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| **Carbon Trust Standard** |  |
| **ASSESSMENT FORM** | |

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| Applicant Information | |
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| Company name: | Edinburgh Napier University | |
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| Applicant type:  Organisation  Subsidiary/Part organisation  Site |

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| Estimated annual energy spend: | £1.55 Million. | | | ***Segments***  *V. Large: Annual energy spend >£5m*  *Large: Annual energy spend >£500k or over CRC threshold, but below £5m*  *Medium: Annual energy spend £50k to £500k*  *Small: Annual energy spend below £50k* | | |
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| Segment: | Large | | |
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| Period of assessment:  (dd/mm/yy to dd/mm/yy) | 01/08/06 to 31/07/09 | | | *Refers to the period over which historic emission data is provided:*  *For v.large/large organisations, 3 year historic period*  *For medium organisations, 2 year historic period*  *For small organisations, 1 or 2 year historic period* | | |
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| Industry classification: | |  | | | | | |

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|  | Private Sector |  | Transport & Infrastructure |
|  | Utilities and waste |  | Construction & Property |
|  | Industrials and manufacturing |  | Hospitality & Leisure |
|  | Manufacture of Basic Materials |  | Healthcare & Pharmaceuticals |
|  | Chemicals |  | Public Sector |
|  | Household & Consumer Goods |  | Armed Forces and Emergency Services |
|  | Food Production & Agriculture |  | Central Government Departments |
|  | Beverages, Brewing & Tobacco |  | Education |
|  | Retail & Distribution |  | Executive Agencies |
|  | Financial Services |  | Local and Municipal Government |
|  | Hi-Tech & Professional Services |  | NHS Trust |
|  | Telecoms & Media |  | Other Public Buildings |

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| Contact: | Jamie Pearson | | Position: | Sustainability / Environmental Advisor | | |
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| Address: | Edinburgh Napier University, 2nd Floor, The Forum, 8 Bankhead Crossway North, Edinburgh, EH11 4BP | | | | | |
|  |  | | | | |
| Email: | [j.pearson@napier.ac.uk](mailto:j.pearson@napier.ac.uk) | | | | | |
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| Phone: | 0131 455 3747 | | Mobile: | 07770412601 | | |
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| *For office use only:* | | | | | |
| *Assessor:* | |  | *Assessment completion date:* | |  | |
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| *Moderator:* | |  | *Moderation completion date:* | |  | |
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| *Management assessment:* | |  | *Qualitative mark:* | |  | |
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| Footprint Measurement | | | | | | | | | |
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| Calculation of the carbon footprint should follow the principles of the GHG Protocol and/or ISO14064, subject to additional requirements outlined in *The Carbon Trust Standard Rules*. All carbon footprints should be calculated in tCO2e. | | | | | | | | | |
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| **Organisational boundary:** This isused to define which parts of an organisation are included in the emissions measurement and includes selecting an approach for inclusion of emissions from joint venture and subsidiaries | | | | | | | | | |
| Description of organisational boundary:  (See agreed proposal for assessment) | | | | All University owned and leased buildings in the UK, except for 12 Merchiston Place (Napier Students’ Association) and The Forum. See attachment 45 for a full list of sites (taken from Optima Site Information). | | | | | | |
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| How are joint-owned or controlled assets accounted for *(equity approach, financial control or operational control approach)*: | | | | No joint – owned assets – either owner or leased. | | | | | | |
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| Specific facilities/divisions included in boundary e.g. 150 retail stores across UK plus London HQ (please mark UK and overseas facilities): | | | | The estate consists of 10 sites and 20 non-residential buildings covering a Gross Internal Area of 84,671m2. | | | | | | |
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| **Operational boundary:** This is used to determine which emission sources are being measured | | | | | | | | | |
| Level of footprint measured (1 or 2): | | | Level 1. | | | | | |
| Level 1: Electricity & gas consumption, onsite energy consumption (e.g. heating oil, diesel, etc.), fuel consumption in vehicles owned by the organisation | | | | | | | | | |
| Level 2: Level 1 plus process emissions, fugitive emissions and emissions from business transport | | | | | | | | | |
| Any optional emissions sources included (e.g., commuting, waste): | | | | No. | | | | | | |
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| Emission sources which were excluded (de minimis): each must be less than 1% of the total footprint and must total no more than 5% of the total footprint | | | | | | | | | |
| Emission source | | Estimated % of total footprint | | | | | Reason for exclusion | | | |
| 1. Motorbike | | 0.0000024% | | | | | De minimis | | | |
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| **NB.** Our transport emissions could be considered as de minimis as they are less than 1% of our overall emissions for all three years. But, we have decided to keep the emissions included to further develop our commitment to reduce emissions from this area. | | | | | | | | | |
| **Benchmarks:** Footprints can be compared year on year on an absolute basis (measured in tCO2e) or using a relative benchmark (e.g. tCO2e /tonne product, tCO2e /FTE, tCO2e /£m turnover) | | | | | | | | | |
| If a relative benchmark is to be used please specify the denominator (e.g. tonne product, FTE, £m turnover): | | | | £m turnover. | | | | | | |
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| Rationale for benchmark (please refer to appendix B of *The Carbon Trust Standard Rules*): | | | | Expansion of University operations will be taken into consideration. | | | | | | |
| **Please complete the spreadsheet entitled *Carbon* *Footprint Spreadsheet* and enter information from sheet ‘Data for assessment form’ below** | | | | | | | | | |
|  | Year -2\* | | | | | Year -1 | | Year of application (Year 0) | | |
| Absolute footprint (tCO2e) | 8,235.8 | | | | | 7,712.7 | | 6,664.6 | | |
| *\* for organisations over CRC threshold* | | | | | | | | | |
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| *Assessor: Has the applicant measured an accurate footprint according to The Carbon Trust Standard Rules? If not, please explain the deficiencies in the data.* | | | | | Yes, but note that estimates were made for Comely Bank gas for periods in 07/08 and 08/09 using historic data , and for Canaan Lane and Sighthill Campus Electricity in 08/09 to adjust recorded consumption to the actual period duration. | | | | | |
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| Reduction | | | | | | | | | |
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| To enable a like-for-like comparison, the reduction rules must apply to the same organisational boundary (i.e. adjusted to take into account any acquisitions or divestments) and to the same operational boundary (i.e. same sources of emissions included). The applicant may choose to use an absolute or relative basis for comparison in accordance with *The Carbon Trust Standard Rules.* | | | | | | | | | |

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| Reduction assessment based on:  Absolute footprint OR  Relative benchmark    Level 1 footprint OR  Level 2 footprint |

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| Identify any structural changes in the organisation which have resulted in adjustment of the footprint to enable like-for-like comparisons (e.g., outsourcing, divestments or acquisitions): | | | | | | | | | | |
| Structural change: | | Footprint (tCO2e): | | | | | Adjustment made: | | | | |
| *e.g. Divestment of division X June 2007* | | *100* | | | | | *Emissions of division X excluded from calculations* | | | | |
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| **Adjusted footprint/benchmark used for reduction criteria - please enter information from ‘Data for assessment form’ sheet in the *Carbon* *Footprint Spreadsheet*** | | | | | | | | | | |
|  | Year -2 | | Year -1 | | Average historic data | | | Year of application (Year 0) | | Pass/  Fail | |
| Absolute footprint (tCO2e) | 8,235.8 | | 7,712.7 | | 7974.2 | | | 6,664.6 | | Pass | |
| Relative benchmark (e.g. tCO2e/tonne product) | N/A | | N/A | | N/A | | | N/A | | N/A | |
| Turnover benchmark (e.g. tCO2e/£mn) | 92.7 | | 80.4 | | 86.6 | | | 70.4 | | Pass | |
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| Please list the top 3 carbon reduction initiatives/actions taken during the period of assessment, along with estimated impact: | | | | | | | | | | |
| Initiative: | | | | | | Date | | | Estimated annual CO2 reduction | |
| 1. Heating Initiatives | | | | | | Ongoing | | | 900 (over 5 years) | |
| 1. Lighting Initiatives | | | | | | Ongoing | | | 400 (over 5 years) | |
| 1. Electricity Initiatives | | | | | | Ongoing | | | 400 (over 5 years) | |
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| *Assessor: Has the applicant achieved an absolute or relative reduction according to The Carbon Trust Standard Methodology?* | | | | Yes, both absolute and relative reductions | | | | | | | |
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| Carbon Management | | | | | | | | | | |
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| * For each of the questions below please provide a brief self-explanatory description in the box provided, referencing any relevant documents * The key documents (e.g. carbon policy, extract of annual report, copy of communications material) should be referenced and attached as evidence. Other documents referred to should be provided to the Assessor during the site visit if requested * We recommend no more than 20 additional pages should be attached, please only attach relevant sections of documents * The example evidence provided with each question is not exhaustive and only relevant elements should be submitted * Where appropriate, achievement of other certification can be used as evidence e.g., ISO14001, BSI EN16001 * Assessment will be made taking into consideration the size and circumstance of the organization * Please discuss these questions with your assessor to decide the most appropriate piece of evidence. | | | | | | | | | | |
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| *To be completed by assessor: please provide any relevant context for the moderator e.g., organisation description, previous certification* | | | | | | | | | | |
| The organisation underwent a CTSC gap analysis in April 2009. The Sighthill Campus was decommissioned in May 2008 for a major rebuild, only one building being retained and refurbished. The Sighthill activities were dispersed to other university and leased buildings. Sighthill will be recommissioned in October 2010, after which staff and students will be returned to that building and leased buildings will be released. | | | | | | | | | | | |

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| Section I: GOVERNANCE | |
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| 1. Policy: Does your organisation have a low-carbon/energy policy?  *Please provide a copy of your carbon policy, this may be part of a wider environmental policy and should evidence clear objectives and an action plan. Please clarify who has signed it off (e.g. management, Board, union representatives, etc.) and if it is available on any internal or external websites.* | |
| We have an Environmental Sustainability Policy and Plan. Both attached (Policy - attachment 1, Plan – attachment 2) both accessible at [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) Both the Policy and Plan were developed in January 2009 and were initially discussed by the Environmental Sustainability Advisory Group (ESAG) at the meeting on 28/01/09. ESAG is chaired by Vice Principal Prof Robin Mackenzie and is the main environmental management group at the University. The Policy and Plan were further discussed at the meeting on 07/05/09. ESAG minutes are attached (attachment 3) and also displayed at [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) The Plan and Policy were both developed from the Achieving Sustainability Policy (January 2007) and Environmental Policy (June 2008). Both the Policy and Plan are reviewed at least annually through ESAG with progress detailed at the bi-monthly Estates Committee meetings.  The Principal, and Mr George Borthwick, Chair of Court, on behalf of the University signed the Universities and Colleges Climate Commitment for Scotland (UCCCfS) on 02/03/09. Signed commitment attached (attachment 4). This Plan will be developed late April / early May 2010. UCCCfS is a voluntary process of universities and colleges throughout Scotland agreeing to collectively reduce carbon emissions and overall environmental effect through the higher and further education sector. This demonstrates the commitment of the University to contribute to the wider Carbon Dioxide reduction targets developed through the Scottish Government.  Reducing carbon emissions throughout the University is covered in depth through our Carbon Management Plan (attachment 5). The Carbon Management Plan was created through a lengthy process of consultation with a range of colleagues and departments within the University. The Plan is lengthy but shows, in detail, the commitment of the Principal, the initial baseline calculations, the integration of the Plan into the daily life of the University and the projects that will see Carbon Dioxide emissions reduced at Edinburgh Napier by a minimum of 25% (from a 2006/07) baseline by 2013.  Overall reduction of the University environmental footprint is also noted within the University Corporate Plan (attachment 6) and Strategic Plan (attachment 7). Both documents demonstrate high level commitment, and both are signed by the Principal and regulated by the senior management of the University through the Principal’s Executive Group.  As above, so that we, the Sustainability Office, can communicate our plans and policies, and ensure that everything we do is publicly accessible, and open for comment, all work completed at the University is attached to [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) Staff and students are also kept informed, and encouraged to comment on all developments and pieces of work through e-mail, posters and displays, social networking sites, the main University intranet and internet sites and at core events such as professorial lectures and focus days such as the annual Health Promotion Day, held in 2010 on Tuesday 23 February. | | |
| Assessor comments: The university has a clearly stated environmental policy and implementation plan as identified in the documents referred to below. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:   1. Environmental Sustainability Policy updated 07.05.09   5 – Carbon Management Plan | Mark:  4 / 5 | |
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| 2. Responsibility: Which Board Committee or other executive body has overall responsibility for climate change matters? Who has day-to-day responsibility for carbon/energy management?  *How often is the carbon/energy performance reviewed by senior management? What is the day-to-day management structure? Example evidence may include relevant organisational charts; minutes from relevant board meetings; no of FTEs with responsibility for carbon/energy management (% of time)* | |
| Ultimate Management of environmental work at Edinburgh Napier lies with Vice Principal Prof Robin Mackenzie. Day to day responsibility lies with Grant Ferguson, Assistant Director of Facilities Services. Richard Cebula (Energy and Utilities Manager, Full Time), Tracey Walker (PA to Sustainability Office, 23 Hours per week) and Jamie Pearson (Sustainability / Environmental Advisor, Full Time) form the Sustainability Office and are all 100% time committed to environmental work. Other staff within the University also contribute vastly such as the Maintenance Manager and his team.  The day to day work of the Sustainability Office is governed by the Environmental Sustainability Advisory Group (ESAG). The Group is chaired by Prof Robin Mackenzie with a membership as noted on the ‘Structure and Information Management’ document (attachment 8). The Group meet bi-monthly with all minutes placed on the Sustainability Office website [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) (see attachment 3). The performance of the University, in detail and including energy and carbon management is discussed at each meeting. The last meeting took place on 17/03/10. Action lists are also created after each meeting to ensure that work progresses and actions do not lie stagnant (see attachment 9). It is the responsibility of the Sustainability Office to ensure that all work is progressed at the University.  Overall responsibility for all work within the University, ultimately lies, with the Principal’s Executive Group (PEG). The membership of this Group is included in attachment 8. The Group discuss our Environment Key Performance Indicator, Carbon Reduction, annually. The last discussion of this took place on 01/12/09. There are no public minutes available from this Group. But, the internal Communications Team have started, as of January 2010, including the main discussions of PEG on the staff intranet to aid the filtration of information from the Group.  Environmental progress is reported on bi-monthly through the Estates Committee meetings. The last meeting was held on 23/02/10, copy attached (attachment 10). As per PEG, the members of the Estates Committee are noted on attachment 8. The Committee meetings are convened my Mr Brian Naylor, lay member of Court. Discussions at the meetings are fed back to the Sustainability Office through the Vice Principal, Research and Knowledge Transfer and the Assistant Director of Facilities Services. There are no public minutes available from this Group.  The Senior Staff and the Principal’s Executive Group members are also informed of progress through the Senior Staff meeting. Jamie Pearson, Sustainability / Environmental Advisor spoke to the Group on 01 October 2009 (see attachment 11 for the presentation). Meeting with the Senior Staff Group, and working with the Estates Committee and PEG on all core work at the University ensures that all senior managers are informed of environmental progress, and can progress and comment on actions, at Edinburgh Napier and it is the senior management responsibility to cascade this information through all departments.  Meetings with the three Faculty Executives are planned for 21/04/10 (Business School), 22/04/10 (Engineering, Computing and Creative Industries) and 27/04/10 (Health, Life and Social Sciences). These meetings will develop links between the structural and academic work being carried out at the University. A review of academic links was made in 2008 to demonstrate the breadth of environmental good practice being taught and researched at the University (attachment 12). This process will be carried out again late 2010. | | |
| Assessor comments: There is a well defined structure to the organisation for addressing environmental issues with individual responsibilities well defined. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:  8- Structure and Information Management | Mark:  4/ 5 | |
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| 3. Reporting and communication: How are emissions and reduction performance communicated to relevant stakeholders?  *Example evidence may include Annual/CSR Report; website printouts; CDP submission; reporting to parent organisation* | |
| As per question two, with senior managers responsible for the development of environmental initiatives at Edinburgh Napier and the Principal’s Executive Group, Estates Committee, Senior Staff Group and Environmental Sustainability Advisory Group in place, communication and reporting is a two way process at a very strategic level at the University. This ensures that senior management are given the opportunity, as per all other staff, students and visitors, to comment and make recommendations on all work being carried out.  The Carbon Management Plan is reviewed annually. Completing this, the Carbon Trust Standard document, is timely as it ties in with the completion of the first year of our Carbon Management Plan. We will report and communicate on the publication of both when we receive feedback. The feedback will include a full breakdown to all interested parties of the reductions we have made in terms of Carbon Dioxide over the past year, and since the 2006/07 baseline set within the Carbon Management Plan. Given that the Carbon Management Plan is new, the University has not had the opportunity to report on Carbon Dioxide emissions to date.  Edinburgh Napier participated in the Universities That Count programme in 2009 and 2010, with the last submission date being 05/03/10. Universities That Count has been formed around the structure of the Business in the Community Companies That Count Programme. Information gathered by participating universities is not yet made public, and universities are not publicly ranked. But, as per the business model, this will happen in the coming years. Universities That Count is a complex model. The 2010 submission from Edinburgh Napier took the form of a full Environment and Social Responsibility survey. The survey itself was 126 pages long, so possibly too large to attach to this document. Feedback will be received by the University in June 2010. In attachment 3, the full list of those responsible for submitting information to the Universities That Count submission is attached. This shows the depth of participation necessary from colleagues from throughout the University in completing the survey. In 2009 The Sustainability Office completed the Environment Index of the survey only (basically comprises of 25% of the information contained within the full Environment and Social Responsibility survey). The report we received is attached (attachment 13). Attachment 14 shows the forward plans made on the back of feedback from the 2009 survey. We will continue to annually assess our Environment and Social Responsibility performance annually through Universities That Count and we will continue to action recommendations made through the programme. It is important to note that key environmental performance reported on through the survey included Carbon Dioxide emissions, waste sent to landfill and water use.  The University is participating in Universities and Colleges Climate Commitment for Scotland (UCCCfS), as mentioned in section one. Creating a five year action plan for carbon reduction and general environmental improvement will mean that we collectively (with all other university and college participants) report on our carbon emission reductions. Our Environmental Sustainability Plan and Policy are also attached (attachment’s 1 and 2) to our website [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) Again, as per question one, our Carbon Management Plan (attachment 5) encompasses a wealth of environmental information. And again, the UCCCfS Plan is in the process of being completed, we have not reported on any reductions through this mechanism.  The University reports through the nationwide annual Estates Management Statistics. This is a mandatory requirement for all universities within the UK and demonstrates our energy use and waste created along with a wealth of other environmental and structural indicators. The information is gathered by the Funding Council and, in the future, this information will be gathered through the Higher Education Statistics Agency. The information submitted is attached (attachment 15).  The University is assessed annually through the People and Planet Green League. People and Planet are a student run environmental pressure group. Through a Freedom of Information request, we submit information covering a large range of environmental requirements, including Carbon Dioxide emissions, waste generated and wider social corporate responsibility work to People and Planet. From 2007, the environmental performance of the University has been reported through their website and also through the Times Education Supplement. The University has progresses significantly through 2007, 2008 and 2009 from 75th, 56th to 34th in the UK and 8th, 5th and 3rd in Scotland respectively. 2010 information will be reported on 17/06/10 through the People and Planet website and the Times Higher Education supplement. | | |
| Assessor comments: The responsible committee, ESAG, produces minutes of actions and maintains a follow up action list. ESAG reports up to the Principals Executive group (PEG), and members of ESAG are charged with briefing their respective parent groups. See also references below. Internal communications seem effective but user communication remains patchy. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:   1. ESAG Minutes 28.01.2009 | Mark:  3 / 5 | |
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| Please note that there is a flaw in this template, meaning that if text is larger than one page, within the text box, the text is lost and does not continue onto the next page. The information below is a continuation of question 3…  Staff, students and visitors are encouraged to read the website [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) , but also information placed on the main University internet site, the staff intranet site, the student portal as well as individual e-mails, information on the University social networking sites and through the Napier Students’ Association website and social networking sites. Posters, following appropriate local / national / international days and weeks such as walk to work week, Earth Hour (screen shots attached – attachment 16) are distributed through all campuses. Posters are also in every lecture theatre and classroom encouraging users to reduce their environmental footprint (attachment 17). Stalls are also placed at main campuses for focus weeks such as Fairtrade Fortnight (but, general environmental advice is passed on) and during Fresher’s Fairs. Initiatives are not always labelled as carbon saving. Simply because some staff and students do not immediately understand the concept of carbon reduction, but do understand the reduction in energy use or use of unsustainable transport methods for example. Also, many members of Facilities Services liaise with lecturers throughout the University and present the work of the University to appropriate curricular groups as requested. This gives staff and students a key opportunity to air their views and compare what they are learning to the actual progress of the University.  We actively encourage staff, student and visitors to report back to us. We have created a quick environmental checklist for staff and student’s to complete and to date have received some very interesting responses (copy of questions attached – attachment 18). We also embedded environmental questions into the recent Facilities Services questionnaire, recently distributed to staff and students (no information is available at the moment as the results are still being reviewed but we will act upon all information received). Through Napier Students’ Association and namely the Conservation Society within the University, students are actively encouraged to engage with the Sustainability Office and to in turn encourage their peers to do their bit to reduce the overall environmental footprint of Edinburgh Napier.  Section II: ACCOUNTING | |
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| 4. Accounting process: Are there procedures for preparing, quality checking and documenting an accurate carbon footprint?  *Example evidence may include data spreadsheets showing data sources and calculation;, 3rd party verification of compliance with GHG Protocol or ISO14064; description of primary data vs secondary data sources being used; identification of uncertain or estimated data; for recertification, any changes made to improve data quality* | |
| We have worked with the Carbon Trust to create our Carbon Management Plan. As much as the consultants we worked with have not independently verified our information, they have helped us through the process of evaluating our emissions, setting the plan and progressing out emissions reductions and have ensured that our information is not wholly inaccurate. The Carbon Management Plan itself is attached (attachment 5). The Plan explains, in detail, the process the University has gone through to calculate Carbon Dioxide emissions due to energy (electricity and gas), transport waste and water. The Plan also explains and details the calculations made for the staff and student commute to the University. Data spreadsheets for the calculations are available and can be presented if necessary. The Plan was created between June 2008 and March 2009 with a publication date of 31/03/09. It will be reviewed and acted upon annually.  Through the calculation of data for this, The Carbon Trust Standard, the rigorous method of compiling data regarding energy and transport can be viewed in the data sheets and the information presented by the University. The processes used and the considerations made are also detailed on the spreadsheets. In summary:  Bills from energy suppliers are audited by the Energy and Utilities Manager. All information is held within and continually evaluated within the Optima Monitoring and Targeting software that we use. The Manager inspects the half hourly meter readings and water information for our main sites on a daily basis to check for any issues or abnormalities. This information is also pulled together in a weekly review. Monthly meter readings are taken from all meters. See attachment 19 for this procedure.  Fuel used within owned and leased vehicles is procured through Shell fuel cards. We audit the amount of fuel procured on each card on a monthly basis, and note the fuel used against each vehicle as appropriate. Only one vehicle in the fleet does not currently use a fuel card. But we can obtain mileage reports from Arnold Clark, the lease company. With the expansion of our Optima software, we fully intend to integrate transport and waste information into the software. See attachment 20 for this procedure. See attachment 44 for the transport data gathered. | | |
| Assessor comments:Data collection and recording is by the energy office who employ a simple and transparent system using billed energy information directly entered into the Optima data base. Principal energy meters are read monthly to provide a cross check against bills, and where billing is not satisfactory other meters are read locally as needed. Optima provides a wide range of reporting capability including year on year trending of recorded data giving an immediate indication of abnormal changes. This facility is used in conjunction with basic common sense and in specific instances using degree day data to identify deviations from normal consumption. Optima is used to summate energy use by site in a quarterly or annual report which is used to calculate the annual emissions by energy source. Where year end adjustment or other estimation is used to replace missing or incorrect data, notes are entered in the annual summary report. Optima was introduced in 2009 to improve the ability to generate flexible reports and customise outputs where required and is still being developed – notably to produce comparative degree day performance graphs for key buildings. Vehicle fuel consumption is presently determined from monthly invoices recording user fuel card expenditure and individual vehicle use on an excel spreadsheet. This system will migrate to Optima in the next few months to improve the ability to generate flexible reports and customise outputs where required. Gas and Electricity data entry for the four main sites (Sighthill, Craighouse, Merchiston and Craiglockart) was verified by checking billed data against the Optima record for Aug, Nov, Jan, Mar, may and July for 06/07, 07/08, and 08/09 without error. Random checks were carried out on the remaining small sites - again without error, but it was noted that variable billing intervals meant that in some cases (noted in spreadsheets) year end adjustment had to be made to data. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:  21- Optima structure  23 Quarterly energy Report | Mark:  7/ 10 | |

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| Section III: CARBON MANAGEMENT | |
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| 5. Monitoring: Does the organisation have systematic procedures for actively monitoring and controlling energy and fuel consumption throughout the year?  *Example evidence may include a description of energy management systems (M&T),* *monitoring & managing fuel performance and mileage; energy survey reports; Energy Performance of Buildings certificates; ISO14001 certification;* *BSI EN16001* | |
| The University utilises dedicated industry standard Optima M&T software to manage and report on energy and fuel use (see attachment 21 Optima structure). The intent is to provide accurate and sufficient data to evaluate the overall performance of the Carbon Management Plan, both at an organisational and individual site level. It is the responsibility of the Energy Manager to ensure that the input data is current and robust.  Where possible, arrangements have been put in place with suppliers for web access to invoices to ensure minimum delay in data acquisition. Meter readings are also taken monthly for the University and used in the data validation process. The University has also agreed to the installation of AMR to contracted gas sites. Initially this is limited to 2 reads /month but will be increased to a higher frequency as the service is improved. Degree days and floor areas are also held in the Optima database to permit more sophisticated analysis. Half hourly electricity (4 over 100 kW sites) and water data (3 main campus) is downloaded weekly from the suppliers’ websites and imported into the Optima M&T system. This data is used to monitor weekly usage for the 3 main campus and forms the basis for further investigation by Facilities Services staff if the data shows excessive relative consumption (see attachment 22 Monitoring example).  On a monthly basis a report is produced which reflects the performance of the building estate as a whole in terms of energy and water usage. This data forms part of the Facilities Services KPI and is published on the internet. Budgetary energy use and cost data is produced monthly and this is used to monitor performance at an individual and corporate level with the data being used primarily for discussion with Finance Services. A quarterly performance report for the 3 main campus is also produced as a review mechanism (see attachment 24 - Quarterly report). It is also intended that within the next year the Optima reporting system will be developed following property rationalisation to include local performance reporting and display, weather and performance indexation and dissemination of information improved.  The Building Management System (BMS) which is linked to 4 sites including the 3 main campus is used to monitor environmental conditions within the buildings. Data obtained from the system is used to review the effectiveness of the control of HVAC services. Adjustments to the control strategy are made whenever appropriate. With the development of AMR it is the intention to analyse the impact of changes made through the BMS to changes in energy use.    An example of monitoring. Over the 2009/10 festive break we encouraged staff and students to switch off everything possible over the ten day period of the University being closed for ten days, with only the computer centre at our Merchiston campus open. We included the amount we spent over the 2008/09 period as an incentive in the communication (example of communication attached – attachment 24). We found that comparing energy use over the 2009/10 Christmas vacation, to the 2008/09 Christmas vacation, we made no saving. But, due to the cold weather, and festive events at our Craighouse Campus we know that boilers would have been working more than normal. We intend to feedback on this information as part of a wider investigation of local gas and electricity use at all of our campuses in Summer 2010.  The procedure for monitoring the procurement, use and recording of petrol and diesel is attached (attachment 20). We plan, during Summer 2010 to include this data, along with information on gas and electricity, on Optima. This will give us better control, and easier reporting mechanisms.  Where legally required Energy Performance Certificates (EPC) are on display. Faber Maunsell, when completing the EPC were also asked to carry out a full survey at our Merchiston campus.(see attachment 25 - OA Napier PO16435 0\_1) They also detailed the projects that would need to be completed to reduce carbon emissions from each property and improve the EPC score. | | |
| Assessor comments: Monitoring of year on year and degree day trending of energy use is carried out within Optima and is the basis for monthly, quarterly and annual monitoring of performance or the four main energy consuming sites. Introduction of AMR to main gas supplies will significantly improve the ability to monitor energy use. Other documents referred to above were seen and confirmed to support the statements made.  Evidence document(s) name, page no.:  23 – Quarterly report | Mark:  6/ 10 | |
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| 6. Targets: Does the organisation have a carbon/energy reduction target(s)?  *Include, where relevant, targets set for applicant organisation as well as for particular divisions / sites / function; how performance of business units/sites is compared (e.g. league tables); comparison to any external benchmarks* | |
| As stated in the University's Carbon Management Plan, the target is to reduce Carbon Dioxide emissions by 25% by 2013 from a 2006/07 baseline. As noted earlier, this constitutes the first and only environmental KPI reported on by the Principal’s Executive Group. This is an organisational target and does not specifically set targets by fuel type or site. The year on year holistic target is 5 % (see attachment 26 - CMP assessment March10).  Setting targets by faculty (3 off) is presently difficult due to the current nature of building use with several schools (9 off) sharing campus. This situation will be majorly addressed on occupation of the new campus at Sighthill, (operational from Autumn 2010), itself provided with extensive heat and electricity sub-metering. It will then be possible to collate data by faculty and school and analyse by occupancy, area, function etc. to provide performance league tables. A KPI by floor area has been produced for the 3 main campus and is used for both relative and individual performance (see attachment 27 - Electricity KPI graph 0808 to 1109). Annual estates management statistics are provided to HEFCE who collate data for all British HE institutions. The energy and carbon element of this data has improved in recent years and guideline benchmarks across the sector can be calculated and compared. For sites with EPCs then a comparison between sites is available with emphasis placed on energy reduction in the poorer performers. | | |
| Assessor comments: Based on evidence item 26 progress seems to be being made in line with the Carbon management plan. It should be noted that the Sighthill Campus was decommissioned in May 2008 for a rebuild of most of the site. Staff and students have been decamped to other sites and some leased buildings, thus affecting the overall performance data. Other documents referred to above were seen and confirmed to support the statements made above. Other documents referred to above were seen and confirmed to support the statements made.  Evidence document(s) name, page no.:  26 CMP Assessment March 10 | Mark:  3 / 5 | |
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| 7. Reduction programmes: What programmes or quality control mechanisms does the organisation have in place to ensure that the operating procedures and practices of all sites, vehicles and equipment minimises the carbon impact?  *Please provide a lists of key actions taken to minimise emissions e.g. new operating instructions; maintenance changes; fleet management improvements e.g. use of Freight Best Practice; systems set up for staff feedback* | |
| There are several interconnected strands to the reduction programmes introduced by the University. There is a programme of maintenance related works which, though primarily addressing issues with old and/or unworkable HVAC systems, results in reduced energy usage by virtue of replacement with more efficient equipment e.g. replacing efficient boiler plant at New Craig, modification to heat distribution including installation of TRVs at Merchiston, centralisation of the BMS. The latter is now regularly monitored to ensure and improve on operating performance and to marry the requirements of the building occupants with the need to manage the use of energy. Alongside there is a programme of energy related capital works financed through Salix (see 8 below) and where appropriate there is crossover between the two strands in order to achieve improved operational efficiency. Funds available through the Carbon Trust are used for feasibility studies and other consultancy services enabling the University to make considered investment decisions.  The University has an adopted Heating Policy which addresses issues such as acceptable internal temperatures and use of portable electric heating (see attachment 28 - Heating Operation Policy & Procedure Note.docx). In order to achieve a common approach by vendors and a common framework for users guidance notes have been produced for a standardised BMS control strategy (see attachment 29 - BMS Software 1.0.doc) for now and any future developments. Recently a guidance note was produced for staff covering events out with normal working hours (see attachment 30 - Guidance for staff covering events out with normal office hours.pdf). The opportunity was taken to identify potential areas of energy wastage. It is intended to produce further guidance on various issues, the next, following an internal survey at a major campus, being on the need and use of localised air conditioning.  There is a cross departmental initiative between Facilities Services and C&IT in place with the sole remit to reduce the environmental impact of all the computer and ancillary equipment throughout the University.  The University has just recently started using Planon software. Planon is an industry leading Integrated Workplace Management Solution (IWMS) providing solutions to manage corporate real estate, maintenance management, space and service management.  Planon was implemented in Edinburgh Napier University in March 2010, with the main area of functionality being the central helpdesk facility and the reactive and planned maintenance modules. This allows all users of University services to log faults as well as allowing the Facilities Services Department to efficiently schedule planned maintenance.  The helpdesk facility (the helpdesk number and e-mail address is promoted to staff, students and all users of all rooms through the University web pages, directory and posters in all meeting rooms and lecture theatres) records all faults in the campuses and residences such as heating, lighting, water and power issues. These are all logged against a particular space and asset and their progress is tracked from start to finish. Appropriate hours and costs for work are entered against each job upon completion. The system allows the University to retain a history of work on any particular asset and make cost effective repair or replace decisions.  This area also ties into our two-way communication with staff, students and visitors. For instance we have City Car Club vehicles on-site at our Craighouse and Craiglockhart campuses. We actively promote the Bike to Work scheme and have invested in extending the local number 23 Lothian Buses service between our Craighouse and Craiglockhart campuses. Participating in campaign such as Earth Hour, Walk to Work Week etc. and through linking all of our posters, e-mail communication and general distribution of information to our website [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) there are many opportunities for staff, students and visitors to thoroughly investigate our reduction programmes at Edinburgh Napier.  As mentioned in other sections of this document, staff, students and visitors are actively encouraged to send back their comments or queries on all of the environmental work we are carrying out at the University. We even have our details painted on the wall at our Merchiston Campus! See attachment 31. As listed in our Carbon Management (attachment 5), we thoroughly appreciate the difference that staff, students and visitors to the University can make to our overall environmental performance. | | |
| Assessor comments: Evidence has been provided of surveys by external consultancy (Carbon Trust) use of Salix funding to implement improvements, procedural improvements (heating policy, BEMS control) introduction of a maintenance helpdesk, car club and bike to work schemes. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:  25 – Carbon Trust survey  29 BMS software management | Mark:  7/ 10 | |
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| 8. Investments: What capital investments to reduce the carbon impact have been made over the last 4 years? What plans are there for further investment?  *Example evidence may include a* *list of key investments (e.g. lighting controls, purchasing fuel efficient vehicles) including the year, site, capital cost and, where possible, carbon/energy impact;£ claimed under ECA; extracts from specifications where carbon impact / energy efficiency has affected investments made for other purposes; forward plan or budget for investments* | |
| Pages 26 to 31 of our Carbon Management Plan (attachment 5) detail the thrust of the capital investment programme over the 5 year period 2008 to 2013. Also, for Specific details for heating, lighting and electricity initiatives see evidence the attached Investment.pdf (attachment 32). The projects outlined in our Carbon Management Plan were scoped from a range of suggestions from stakeholders and have been split broadly under the headings of embedding carbon management, reducing electricity use, lighting, reducing gas use, changing travel modes, reducing water use and reducing waste going to landfill.  In the case of sites with EPCs the recommendations for energy improvements are also assessed for viability. The final decision to proceed on any project however is dependent on an energy saving against cost analysis, particularly when Salix funding is to be used and project compliance is a requisite. Generally a simple payback period of less than 5 years is required. Not all projects are viable e.g. the recommendation to replace the current T8 light fittings with T5 light fittings at Merchiston campus has an unacceptably high payback period. However this has promoted investigation into conversion kits or LED replacement. Salix itself provides a ring fenced energy investment fund with a grant value of £250,000 and a matched fund by the University of £62,500. After the loan on any individual project has been repaid all further savings are retained by the University for further investment.  It is also standard practice, when carrying out localised refurbishment of an area, to incorporate energy efficiency measures as part of the works e.g. fitting TRVs to radiators, more efficient hand-dryers, occupancy sensor driven urinal flushing linked also to toilet lighting and ventilation.  The brief for the rebuild of the Sighthill campus has emphasised the requirement for energy efficiency and the project has recently gained a BREEAM excellent for design. Low carbon emission and effective overall energy performance are important elements and this will be achieved by:   * Minimising heat loss through the building and windows * Using natural daylight to encourage economical use of artificial lighting along with a lighting management system * Preventing overheating in the summer through the use of shading * Making effective use of natural ventilation * Improving the energy efficiency of amenities and equipment e.g. the main compressors for the chillers * The installation of a CHP engine * Extensive BMS for control and monitoring * Heat and electricity sub-metering   A project summary to date is supplied (see attachment 33 - Project data.xls). Various projects have been implemented at Merchiston campus in the last 18 months, all of which impact on the gas usage for the site. As a result gas consumption for 2008/2009 is down 12.5% against 2006/07 (see attachment 34 - Merchiston gas 0809) and to date for 2009/2010 is down 33% against 2006/07 (see attachment 35 - Merchiston gas 0910).  Future works will have more emphasis on reducing electrical consumption. A voltage optimisation scheme for Merchiston is included in a general electrical distribution rationalisation for which a tender document is currently being prepared. Decisions will be made soon on the best approach for reducing the lighting demand at the same site and the University has the opportunity to trial a sophisticated lighting management and monitoring system. | | |
| Assessor comments: The university has implemented items identified in its Carbon management plan and has used Salix funding to bring forward capital investment for a number of performance improvements. The major investment affecting emissions is likely to be the rebuild of the Sighthill Campus which has been in progress since 2008, and will be commissioned in the autumn of 2010. the building is a BREAMM excellent design incorporating significant carbon reduction measures. Other documents referred to above were seen and confirmed to support the statements made above. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:  32 – Investment | Mark:  7 / 10 | |
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| 9. Training: Are there awareness programmes for all staff (and opportunities for participation) and appropriate training for those with responsibility for carbon emissions?  *Example evidence may include contents pages of training material; example communication material e.g., posters, emails, articles, intranet; external training courses attended; calculated man-days of training time; minutes of training meetings* | |
| There are no generic mandatory training programmes for all staff at the University. Students do cover carbon emissions through core undergraduate and postgraduate courses through the Scottish Energy Centre, Transport Research Institute and Timber Research Institute for instance. A breakdown of a curricular assessment carried out in 2008 is attached (attachment 12). Other students, as part of the Facilities Management MSc course for example do look at emissions reductions as part of their course. Most information on the curricular links and developments at Edinburgh Napier are through websites. We recommend that you visit the links, through the websites noted on attachment 38.  Training for staff is received through a variety of sources and organisations such as the Environmental Association of Universities and Colleges (the University is a member). Through their Topic Support Networks (waste and transport for example), specific training events (Sustainable Procurement for example) and an annual conference, there are a wide array of training events available for staff.  Staff are interviewed and trained to fit their role at the University, should that be the Sustainability / Environmental Advisor or a lecturer specialising in transport research for example. But, there is no overarching structural training programme for all staff. Staff can request training through the Sustainability Office, for instance training was recently carried out with eight library staff. This was a follow up to some of the library staff completing a short environmental review of two of the University libraries. The review is available to all staff at [www.napier.ac.uk/environment](http://www.napier.ac.uk/environment) and feedback is provided by the Sustainability Office (see attachment 18). Staff and students are also encouraged to become Environmental Champions. A formal process for this has been set up with around 30 staff and 30 students putting their name down. The pro forma for environmental champions is attached (attachment 36). This is a purely voluntary scheme. And, as the pro forma shows, provides a mechanism for all Environmental Champions to feed back any environmental queries that they might have.  In October 2009, Jamie Pearson presented the work of the Sustainability Office to the Principal and the 50 senior managers at the University. Not mandatory training but many spin-offs have happened because of it, as senior managers have been more aware of their personal and departmental commitment (attachment 11). Sustainability is now a standard agenda item at the Quarterly Campus Users Group meetings, providing information to representatives from all Schools and Faculties (attachment 37 shows and example).  The meetings with Faculty heads, noted in question two, will also initiate a full review of the curriculum at the University, specifically how programmes offered and run can tie into wider environmental and sustainable development ideals. The report, which we expect to receive from Universities That Count at the end of June 2010, will also include information and recommendations on developing training programmes for students and staff at the University.  As per section three, there is at least one staff and student awareness programme per month at the University. This usually follows local / national / international campaigns such as Earth Hour and Energy Saving Week for instance. Through all campaigns, staff and students are not only encouraged to view the campaign but read on to look at the wider perspective at the University i.e. read the Carbon Management Plan (attachment 5).  Vehicle drivers, mainly those driving University vehicles are due to attend driver training in summer 2010. The last training of this kind was completed in 2006. Unfortunately there are no records from this training event. But, this year, along with publicising the Driving at Work Policy (attachment 43 – see pages 9 and 21 but please note that this is a draft document and has not been circulated yet), the Health and Safety Team will run training with key staff. This training will include environmental considerations, and will follow advice from bodies such as the Energy Saving Trust. | | |
| Assessor comments: There is no structured training policy currently in place although informational posters, e mails and staff/student briefings take place on a regular basis. No formal CPD or other training is carried out in the Sustainability Office. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:  11 Senior Staff briefing | Mark:  2 / 5 | |
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| 10. Products & services: What programmes are in place to reduce the lifecycle carbon impacts of the organisation’s products and services and/or influence other organisations?  *Example evidence may include environmental criteria of procurement processes; analysis of product footprint and reduction actions; examples of lower carbon products developed; examples of using company influence/marketing to educate and influence customers; involvement in wider community on energy/carbon* | |
| Staff and students have been, and will continue to be influenced to consider their environmental footprint whilst at the University, through the initiatives noted throughout this application. The Environmental / Sustainability Advisor is a board member of the Environmental Association of Universities and Colleges Scotland (EAUC-S). The Association exist to encourage universities and colleges in the UK to work together and reduce carbon emissions amongst wider environmental work.  With the publication, and associated targets held within, of the Scottish Government Sustainable Procurement Action Plan for Scotland, Prof Robin Mackenzie has been nominated to progress all work at the University. The University has just started embedding this information into procurement delivery plans. At the moment, the only company that passes on any carbon information at the moment is Office Depot. They send us an annual report on the associated Carbon emissions from delivering stationary to our campuses. Our procurement mechanisms were assessed through our 2010 Universities That Count submission. We fully intend to develop and act upon all information gained through this survey and attach to our response to the Sustainable Procurement Action Plan for Scotland.  Through the collection of our significant aspects, as identified in current programmes of work such as the Carbon Management Plan, Universities That Count and the development of our Environmental Sustainability Plan and Policy, we intend to develop our work and progress this towards ISO14001. We realise that this will be a lengthy process but we are very keen to develop our work through an EMS at Edinburgh Napier. Some work that we have carried out to date in terms of planning and assessment is attached in attachments 40 (EMS aspects audit), 41 (EMS system model) and 42 (Impacts Assessment).  Currently, to become an approved contractor, businesses must submit a copy of their environmental policy to make the list. A copy of this document is attached in attachment 39.  We recently gained BREEAM Excellent for the redevelopment of our Sighthill campus. This will hopefully mean that we are creating a campus that will secure a lower Carbon future for the University. This work is part of a wider £100m estates strategy to make all our buildings modern places to work and learn.  As much as we can’t account for the use of green electricity, it is important to note that we do purchase 100% green electricity through a contract set up with the Advanced Procurement for Universities and Colleges (APUC).  Basically, we don’t make anything at the University but we are a service organisation in terms of educating students. Through that principle and the information contained within this document, we hope that we have demonstrated that we are fully committed to reducing the environmental footprint of all staff and students at the University by offering a service that is thoroughly looking at reducing its environmental footprint and overall Carbon Dioxide emissions. By doing this, we are essentially reducing the environmental footprint of our product. With the hope that the product will go on and influence positive environmental behaviour. | | |
| Assessor comments: The University has done significant preparatory work for an environmental management system in the form of the evidence item below. They are not a manufacturing organisation and in the services area are largely dependent on sourcing low carbon suppliers to have an impact on their footprint. Other documents referred to above were seen and confirmed to support the statements made above.  Evidence document(s) name, page no.:  40 – EMS Aspects Audit | Mark:  3 / 5 | |

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| *To be completed by assessor:* | | |
| *11. Site visit: Based on the site visits, does the organisation display good overall carbon management practices? For recertification, has the organisation responded appropriately to previous recommendations?* | | |
| Assessor comments: There is a clear low carbon policy in place supported by a good high level implementation structure. Systems and procedures were generally regarded as good, although not formally structured. The move toward ISO 14001 accreditation should help to achieve this. There is a notable lack of structure to training of both end users, Sustainability office personnel and university staff at large which should be rectified as soon as practical. Data quality and transparency was good, and whilst there are some data gaps these do not have a material impact on the calculated outcome. Such gaps have been filled by use of historical data. Investment in reduction measures is good in light of the additional capital investment taking place in the refurbishment and substantial rebuild of the Sighthill Campus. Since the CTSC gap analysis in 2009, major improvements have been made in data transparency and quality, and access to supporting documentation has been greatly improved. | | Mark:  6/ 10 | |
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| Total qualitative mark  (48 or 60% constitutes a pass) | 52 / 80 | | |
| Assessor recommendation: Pass  Assessor comments: As above. | | | |

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Assessors: Please email completed formsto [carbontruststandard@nef.org.uk](mailto:carbontruststandard@nef.org.uk)

**Queries**

If you have any questions about this form, please contact your assessor, email your query to [carbontruststandard@nef.org.uk](mailto:carbontruststandard@nef.org.uk) or phone us on 0845 838 8464.

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