

Advisory Report

Report Reference Number: 0464-0328-2970-0392-0196

Building Occupier

University of York

Address

BIOLOGY LABORATORIES
BLOCKS A-G & J-M

University of York

Heslington

YORK

YO10 5DD

Building Type(s): Laboratory or operating theatre; University campus

ADMINISTRATIVE INFORMATION	
Issue Date:	14/12/2008
Valid Until:	13/12/2015
Total Useful Floor Area (m ²):	23834
Assessment Software:	ORCALC V1-05-02
Property Reference:	607903320014
Type of inspection:	Physical

ENERGY ASSESSOR DETAILS	
Assessor Name:	Ian Shellard
Employer/Trading Name:	Sustain
Employer/Trading Address:	Barley Wood Stables, Long Lane, Wroughton, BS40 5SA
Assessor Number:	BREC500006
Accreditation scheme:	BRE Global

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1. Background

Statutory Instrument 2007 No. 991, *The Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007*, as amended, transposes the requirements of Articles 7.2 and 7.3 of the Energy Performance of Buildings Directive 2002/91/EC.

This report is an Advisory Report as required under regulations 16(2)(a) and 19 of the Statutory Instrument SI 2007/991.

This section provides general information regarding the building:

Total Useful Floor Area (m ²):	23834
Building Description:	Biology Laboratories
Building Environment:	Mixed-mode with Mechanical Ventilation
On-site renewable energy sources:	Not applicable
Separable energy uses discounted:	Not applicable

Fuel Types:	Quantity used (kWh)
Electricity	6926696
Natural Gas	5468601
District Heating	1706960

2. Introduction

This Advisory Report was produced in line with the Government's approved methodology and is based on assessment software ORCALC V1-05-02. This advisory report was developed based on a physical visit of the building.

In accordance with Government's current guidance, the Energy Assessor did undertake a walk around survey of the building on prior to producing this Advisory Report.

3. Recommendations

The following sections list recommendations selected by the energy assessor for the improvement of the energy performance of the building. The recommendations are listed under four headings: short payback, medium payback, long payback, and other measures.

a) Recommendations with a short payback

This section lists recommendations with a payback of less than 3 years:

Recommendation	Potential impact
Consider with experts implementation of an energy efficient equipment procurement regime that will upgrade existing equipment and renew in a planned cost-effective programme.	MEDIUM
Consider a programme of fitting energy meters to lifts and escalators as part of the serving and maintenance regime.	LOW
Consider a programme of fitting energy meters to kitchen facilities as part of the serving and maintenance regime.	LOW
Consider with chefs and kitchen managers implementing an energy efficiency plan including maintenance and servicing provisions and operational targets, monitoring and incentives.	LOW
Consider with chefs and kitchen managers implementing a training programme and monitoring systems with incentives.	LOW
Consider how building fabric airtightness could be improved, for example sealing, draught stripping and closing off unused ventilation openings, chimneys etc.	MEDIUM
Consider installing timer controls to energy consuming plant and equipment and adjust to suit current building occupancy.	LOW
Consider introducing variable speed drives (VSD) for fans, pumps and compressors.	LOW
Seek to minimise simultaneous operation of heating and cooling systems.	LOW
Ensure building occupants understand when the various ventilation modes of the mixed mode system are in operation to avoid windows being opened when mechanical cooling is on.	LOW
Engage experts to assess the air conditioning systems in accordance with CIBSE TM 44. (This could be an appropriate opportunity to engage an accredited energy assessor to undertake an inspection in compliance with the EPC Regulations SI 2007/991 as amended.)	LOW
Engage experts to propose and set up an air conditioning servicing and maintenance regime and implement it.	MEDIUM
Engage experts to review overall air conditioning strategy and propose an investment programme for upgrading and/or switching to alternative solutions.	MEDIUM

Ensure catering equipment such as large ovens and dishwashers are utilised at maximum capacity, and/or install smaller capacity appliances to increase operational flexibility.	LOW
Consider installing automated controls and monitoring systems to electrical equipment and portable appliances to minimise electricity waste.	LOW

b) Recommendations with a medium payback

This section lists recommendations with a payback of between 3 and 7 years:

Recommendation	Potential impact
Consider applying reflective coating to windows and/or fit shading devices to reduce unwanted solar gain.	LOW
Consider engaging experts to review the condition of the building fabric and propose measures to improve energy performance. This might include building pressure tests for air tightness and thermography tests for insulation continuity.	MEDIUM
Consider introducing/improving cavity wall insulation.	HIGH
Engage experts to propose specific measures to reduce hot water wastage and plan to carry this out.	MEDIUM

c) Recommendations with a long payback

This section lists recommendations with a payback of more than 7 years:

Recommendation	Potential impact
Consider installing building mounted photovoltaic electricity generating panels.	HIGH
Consider replacing or improving glazing.	MEDIUM
Engage experts to review overall heating strategy and propose an investment programme for upgrading and/or switching to alternative solutions.	MEDIUM
Engage experts to review overall ventilation strategy and propose an investment programme for upgrading and/or switching to alternative solutions to improve effectiveness and energy efficiency.	MEDIUM
Engage experts to review the HWS systems provisions and propose remedial works, upgrades and/or alternative provisions to improve effectiveness and efficiency and plan for implementation.	MEDIUM

d) Other Recommendations

No other recommendations were specified by the energy assessor.

4. Next Steps

a) Your Advisory Report

As the building occupier, regulation 16(2)(a) of SI 2007/991 requires that you have in your '*possession or control at all times a valid advisory report*'. Regulation 16(4) specifies that '*an advisory report is valid for a period of seven years beginning with the date it is issued*'.

You must be able to produce a copy of this Advisory Report within seven days if requested by an Enforcement Authority under regulation 39 of SI 2007/991.

This Advisory Report has also been lodged on the Government's central register. Access to the report, to the data used to compile the report, and to previous similar documents relating to the same building can be obtained by request through the Non-Dwellings Register (www.epcregister.com) using the report reference number of this document.

You must commission a new Advisory Report in seven years from the date this Advisory Report is issued. However, a new Advisory Report may be commissioned earlier.

b) Implementing recommendations

The recommendations provided within this Advisory Report have been selected by the accredited assessor from a central list of recommendations, based on his / her knowledge of the building fabric, building services, the operation of plant and equipment within the curtilage of the building, and the general management of the building.

The accredited assessor may have inserted additional measures in section 3d (Other Recommendations). The recommendations are provided as an indication of opportunities that appear to exist to improve the buildings energy efficiency.

c) Legal disclaimer

The advice provided in this Advisory Report is intended to be for information only. Recipients of this Advisory Report are advised to seek further detailed professional advice before reaching any decision on how to improve the energy performance of the building.

d) Complaints

Details of the assessor and the relevant accreditation scheme are on this report and the display energy certificate. You can get contact details of the accreditation scheme from our website at www.communities.gov.uk/epbd, together with details of their procedures for confirming authenticity of a report and for making a complaint.

5. Glossary

a) Payback

The payback periods are based on data provided by Good Practice Guides and Carbon Trust energy survey reports and are average figures calculated using a simple payback method. It is assumed that the source data is correct and accurate using up to date information.

The figures have been calculated as an average across a range of buildings and may differ from the actual payback period for the building being assessed. Therefore, it is recommended that each suggested measure be further investigated before reaching any decision on how to improve the energy efficiency of the building.

b) Carbon impact

The High / Medium / Low carbon impact indicators against each recommendation are provided to distinguish, between the suggested recommendations, those that would most effectively reduce carbon emissions from the building. The carbon impact indicators are determined by the assessor based his / her knowledge of the building. In most instances, the carbon impact has not been calculated accurately.

c) Valid report

A valid existing report is defined at the Energy Assessor's discretion.