
Sustainable Hockerton Limited Director's Report



Directors Report
for year-end 31st March 2020, including updates to 31st August 2020
Presented at the AGM on the 26th September 2020
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Picture: by Simon Tilley

Authors: Simon Tilley in conjunction with other directors

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@sustainablehockerton.org
t: 01636 816902



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1. Introduction

Sustainable Hockerton Limited (SHL) has had another successful year, even though the wind turbine needed major repairs and we have been in a pandemic situation. The Photovoltaic (PV) arrays continued to operate well. We have received income from the sale of electricity, certificates and the Feed in Tariff via Good Energy Ltd. The two newer PV systems receive their tariff from Ecotricity.

In this financial year some surplus was again retained, interest paid out to members and money allocated to village sustainability. We reduced our savings to pay for the repairs.

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 environmental, social and economic impacts of the Society. It covers the period from 1st April 2019 to the 31st March 2020 with some updates to the end of August 2020.

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, Peter Cook and Edward Compton, only Edward stood for re-election and was re-elected at the AGM.

This year Geeta and Bryan will stand down at the AGM and both will stand for re-election.

Membership

There were no changes of members.

Members at beginning of year 79

Members ceased during year 0

Members admitted during year 0

Members at end of year 79

Members joining

None

Members leaving

None

3.Environmental Report

3.1. Energy and Carbon Dioxide

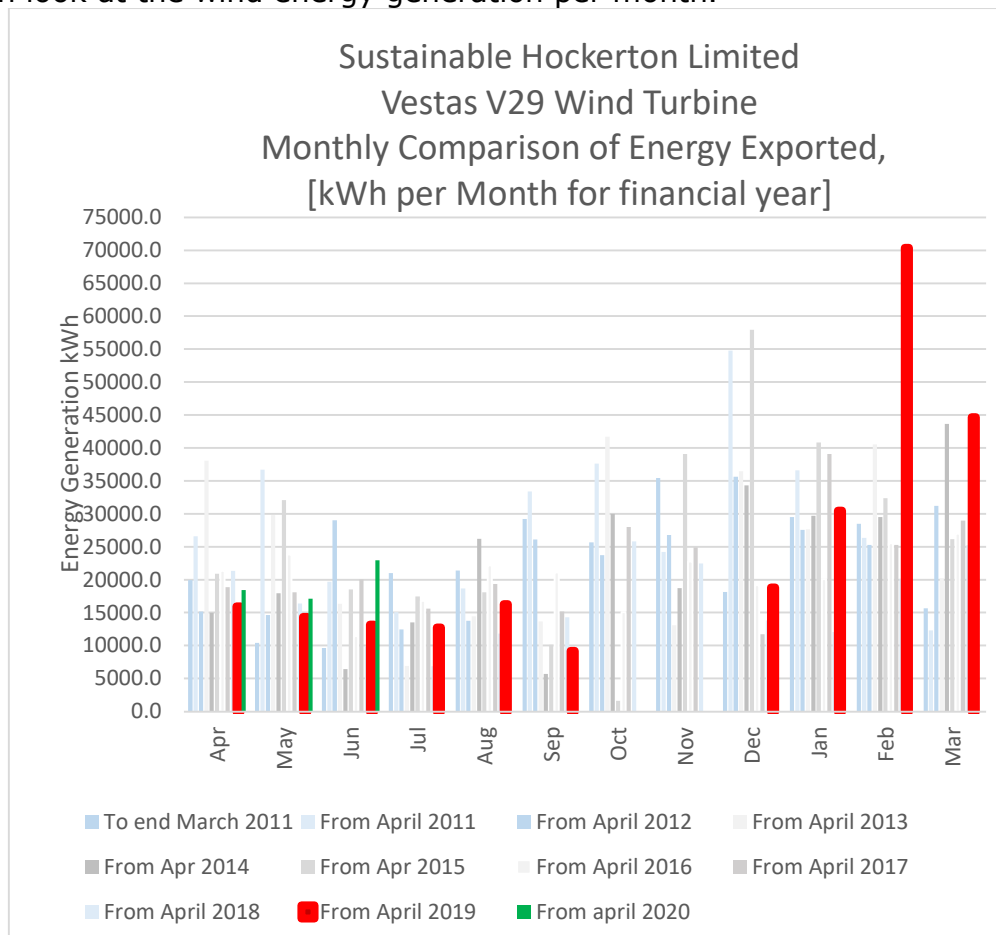
To assess the environmental benefit of the turbine and PV systems we can look at the electrical energy produced from the wind and sun and the Carbon Dioxide displaced from the grid.

Table 1 - Energy generation and Carbon Dioxide displaced

	This financial year, To end March 2020	Previous financial year
Energy produced Turbine [kWh]	245969	200040
Energy produced PV [kWh]	87 690	88 300
Displaced Carbon Dioxide Equivalent Total [tonnes]	86	82

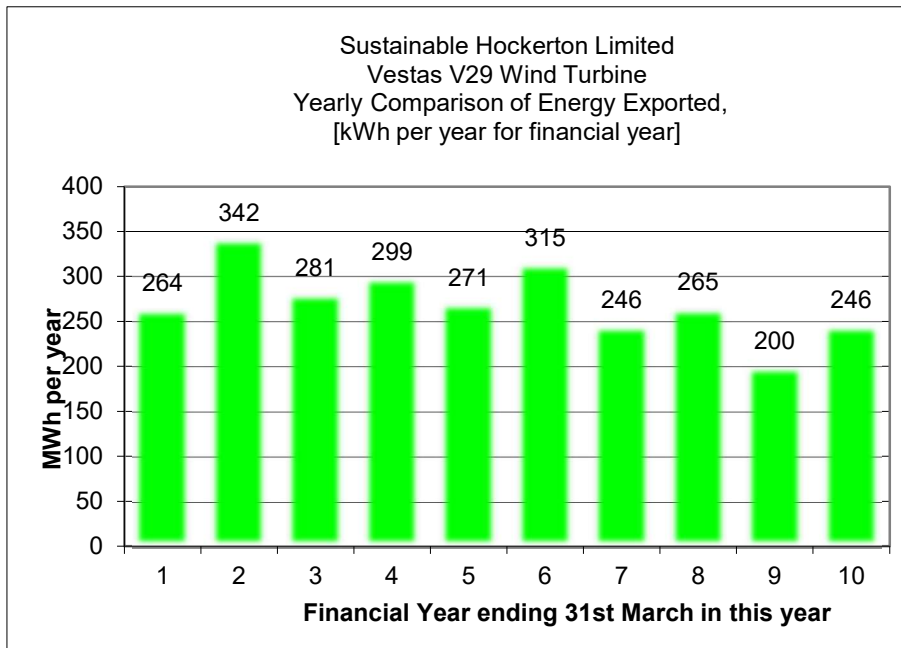
Using data from: <http://www.ukconversionfactorscarbonsmart.co.uk/> UK electrical generation 0.233 kg CO_{2e}

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 10 years is 272 938 kWh previously 275 934 kWh.

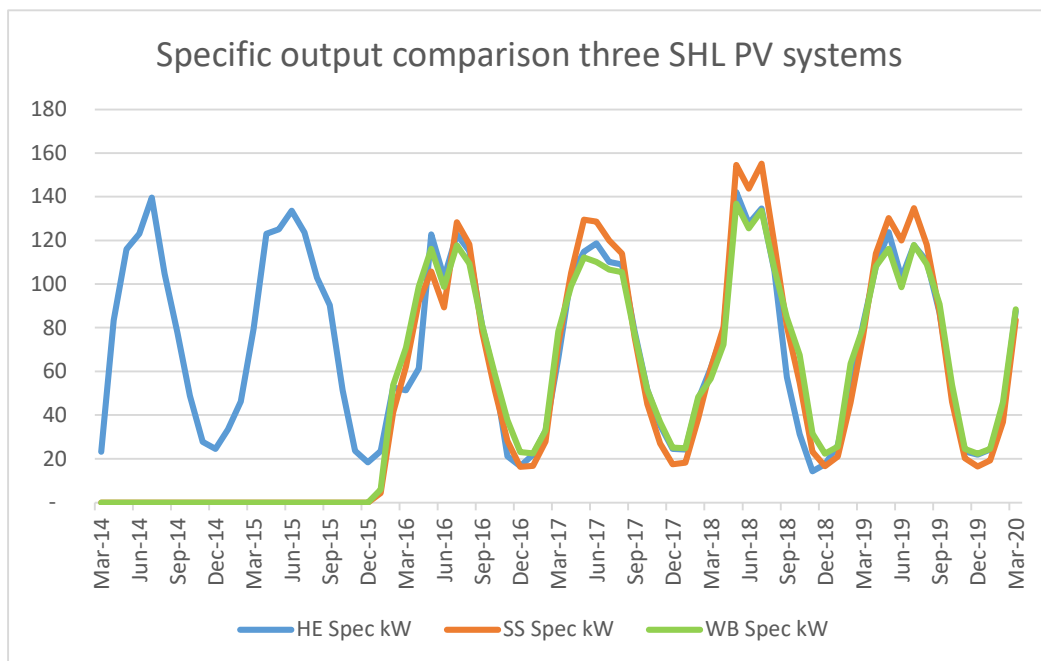


PV generation:

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 calculated from 45 000 divided by 50.

Specific output from the PV installations below per year and by month. Showing full year data only

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



4. Social Report

4.1. 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.

4.2. Support for Village

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

We continued with the offer of £200 for each household per year towards environmental improvements such as LEDs and solar PV 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, 9 people attended.

The verge on the Hockerton to Southwell road has been cut, funded by Sustainable Hockerton. This more frequent cutting than agreed by the council, has enabled people to walk more safely and easily along that route. This has had positive feedback in village meetings.

The village spent £5783.03 this year. With just over two thousand going towards the renovation of the village hall. See Financial Report below for details. Funds have been retained for use in more sustainable investment in the village as opportunities arise.

4.3. 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 Renewable Energy Master Class for students from Nottingham Trent University and elements of HHP Trading's Sustainable Living tour.

Our website is updated with news and output graphs. the website in the last calendar year has averaged 5542 hits/m. The "Story So Far" document has been downloaded at a rate of 27 times a month, the "Invitation to Invest" 4 times per month and the Village Survey 13 times per month.

A research paper using SHL as a case study has been written and published by two directors. This has been presented at conferences and well received. It has been downloaded at a rate of 8 times per month. It is called THE "POWER" OF COMMUNITY RENEWABLE ENERGY ENTERPRISES: THE CASE OF SUSTAINABLE

HOCKERTON LTD. By Dr Geeta Lakshmi (University of Lincoln) and Mr. Simon Tilley (HHP) ref:<https://www.sciencedirect.com/science/article/pii/S0301421519301533>

4.4. Employment

Hockerton Housing Project has project-managed the running of the turbine. To achieve this approximately 28 days of work was required. This was split between the Society's administration 22 days, turbine management 2.5 days, PV management 0.5 days and helping support village sustainability projects 2.5 days. 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.

5. Financial Report

The income from the turbine and PV systems continued with enough being made to start to replace our reserve. The unplanned repair work on the turbine was expensive totalling £43 656. Fortunately, repairs were completed quickly and in a low wind month. The reserve has been allocated either for potential repairs, investment in new capital items and/or savings for the potential repayment of shareholders. Interest payments were also made and some money was allocated towards village sustainability. A proportion of the village's allocation from previous years still remains in the SHL bank account.

5.1. 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 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. The sale of electricity and the value of the certificates creates our income stream.

5.2. Summary

For the year ending March 2020, our turnover was £87 874 and the surplus after tax was a loss of £18 503 (See note 2 of the Financial Statements). Interest was paid to members at 6% on 18th June 2019 totalling £14 250. 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. This year there was a large turbine maintenance cost of £48 602.

We allocated £1,000 more to supporting sustainability in the village during 2019, this brought the total allocation since inception to £53 123. The total amount spent by the end of March 2020 was £38 399 with £5 783 in the year. By the end of May 2020, the total spend was still £38 399 leaving £14 724 allocated to the village but still not spent and in our account.

The directors used the cash in easy access accounts to cover the breakdown and repair bill for the turbine. The fixed assets stood at £166 788. Net current assets were £168 425 of which cash at the bank and in hand £135 279.

5.3. Accounting period

The accounting period covered by the financial reports is from 1st April 2019 to 31st March 2020.

5.4. 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.

5.5. Interest Payments and distribution of Surplus

This year the directors will ask the members at the AGM in September 2020 to ratify the interest payment made to members in June 2020 of 5.5%. The process of ratification is out of sync with the accounts. The June payment of 5.5% will be recorded in the accounts of the financial year 1st April 2020 to 31st March 2021. The accounts presented in the 2020 AGM show the interest payment of 6% which was ratified at the 2019 AGM and related to the 18-19 financial year.

Directors will also ask for the ratification of the distribution of any surplus detailed in the accounts. Note that this differs from the amount the directors allocate, as not all of the allocation will have been spent. The allocation last year was £1 000 and in June this year was £1 000.

5.6. Investments in other organisations

Our cash is held in two different banks: The Cooperative bank and Triodos Bank. We have also invested in the Brighton Energy Coop, Community Orchard Coop and Energise Africa Bonds; BBOXX and Solar Now.

5.7. Income, Expenditure and financial position

Income and Expenditure Account, and Statement of Financial Position are taken from unaudited financial statements for the year end 31st March 2020.

	2020		2019	
	£	£	£	£
TURNOVER				
Electricity		43,901		20,374
Certificates		43,973		59,188
		<u>87,874</u>		<u>79,562</u>
COST OF SALES				
Rental of site	1,975		2,492	
Meter rental	552		504	
Electricity usage	2,545		2,698	
Turbine maintenance	48,602		10,024	
Security	-		116	
Street Signs	-		(4,015)	
		<u>(53,674)</u>		<u>(11,819)</u>
GROSS PROFIT		34,200		67,743
Administrative Expenses				
Village sustainability	5,783		3,577	
Insurance	3,447		3,308	
Accountancy fees	1,175		1,175	
Management fees	10,999		14,530	
Share interest	14,250		17,152	
Subscriptions	220		781	
Bad debts written off	-		177	
Depreciation of fixtures and fittings	4,720		4,720	
Depreciation of leasehold land and property	15,445		15,445	
Sundry expenses	19		102	
		<u>(56,058)</u>		<u>(60,967)</u>
Other Operating Income				
Other income - contributing to other operating income	802		1,682	
		<u>802</u>		<u>1,682</u>
OPERATING PROFIT/(LOSS)		(21,056)		8,458
Loss on revaluation of investments	(2,975)		-	
		<u>(2,975)</u>		<u>-</u>
Other interest receivable and similar income				
Bank interest receivable	1,106		880	
		<u>1,106</u>		<u>880</u>
PROFIT/(LOSS) BEFORE TAXATION		(22,925)		9,338
Tax on Profit/(Loss)				
Corporation tax charge	-		167	
Deferred taxation	(4,356)		1,607	
Prior year adjustment	(66)		-	
		<u>4,422</u>		<u>(1,774)</u>
PROFIT/(LOSS) AFTER TAXATION BEING PROFIT/(LOSS) FOR THE FINANCIAL YEAR		(18,503)		7,564

Sustainable Hockerton Ltd
Balance Sheet
As at 31 March 2020

	Notes	2020		2019	
		£	£	£	£
FIXED ASSETS					
Tangible Assets	4		147,263		167,428
Investments	5		19,525		-
			<u>166,788</u>		<u>167,428</u>
CURRENT ASSETS					
Debtors	6	43,148		21,424	
Cash at bank and in hand		135,279		182,823	
			<u>178,427</u>		<u>204,247</u>
Creditors: Amounts Falling Due Within One Year	7	<u>(10,002)</u>		<u>(9,398)</u>	
NET CURRENT ASSETS (LIABILITIES)			<u>168,425</u>		<u>194,849</u>
TOTAL ASSETS LESS CURRENT LIABILITIES			<u>335,213</u>		<u>362,277</u>
Creditors: Amounts Falling Due After More Than One Year	8		-		<u>(4,205)</u>
PROVISIONS FOR LIABILITIES					
Deferred Taxation			(18,964)		(23,320)
NET ASSETS			<u>316,249</u>		<u>334,752</u>
CAPITAL AND RESERVES					
Called up share capital	9		234,250		234,250
Profit and Loss Account			81,999		100,502
SHAREHOLDERS' FUNDS			<u>316,249</u>		<u>334,752</u>

5.8. 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 £51.62 per MWh peak rate and £47.10 per MWh off peak rate and in winter £58.61 and £50.33 respectively. They have been chosen partly because of their ethical credentials. We pay for import 12.9p per kWh peak rate and 11.34p per kWh off peak. (In other words, £129.0 per MWh and £113.4 per MWh respectively)

We sell electricity to the local businesses that host our PV systems. Currently all 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 where as the other two systems receive a deemed export amount per kWh.

5.9. Income Predictions

It is likely that the bulk of the future income of the generators will be from the Feed in Tariff payments in the near future. These 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 is 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 starting to be paid on interest income and will be paid once other tax reliefs come to an end.

5.10. Bankers and Insurers

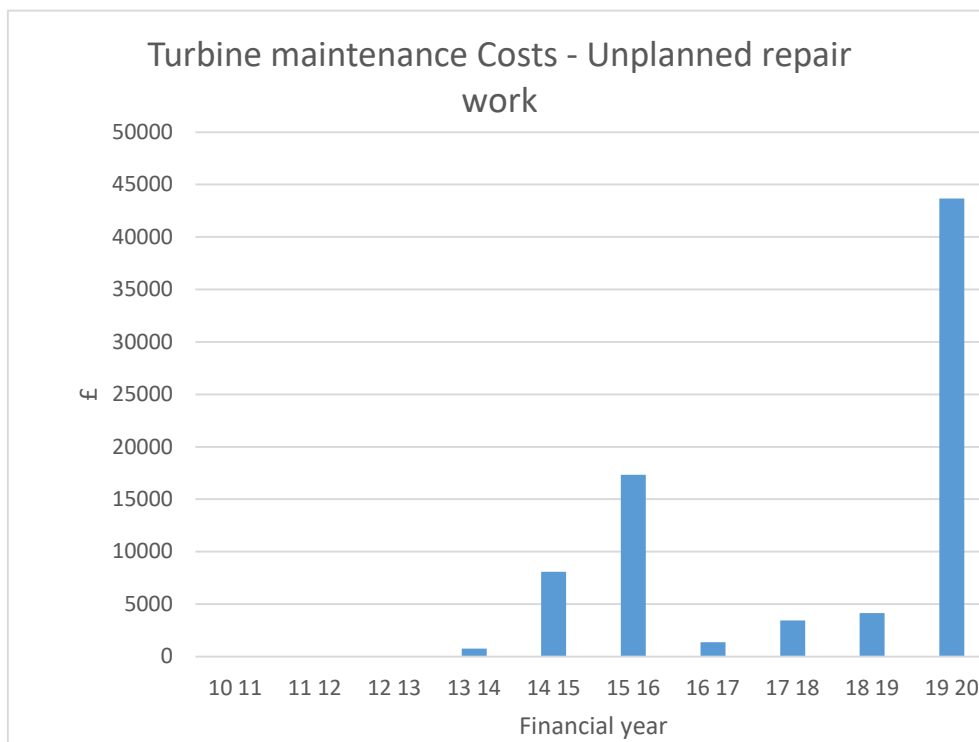
<p>The Co-operative Bank PO Box 250 Delf House Southway Skelmersdale WN8 6WT</p>	<p>Zurich Insurance plc Policy Number: XAO1220548453 Renewal Date: 6th October 2020</p>
<p>Triodos Bank NV Deanery Road Bristol BS1 5AS</p>	

6. Technical update

6.1. Operation Reliability

The turbine required repairs to the yaw gear ring and pitch root mechanism occurring at the start of October 2019, re start in mid-December 2019. While down the pitch root bearings and seals wear also fully reconditioned. The high-speed shaft seal has been replaced. These repairs have been are most costly yet.

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 Nottingham.

The loss of mains settings in the G59 protection have been updated to the new standards using Verdant Engineering Ltd.

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

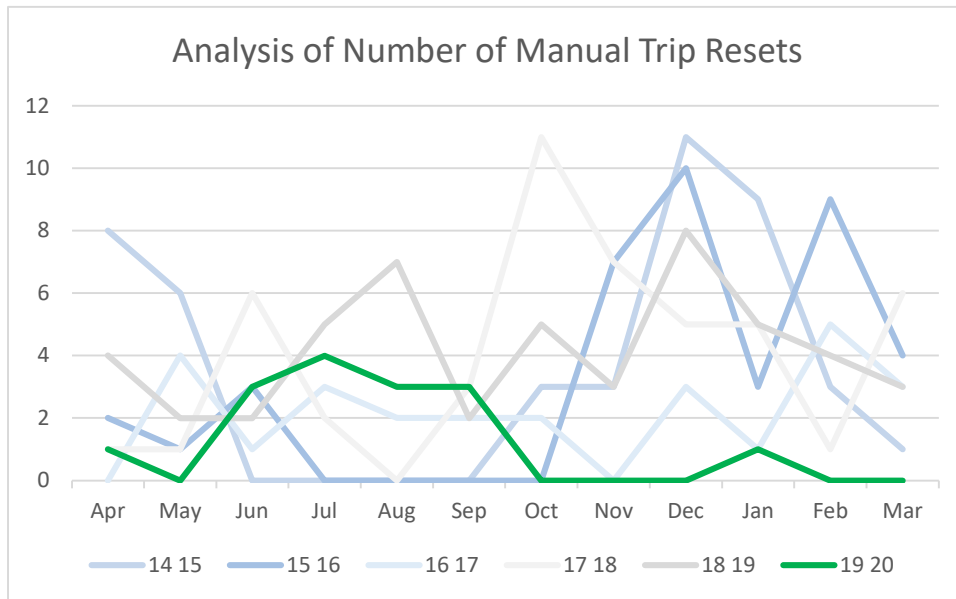
<http://sustainablehockerton.org/community-energy/wind-turbine/>

or directly using this link:

<http://hockerton.romaxinsight.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 19 20 the number of trips has decreased from average.

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 Hockerwood Eggs are running well.

The leases still need to be completed for both sites. The Stormsaver lease renewal has been delayed due to Covid. The Hockerton Grange roof requires the owner to complete a land registry change caused by probate issue. Once this is complete our lease will be progressed.

A fourth PV installation is currently being scoped but with slow progress.