and others further afield.

Below we set out the work undertaken this year to keep the community and shareholders involved in our efforts to help develop Hockerton as a sustainable community, to share lessons with others, and our impact on local employment.

5.2. Support for Village

Support continued for community initiatives this year. See section 5.2 for financial details.

The small grant offer remains at £300 for each household or business in the parish per year towards environmental improvements such as electric bikes and insulated curtains or up to £500 for insulating their house eg loft insulation. We supported local people learning about sustainability by subsidising their attendance on Hockerton Housing Project's Sustainable Living Tours, 32 people attended.

The verge on the Hockerton to Southwell road has continued to be cut and more effort put into exploring the idea of a cycle/foot path.

The village spent £11 295 this year. See Financial Report below for details. Funds have been retained for use in more sustainable investment in the village as opportunities arise.

5.3. Presentations/Talks/Media/Outreach/Research

Presentations on SHL have been given by directors and members in the year. These include a Hockerton Housing Project's Master Class for students from Nottingham Trent University, Coventry University and elements of HHP Trading's Sustainable Living tour.

The website is now assessed using "plausible.io" tools and produces the following graph for the years page views by month:



5.4. Employment

Hockerton Housing Project has project-managed the running of the turbine. To achieve this approximately 40.8 days of work was required. This is all local labour and thus will help to support the local economy.

In addition, there has been the unpaid input from the directors attending meetings; there have been 3 directors' meetings.

6. Financial Report

The income from the turbine and PV systems continued with enough being made to increase our reserve. Expenses were mainly for management, interest payments and maintence of the wind turbine. The reserve is there either for potential repairs, investment in new capital items and/or savings for the potential repayment of shareholders. Some money was allocated towards village sustainability. A proportion of the village's allocation from previous years' still remains in the SHL bank account.

6.1. Background

The wind turbine's electrical generation was sold to Good Energy Limited and FiT received. At Hockerwood Eggs the PV array's electricity was sold to Hockerwood Eggs Ltd and the grid, income was also received from the FiT. We have two other PV installations receiving FiT at The Grange Centre and Stormsaver Ltd both in Hockerton and have a similar arrangement except they have a deemed export and not a metered export. The leases for both of these are still to be finalised. Good Energy and Ecotricity are the conduit for the various certificates of production eg REGOs and Feed in Tariff. There is a new PV system installed at Beermats Brewery Ltd in Winkburn of nearly 5kW. Income is solely from sales of energy to Beermats Brewery. The sale of electricity and the value of the certificates creates our income stream.

6.2. Year's Summary

For the year ending March 2024, our turnover was £152,472 and the surplus after tax was £42,483 (See note 3 of the Financial Statements). Interest was paid to members at 8% in June 2023 totalling £18,820. This is seen as an expense in the profit and loss account and is subtracted before the surplus is calculated. Expenses also included depreciation totalling £15,445 for the wind turbine and £5,055 for PV equipment.

In 2023 we allocated £30,820 (This year in June 2024, £31,414) to supporting sustainability in the village, this brought the allocation since inception to £121 397 (£152 881 to June 2023). The total amount spent by the end of March 2024 was £63,988 leaving £57 409 allocated to the village but still not spent and remaining in our account.

The fixed assets stood at £107,935. Net current assets were £411,152 of which cash at the bank and in hand £377,351.

6.3. Accounting period

The accounting period covered by the financial reports is from 1st April 2023 to 31st March 2024.

6.4. Allocation of Monies

Initially the Societies rules stated how the application of surplus was to be made and the invitation to invest outlined how revenue would ideally be spent. In 2016 new guidance was sought from members, following this the directors plan to save about one third of the turbines value to potentially repay investors after 15 to 20 years from the date of the turbines purchase. The other two thirds being targeted at investments in the form of generation equipment or other revenue generation from carbon reduction activities.

6.5. Interest Payments and distribution of Surplus

This year the directors will ask the members at the AGM in September 2024 to ratify the interest payment made to members in June 2024 of 8%. The process of ratification is out of sync with the accounts. This payment of 8% will be recorded in the accounts of the financial year 1st April 2024 to 31st March 2025. The accounts presented in the September 2024 AGM show the interest payment of 8% which was ratified at the 2023 AGM and related to the 22 - 23 financial year.

Directors will also ask for the ratification of the distribution of any surplus detailed in the accounts. Note that this surplus described as profit in the accounts differs from the amount the directors allocate to the village, as not all of the allocation will have been spent. The allocation last year was £30,820 and in June this year was £31,414.

6.6. Investments in other organisations

Our cash is held in two different banks and one building society: The Cooperative bank, Triodos Bank and the Mansfield Building Society. We have investments in the:

- Brighton Energy Coop,
- Bristol Energy Cooperative
- Schools Energy Cooperative
- Grimsby Community Energy

6.7. Income, Expenditure and financial position

Income and Expenditure Account, and Statement of Financial Position are taken from unaudited financial statements for the year end $31^{\rm st}$ March 2024.

Sustainable Hockerton Ltd Trading Profit and Loss Account For The Year Ended 31 March 2024

		2024		2023	
	£	£	£	£	
TURNOVER		50.010			
Electricity		58,312		80,167	
Certificates		94,160		85,443	
COST OF SALES		152,472		165,610	
Rental of site	8,968		4,742		
Meter rental	546		886		
Electricity usage	3,816		3,040		
Turbine maintenance	12,662		8,521		
		(25,992)		(17,189)	
GROSS PROFIT		126,480		148,421	
Administrative Expenses					
Village sustainability	11,295		7,063		
Insurance	3,229		3,639		
Accountancy fees	1,269		1,065		
Management fees	20,726		13,708		
Share interest	18,520		18,116		
Subscriptions	689		411		
Bank charges			30		
Charitable donations			325		
Depreciation of Solar Power Equipment	5,055		4,738		
Depreciation of Turbine and Safety Equipment	15,445	,	15,445		
Oth O		(76,228)		(64,540)	
Other Operating Income Other income - contributing to other operating income	2,544		1,723		
		2,544		1,723	
OPERATING PROFIT		52,796		85,604	
Other interest receivable and similar income					
Bank interest receivable	3,097		(196)		
		3,097		(196)	
PROFIT BEFORE TAXATION		55,893		85,408	
Tax on Profit					
Corporation tax charge	14,606		19,735		
Deferred taxation	(1,196)		2,028		
		(13,410)		(21,763)	
PROFIT AFTER TAXATION BEING PROFIT FOR THE FINANCIAL YEAR		42,483		63,645	

Sustainable Hockerton Ltd Balance Sheet As At 31 March 2024

		202	4	2023	
	Notes	£	£	£	£
FIXED ASSETS					
Tangible Assets	4		72,935		87,551
Investments	5		35,000		25,000
		_		_	
			107,935		112,551
CURRENT ASSETS					
Debtors	6	54,108		63,478	
Cash at bank and in hand		377,351	_	331,316	
		431,459		394,794	
Creditors: Amounts Falling Due Within One Year	7	(20,307)	_	(29,545)	
NET CURRENT ASSETS (LIABILITIES)		_	411,152	_	365,249
TOTAL ASSETS LESS CURRENT LIABILITIES			519,087		477,800
PROVISIONS FOR LIABILITIES		_		_	
Deferred Taxation			(14,130)		(15,326)
		_		_	
NET ASSETS		_	504,957	_	462,474
CAPITAL AND RESERVES		=		_	
Called up share capital	8		234,250		234,250
Profit and Loss Account		_	270,707	_	228,224
				_	
SHAREHOLDERS' FUNDS		_	504,957	_	462,474

6.8. Financial Backing and Contracts

We are grateful to Hockerton Housing Project for their continued management input and reduced project management rates.

We buy and sell our electricity for the turbine with Good Energy Ltd. Sales and purchasing both operate under a 1-year contract term. The current rate paid by them for electricity in summer is £112.86 per MWh peak rate and £111.68 per MWh off peak rate and in winter £136.83 and £104.76 respectively. For each REGO they pay £14.00. They have been chosen partly because of their ethical credentials. We pay for import £224.00, £138.10, £158.70 and £125.10 per MWh Summer peak/off peak and Winter peak/off peak.

We sell electricity to the local businesses that host our PV systems. Currently the first three pay at a rate set to one quarter of the hosts day time import rate. In the case of Hockerwood Eggs we also bill Good Energy for export per kWh exported whereas the other two systems receive a deemed export amount per kWh. The new system at Beermats sells directly to the host at a discounted rate set to 40% but with a minimum charge of 16.9p/kWh.

6.9. Income Predictions

The bulk of the income has been from the Feed in Tariff payments however sale value of electricity is becoming more significant over time. Having said that the market rate has dropped from last year's high.

Feed in Tariff and energy sales rates per MWh:

	Energy Sales	Feed in Tariff
Generator	(£/MWh)	(£/MWh)
	at end of financial year	at end of financial year
Wind turbine	104 to 137	310
Hockerwood Eggs PV	127	178
Stormsaver PV	68	158
The Grange Centre PV	68	158

These FiT rates are index linked and will be in place until 1st October 2029 for the wind generator and 16th March 2034 for the Hockerwood Eggs PV system. The Grange Centre and Stormsaver site will run till 15th December 2035. Our income is therefore relatively secure for this period barring operational failure.

Income predictions are difficult because we depend on factors such as the wind speed for the year, reliability of production and grid reliability. Any allocation of money will be decided by the directors in post at the time. It will have to cover savings for running repairs, saving for investor repayment, interest payments to investors and ideally an amount to the village to reduce carbon emissions still further.

Corporation tax is being paid on income and will be: £14,606

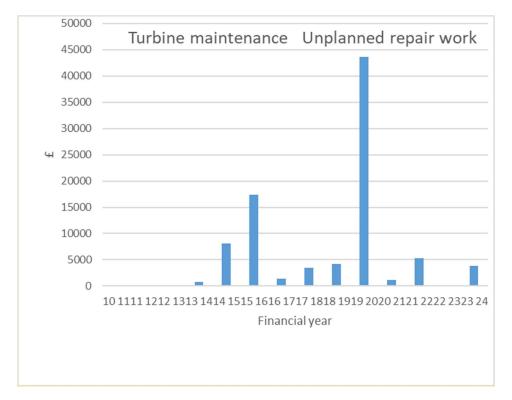
6.10. Bankers and Insurers

The Co-operative Bank PO Box 250 Delf House	Zurich Insurance plc
Southway Skelmersdale WN8 6WT	Policy Number: XAO1220548453 Renewal Date: 6th October 2024
Triodos Bank NV Deanery Road Bristol BS1 5AS	

7. Technical update

7.1. Operation Reliability

Below is a graph of maintenance costs for unplanned repairs:



The turbine has been regularly serviced. We have a service team from Spectrum Wind Services Ltd based in Worksop.

ONYX InSight have continued monitoring instantaneous output and the link can be found at the bottom of the page on our web site:

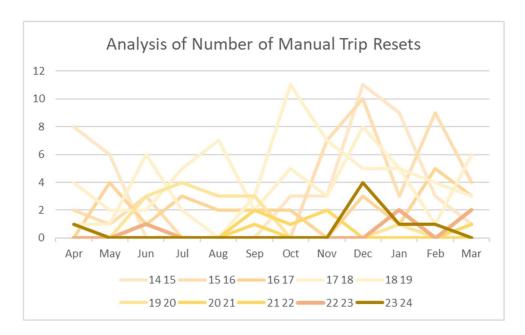
http://sustainablehockerton.org/community-energy/wind-turbine/

or directly using this link:

https://hockerton.onyxinsight.com/hockerton/

No break-ins occurred.

The G59 now automatically resets and Spectrum Wind Services can reset some faults remotely. However, the turbine itself can trip and some of these cannot currently be reset automatically or remotely. The number of such trips is graphed below by financial years.



In 23 24 the number of trips was 7, historic average 24 last year 5.

Outputs from all the PV systems are monitored and alarms set via "meters on line" https://secure.ss4meteronline.co.uk/index.html should output fail.

The two PV systems installed in the Parish and the ones in Hockerwood Eggs and Beermats Brewery are running well although Hockerwood Eggs West shed needed a new inverter and we added bird protection all round both panel areas.

We have a heads of terms agreement with Stormsaver as the lease is on hold due to the owner's arrangements with the pension company. The Hockerton Grange roof requires the owner still to complete a land registry change caused by probate issue. Here we currently have a heads of terms agreement in place. Beermats contract has been signed.