Property and Maintenance 17/10/2023

25/22/23

TO RECEIVE AN UPDATE ON THE TOWN COUNCIL PREMISES TO REDUCE ENERGY COSTS AND MOVE TOWARDS A NET ZERO POSITION.

It was proposed by Councillor Dent, seconded by Councillor Miller and **RESOLVED** to provide delegated authority to the Town Clerk to liaise with the appointed Building Surveyor to further investigate options for Members consideration to reduce the Town Council's energy costs and assist in moving towards a net zero position.

Ricky Lumley

From: Sara <sara@barronsurveying.co.uk>

Sent: 09 December 2022 09:59

To: Ricky Lumley

Subject: RE: STC Buildings Net Zero

Morning Ricky

This isn't an area we are very familiar with. The best I can give you is this contact, who may be able to signpost you further.

Company A

I hope that Chris will be able to help you.

With kind regards,

Sara



Tel: 01752 257064

62C Larkham Lane Plympton Plymouth PL7 4PN

<u>james@barronsurveying.co.uk</u> <u>www.barronsurveying.co.uk</u>



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Company A



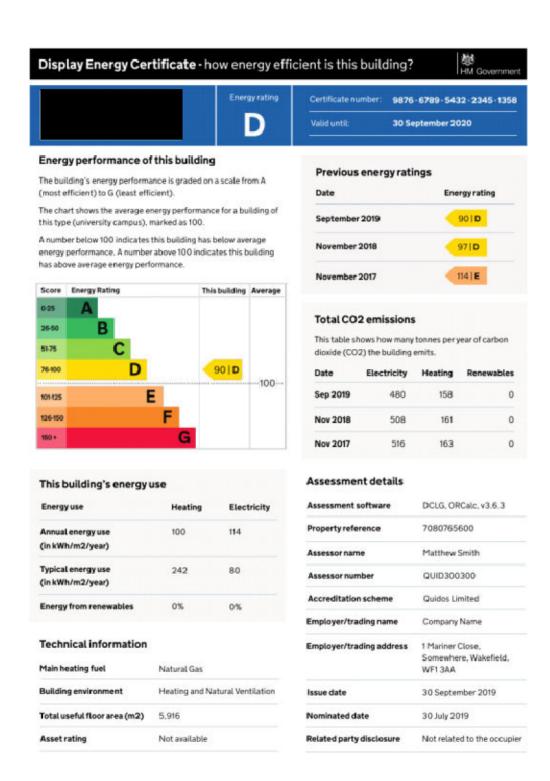
Hi Ricky

Happy New Year and hope you had a refreshing break. Regarding your enquiry looking at undertaking a survey on all Town Council premises with the view of working towards a net zero position. You mentioned that you have 5 buildings (the Library, the Guildhall, Maurice Higgins Room, Isambard House & Longstone), I've looked at these on Google maps so I can make an educated budget costing to complete a survey and report.

I have been considering the best and efficient approach for you, trying to restrict any additional modelling if possible, but ensuring your council has tangible information and recommendations. I've determined a couple of approaches as follows:

DEC assessments

Display Energy Certificates are designed to publically display the year on year energy performance of a building with the aim of improving its energy efficiency. So once the DEC has been initially completed, subsequent years they could be updated (without a site visit assuming no building changes have occurred) for a significantly reduced cost. This would allow progress to be reported and support the councils energy reduction action plan. The DEC is an operational rating based on actual energy consumption as opposed to an EPC rating which is an asset rating so we will need energy data from the buildings, utility bill copies or copies of their meter readings. A DEC looks similar to EPC see below and could be displayed in the building.



The software also produces an advisory report, identifying recommendations. A site visit will be required, and if possible availability of existing scaled drawings/floor plans. If plans are not available then we need to measure the building and allow time for that within the site visit. On this site visit they would validating floor areas, identifying how the environment is conditioned, visiting plant rooms, meters, A/C systems, checking occupancy and a gathering their information for the Advisory report. We can recruit commercial energy assessors willing to work with this project. Provide online and telephone support to the energy assessors throughout the process. Lodge DECs as necessary.

For your budgeting purposes, allowing a day for each site visit, Completion of the DEC assessment, DEC production and Advisory report, Lodgement of the DEC: £600 maximum per building.

Total Budget Estimate Cost £3000 exc VAT.

Baseline energy survey and producing a set of recommendations to improve the EPC rating of a non domestic building

The second option would be to carry out a building assessment, again this would require a site visit to conduct a full building assessment of the construction and building services. Following the survey the technical consultant would use Simplified Building Energy Model (SBEM) and other approved software tools commonly used for producing EPCs to produce a baseline model to compare the building being assessed with different energy improvement/ efficiency scenarios identified from suitable options assessed from the site condition survey and energy assessment. If there are no plans for a building, the energy assessor will need to survey the building and gather the appropriate information. If you have up to date information and plans for your building this process will be less time consuming. The energy assessor is responsible for ensuring the information used in the energy calculations is accurate and, even where detailed plans are available for existing buildings must validate this information by making a site inspection.

Approved software programmes using a government approved energy assessment methods such as simplified building energy model (SBEM) or dynamic simulation model (DSM) produces the EPC certificate and the recommendation report for the building. The recommendation report will help the council to improve the energy efficiency of a building. The recommendations only include those improvements that are appropriate for the building that has been assessed. For each recommendation indicative paybacks are noted. The recommendations are provided in four categories: short term payback (less than three years), medium term payback (between three and seven years), long term payback (greater than seven years), other recommendations (based on the energy assessor's knowledge).

can enhance and exceed this standard output recommendation report by preparing a bespoke summary report to provide the baseline EPC rating, Energy Performance and CO2 emissions and an energy band of the actual building. A proposed set of Energy Saving recommendations with the predicted impact on energy consumption and financial savings with some narrative and recommendations from iterative remodelling of improvements. These can all be summarised.

I would estimate on average 1.5 days for each of the buildings that need an energy assessment survey and modelling. Some larger or more complex buildings (multi zone, older properties, construction styles) take a day to assess and a second day to process in the software before report compilation.

Total Budget Estimate Cost £6300 exc VAT

I hope this meets your requirements, any questions feel free to ask. Kind Regards





QUOTATION - Energy Audits & Site Surveys

Energy Audits and Surveys - Saltash Town Council

Billing Address:Saltash Town Council
The Guildhall, 12 Lower Fore Street , Saltash

Customer Address:Saltash Town Council
The Guildhall, 12 Lower Fore Street , Saltash

PL12 6JX

Product / Service	Quantity	List Price	Total
Energy Services - Energy Audits & Surveys Location: Guildhall (PL126JQ) Details: Building Type: Offices (Multiple Partitions) Floor Area: <500m2	1	£1,117	£1,117
Energy Services - Energy Audits & Surveys Location: Library (PL126DX) Details: Building Type: Offices (Open Plan) Floor Area: <500m2	1	£1,032	£1,032
Energy Services - Energy Audits & Surveys Location: Maurice Huggins Room (PL126LA) Details: Building Type: Offices (Open Plan) Floor Area: <100m2	1	£917	£917
Energy Services - Energy Audits & Surveys Location: Isambard House (PL124EB) Details: Building Type: Hospitality Floor Area: <250m2	1	£1,157	£1,157
Energy Services - Energy Audits & Surveys Location: Longstone Depot (PL126DN) Details: Building Type: Offices (Open Plan) Floor Area: <100m2	1	£917	£917
		Net Total:	£5,140

VAT

Value added tax should be added to all prices at the appropriate rate.

Payment & Purchase Orders

To enable you to pay us efficiently you may need to provide a Purchase Order (PO). If this is the case then please forward a PO or the PO Number for If you do not require a PO then please send an email indicating that this is not needed and confirming that you are able to Pay on Invoice.

Please note - we will not be able to commence any works until we have received the PO or confirmation that a PO is not required.

Details - Service Specification & Scope

Full details of the Energy Audit & Site Survey service are provided as part of this Quotation and can be found in the proceeding "Specification" section.

Some specific information to support the scope of the service quoted for Saltash Town Council is provided below.

Funding options to implement the recommended energy saving initiatives will also be explored and advised as part of this service.





Validity

This quotation is valid for a total of 90 days.

also reserves the right to change or modify these Terms and Conditions or Service Specifications without notice. On receipt of a purchase order, details of any applicable amendments will be provided.

Major Changes to Building

Where significant changes occur that might affect the subsequent work required under this service, e.g. consultancy, calculations, reports, any deliverables, legislation or require re-verification of information; then additional costs may apply. Please see section 1.4, "Changes in Specification" in the Terms and Conditions below for more information.

Specification of Energy Audits & Site Surveys

The purpose of this service is for to provide Saltash Town Council with the Energy Audits & Surveys service. This service entails the undertaking of a Site Survey to identify potential utility savings opportunities available, which are then assessed and documented in an Energy Audit Report with associated cost estimates and simple payback calculations.

The overall service objective is to help Saltash Town Council find opportunities to reduce their energy footprint by identifying ways to reduce energy consumption, costs and emissions.

Site Surveys

The first step is to understand the scope of the Sites the Energy Audits & Surveys service is required for. Where the individual Sites that are to be surveyed are known up-front, then these are specified in Details above. These Sites usually relate to locations that an Organisation may wish to target as there is a suspicion that energy usage could be reduced. However, if Saltash Town Council are not sure about the individual Sites that should be surveyed, then this represents the number and type of sites that are included in this Quotation. It may be when the project is initiated and the reviews the list of all Sites used by Saltash Town Council, then the actual Sites to be surveyed may be different. Note, where an Organisation has sites which are very similar in terms of their building structure and operations, an approach can be taken where not all of them are surveyed and a sample selection is determined. However, any specific observations that are unique to an individual Site may not be realised if this is the case. can help ensure the best sites are surveyed and assist in the determination a logical selection and priority where a sample is required. This can be achieved in several different ways, such as:

- Benchmarking of the whole (or part) of the site portfolio using energy consumption data and another metric normally kWh/m2, but this could also require degree day adjustment (where site are spread over the UK) or a different metric in terms of manufacturing (e.g. kWh/product) or hospitality (e.g. kWh/stay/day) etc.
- **Utility Spend** focus on the sites with the biggest energy spend first, the higher the spend the greater the possibility there is of bigger savings.
- **Location** grouping sites into geographic areas to reduce travel time and costs or focus on regional groups for business structure reasons.
- **Known Issues** focus on sites with known problems or types of equipment e.g. it is known some sites have older boiler plants that will need upgrading soon anyway.
- Building Type/Usage survey a good split of different building uses where this is possible across the business.

Pre-survey Preparation and Data Analysis

Before attending the Site(s), some work is done to collate and analyse available information about the building(s) to be surveyed to understand the energy usage. This will include requesting the following types of information from Saltash Town Council:

- Location Details, type of building and what goes on there (e.g. it is a 1960's style office block, a warehouse, a Victorian school, light industrial units where it is manufacturing etc.)
- Energy (and Water) Use Data, e.g. bills and Half-hourly data if available for last couple of year if possible





- Site Floor Plans
- **Key Equipment Specification** (if available) this could be detailed if available e.g. from their asset register, or much simpler like size or type of the plant (e.g. we have 500kW biomass boiler)

Using the obtained information, an initial picture of the site can be built to enable preparation for the survey. Also, initial analysis of the energy data will aid in the calculation of benchmarks and help highlight anomalies that might point to potential problems to look for when conducting the site survey e.g. poor heating control.

Site Survey

During the site survey, a Consultant will visit the applicable premise(s) and carry out a full visual inspection of the building and its' major energy using equipment. The following activities will be undertaken whilst on-site:

• Photographs - specifically:

- Building exterior views (to record orientation) or any issues/opportunities identified outside
- Major equipment/plant rooms including model serial number plate and distribution systems (e.g. pipework)
- Rooms details, heating and cooling units, lighting, major equipment, exterior windows and doors (examples of types present not every single room)
- Main utility meters and sub-metering if present
- Capture general observation notes including details such as building fabric, age, condition, maintenance, key operations, potential improvements and any quantification of such potentials.
- Capture meter readings (where possible) to use later for validation or on a following visit. If possible, readings will be taken at least twice (at least 1 hour apart during normal building operations).
- Capture temperature measurements in areas where insulation is observed to potentially lacking.
- Capture lux measurements in areas where lighting levels are observed to be potentially too bright/dark.
- **Site contact questions** questions may be asked of the site contact and people met during the site walk-round regarding building controls (is there a BMS, is it managed on site/elsewhere), operations and general awareness of energy use in the building.

Post Survey Analysis & Report Preparation

Analysis

Following return from the site survey, the information captured is then processed and analysed to determine and quantify the savings opportunities identified.

For each saving opportunity the following are determined:

- Budget Cost using metrics gathered in site survey
- Estimated Saving (In Energy, Cost and Carbon) calculated using energy data and saving potential
- Simple Payback in years note, this will not entail using any complicated discounted cash-flow or financial predictions or energy price forecasting.

Report Preparation

The Energy Building Audit Report will then be compiled using all the data that has been collected during the previous steps. The report will provide details of the methodology adopted and the findings from the Site Survey(s). This will include photos and graphical representation of savings (if appropriate) for energy saving opportunities.

This will then be summarised, outlining the total saving potential, key findings and recommended next actions. The report will be then shared with Saltash Town Council.



Additional Information

Roles and Responsibilities



- Assign an Energy Services Consultant to provide the Services as set out in this document
- Liaise with the appropriate Customer representatives to arrange and deliver the Site Survey(s) and Report delivery

The Customer

- Nominate a key contact within the organisation to whom all enquiries related to the delivery of the service can be sent
- Timely feedback on questions as and when required
- Schedule the Site Surveys within the Organisation as required and ensure suitable provisions are made for the Consultant to complete the Site Visit and access all areas of the building(s) on the applicable day(s).

Deliverables

The deliverable is a **Building Energy Audit Report** which includes a number of sections and information to enable Saltash Town Council to take forward opportunities for energy saving to the next stage which may need more detailed analysis/investigate or be ready for Business Case Development or even in some cases, project implementation.

Invoicing Milestones

The service will be invoiced monthly in arrears based on the effort incurred and work completed relating to the delivery of the service in the month.

Timescales

Timescales for delivery of the services can only be confirmed following receipt of order. Where information requested by to fulfill the requirements of the project is not provided by the Customer within the agreed timescales, any delivery date previously agreed may be delayed. A new delivery date will be advised following receipt of the outstanding information and take into account the workload then in place by the



Energy Services Standard Terms and Conditions

These terms and conditions apply to Energy Services engagements undertaken by

1.1 Purchase Order Options

The Customer acknowledges and agrees that any reference to a purchase order or any associated invoice is solely for Customer's convenience in record keeping, and no such reference or any delivery of Services to Customer following receipt of any purchase order shall be deemed an acknowledgement of or agreement to any terms or conditions associated with any such purchase order or in any way be deemed to modify, alter, supersede or supplement these Terms and Conditions. These terms and conditions are the exclusive agreement of the parties with respect to the subject matter hereof and no other terms or conditions shall be binding upon otherwise have any force or effect.

1.2 Invoicing & Payment

An invoice for Charges will be forwarded monthly in arrears based upon items delivered and progress in the current month.

- 1.2.1 The Customer must pay the Charges to within the period of 30 days following the issue of an invoice in accordance with this Clause 1.2;
- 1.2.2 The Customer must pay the Charges by bank transfer or cheque (using such payment details as are notified by Customer from time to time);
- 1.2.3 If the Customer does not pay any amount properly due to under an order or signed agreement, may
- a. charge the Customer interest on the overdue amount at the rate of 5% per annum above the Bank of England base rate from time to time (which interest will accrue daily until the date of actual payment and be compounded at the end of each calendar month); or
- b. claim interest and statutory compensation from the Customer pursuant to the Late Payment of Commercial Debts (Interest) Act 1998; or
- **C.** suspend all Services until any overdue amount has been paid.

1.3 Delivery Timescales and Site Survey Cancellation

- 1.3.1 Timescales for delivery of the services can only be confirmed following receipt of an order or signed agreement. Where information requested by in order to fulfil the requirements of the project is not provided by the Customer within the agreed timescales, any delivery date previously agreed may be delayed. A new delivery date will be advised following receipt of the outstanding information and take into account the workload then in place by the
- 1.3.2 Cancellation and re-arrangement of confirmed Site Survey bookings will only be accepted if notified in writing or email. The following conditions will apply:
- a. 7+ working days prior to agreed Site Survey date, the visit can be re-arranged at no extra cost; or
- b. Less than 7 working days prior to agreed Site Survey date, the visit will be charged for in full, and any re-arrangement will be subject to additional fees; or
- **C.** Where a Site Survey cannot take place when the consultant has arrived on Site for reasons that are out of the control of the Consultant, then no refund will be provided an additional fee may be chargeable to re-arrange the survey visit for another time.



1.4 Changes in Specification

Any changes in specification realised or requested after placement of order may incur additional costs and affect overall delivery times. Changes may come about due to:

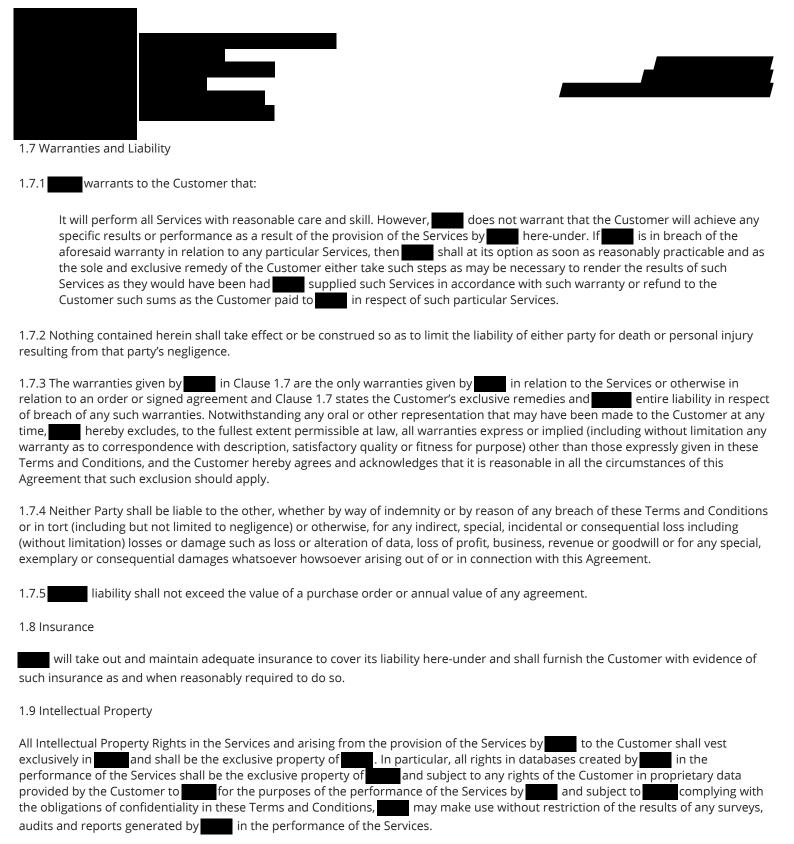
- 1.4.1 reserve the right to initiate a change process where the scope of the service being provided materially differs from that of the initial Quotation. This may include (but is not limited to):
- a. Changes in the customers energy landscape (e.g. additional items needing to be included in the scope of the services)
- b. Omission of information on which this quotation was based that leads to additional work being required by service
- **C.** Significant changes to a building that might affect subsequent processing or require re-verification of information. Examples might include but are not limited to: change in building use, Total Useful Floor Area, no access to the building or other special uses etc.
- 1.4.2 *Customer Initiated Change* the Customer requests to materially alter the scope of the service from that as per the initial Quotation. This may include (but is not limited to):
- a. Changes in the customers energy landscape (e.g. additional items needing to be included in the scope of the services)
- b. Omission of information from the Quotation that leads to additional work being required by
- 1.4.3 *Changes in Legislation* for services relating to legislation from a governing body, then the Service Specification is based upon achieving compliance with the legislation and Government guidance in force or known at the point of Quotation. Should this change after the Quotation was issued then reserve the right to revise the Service Specification in-line with any such changes. This is particularly relevant for multi-year compliance related services. Any changes as a result of this are out of the control of and the Customer.
- 1.4.4 For any changes in specification required after placement of order, a revised Quotation will be provided by resulting impact on cost and delivery. will only proceed with any changed Service Specification upon receipt of a new purchase order.

1.5 Publicity

Following provision of services under this proposal . may contact you for a quote/comment, case study or reference. Should you not wish to be contacted, please advise at time of placing the order or contact your Customer Account Manager.

1.6 Force Majeure

- 1.6.1 "Force Majeure Event" means an event, or a series of related events, that is outside the reasonable control of the party affected including failures of the internet or any public telecommunications network, hacker attacks, denial of service attacks, virus or other malicious software attacks or infections, power failures, industrial disputes affecting any third party, changes to the law, disasters, explosions, fires, floods, riots, terrorist attacks and wars.
- 1.6.2 If a Force Majeure Event gives rise to a failure or delay in either party performing any obligation under an order or signed agreement other than any obligation to make a payment, that obligation will be suspended for the duration of the Force Majeure Event.
- 1.6.3 A party that becomes aware of a Force Majeure Event which gives rise to, or which is likely to give rise to, any failure or delay in that party performing any obligation under these Terms and Conditions, must:
- **a.** promptly notify the other; and
- **b.** inform the other of the period for which it is estimated that such failure or delay will continue.
- 1.6.4 A party whose performance of its obligations under these Terms and Conditions is affected by a Force Majeure Event must take reasonable steps to mitigate the effects of the Force Majeure Event.



1.10 Infringement of Third Party Rights

1.10.1 In the event that any claim is made against the Customer for infringement of Intellectual Property Rights arising directly from the provision of the Services by to the Customer (or the use by the Customer of the Software). at its own expense shall conduct any ensuing litigation and all negotiations for a settlement of the claim. will bear the costs of any payment (either by way of a lump sum or a continuing royalty payment) made in settlement, or as a result of an award in a judgement against the Customer in the event of litigation, provided that:

a.	the Customer gives	written notice to	of any alleged In	itellectual Property	y Infringement or	claim threatened o	r brought agains
	the Customer prom	nptly upon becoming aw	are of it: and:				

b. the Customer gives sole authority to conduct the defence or settlement of such claim or any negotiations related thereto at expense and does not at any time admit liability or otherwise or attempt to settle or compromise such claim or action; and;





- **C.** the Customer acts in accordance with the reasonable instructions of and shall provide with all reasonable information, co-operation and assistance (including, without limitation, lending its name to proceedings) as it reasonably requires at a cost in respect of the conduct of the defence.
- 1.10.2 The indemnity given above is expressly limited to any damages awarded to a third party in a court of final judgement or to the amount of money, settlement or compromise agreed upon by with such third party.
- 1.10.3 The foregoing states the entire liability of to the Customer and the Customer's sole and exclusive remedies against in connection with claims based on or resulting from the infringement by the Services or the Software of any third party Intellectual Property Rights.

For the purposes of this Condition, the capitalised term "Intellectual Property Rights" means Patents, Registered Designs, Unregistered Designs, Registered Trademarks and Copyright only.

1.11 Confidentiality

- 1.11.1 All information disclosed by either of the parties (the "Disclosing Party") as part of the delivery of Services included within an order or signed agreement to the other party ("the Recipient") shall be treated as confidential by the Recipient in perpetuity and not be used other than for the purposes of the delivery of Services without the prior written consent of the party who has issued the information, unless such information:
- a. is now or later comes into the public domain other than as a result of a breach of the Clause; or
- b. is in the possession of the recipient party with full right to disclose prior to receiving it from the other party; or
- C. is independently received by the recipient from a third party with full right to disclose; or
- d. is required to be disclosed for the purposes of these Terms and Conditions provided the Recipient shall disclose it on a strictly need to know basis to the minimum number of employees and / or consultants necessary for the purposes of these Terms and Conditions and provided it shall ensure that such employee / consultant agrees to be bound by obligations of confidence and restrictions and prohibitions as to use and disclosure of the information no less stringent than those as set out in these Terms and Conditions.
- 1.11.2 The obligations of confidentiality contained in this Clause shall remain in force and survive completion of the delivery of Services included within an order or signed agreement without limit in point of time. Each party shall immediately upon the request of the other party return that party's confidential information and all copies to it.



Good evening

Apologies for the slow reply. I think there are more questions to ask in terms of what sort of net zero position you are looking to demonstrate. Buildings use energy, generally, in two ways. Regulated and unregulated energy. Regulated includes things like heating, hot water, lighting and cooling. These are all things that form the basis of Building Regulations calculations and Energy Performance Certificates. Unregulated energy includes things that are plugged in or equipment that is not part of the general building set up, e.g. a photocopier or a kettle.

If you are trying to achieve net zero for the building and all energy within it, then that would be a case of investigating building energy consumption and interrogating energy bills too. If you are trying to achieve net zero for just the regulated energy, then that's slightly less involved.

For the purpose of supplying you with a quote to compare to others, please see below.

- Net zero position to be based on regulated energy
- Visits to all buildings to collect data
- Energy Performance Certificate methodology to determine CO2 emissions from buildings
- Advice on achieving net zero at each building / overall portfolio

For a building to be net zero, it will have to include renewable energy to offset the energy that is used. That may be difficult to achieve on a space such as the Maurice Huggins Room, given presumably it is part of a larger building. In such a case, an overall portfolio net zero might be required, whereby carbon emissions at this site are offset at another.

Cost £1,900 + VAT

There are other things to consider too, including your definition of net zero. If you were to remove gas use from all your sites and only use electricity from a 100% renewable energy supplier, then in theory, that is net zero, as the energy supplied to your building is free from carbon dioxide emissions. If you moved back to a 'normal' supplier though, then the net zero position would no longer stand. So definitions and what it is that you wish to achieve are also important to understand / consider.

If your operational hours at buildings are fairly low, compared with typical standards (library, for example), then the EPC route won't be appropriate, it would be better to use your energy bills as an assessment route. The cost of that approach would vary depending on whether or not unregulated energy needs removing from the assessment.

If you have any questions about the suggested approach, or would like a quote for something different, then please do get back to me.

Regards