



DERBY COLLEGE GROUP

Streamlined Energy and Carbon Report

Reference: GOV-003
Year: 2020
Designated Owning Department: Corporate Affairs

Date: January 2021
Executive Owner: Deputy CEO – Strategy & Corporate Services
Lead Reviewer: Director of Estates
Reviewers: Director of Estates

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POLICY - PROCEDURES - GUIDELINES - RELATED DOCUMENTS

Introduction

In line with the Guidance for Streamlined Energy and Carbon reporting, as set out in the College Accounts Direction, Derby College Group (DCG) can report the figures as below, calculated and based on UK Government GHG factors for company reporting. (The corresponding period of report spans two calendar years; thus, the appropriate conversion factors have been used unless stated otherwise for the respective months Aug – Dec 19 and Jan – July 20).

The emissions reported correspond with the highlighted period of 1st August 2019 -31st July 2020 from leased and controlled assets for which DCG is responsible. Emissions have been calculated and reported in accordance with their individual scope and classification resulting predominantly from acting as supporting infrastructure for the delivery of the group's core activities of teaching and learning, with a small contribution which could be deemed applicable to commercial activity. In circumstances where recorded data is not available a justifiable method of estimation has been applied based on the context of use and end user knowledge. Calculations and output methodology has also been incorporated where DCG is actively responsible for the consumption of the energy (and as such for the reporting of it), this is currently attributable to a landlord / tenant arrangement for the occupancy of property referred to as the "Johnson Building", where residence is based upon a long-term leasehold agreement - 2009-2029.

Transport fuel expressed as energy consumption and highlighted as kWh output refers to a calculated contribution from in house fleet vehicles, where known engine capacity, recorded mileage and estimated use has been used.

Scope 3 emissions (business travel) calculated in metric tons of CO₂e have been based on an overall mileage figure taken from staff mileage claims paid within the qualifying period using the appropriate conversion figure for a large diesel engine car as directed in the 2020 guidelines only.

Future submissions will allow prior year equivalent figures to be disclosed for comparison but is not required in this, the first year of generation for the College as a reporting organisation.

Group Progress

A recent review within DCG completed in conjunction with appointed energy consultants (UPG) has allowed a number of objectives to be achieved resulting in an update of the following DCG documentation.

- Energy Report
- Carbon Action Plan
- Energy consumption Policy
- Behavioural Change plan

As a result of this process we have achieved the following:

- Measured the Group's total energy consumption (TEC),
- Measured the Group's emissions
- Created an energy policy
- Reviewed and updated the existing carbon management plan
- Created a behavioural change programme
- Conducted energy efficiency audits to identify savings opportunities

Recent Carbon Projects

The Group has prioritised investment in buildings and equipment that are energy sensitive. Recent projects include:

- Boiler replacements – Roundhouse Engine Shed, Stephenson Building
- Water Heater replacement – Halls of Residence – Broomfield Hall
- LED lighting -
 - Roundhouse Campus – External Car parks
 - Broomfield Hall Campus – Main Drive / External car parks
 - Joseph Wright Centre - stairwells / car park / Main atrium
- Plant Room upgrades across all sites – Pipework lagging and valve jackets
- Water saving management across a number of sites – Ureco water management installation
- End user monitoring and metering – Broomfield Hall Nursery / Johnson Building - DHU

In addition to this the Group look to increase the proportion of renewable energy where feasible on site by expanding and adding to the existing PV installations which are situated across the Hudson/Joseph Wright Centre, Ilkeston and Broomfield Hall Campuses, where possible exporting to grid where capacity and infrastructure allows.

A recent submission following a Low Carbon Skills funded feasibility study was made to the National Decarbonisation scheme but was unfortunately not accepted due to over subscription. The main focal point of this was to source and install an alternate heat provision on the Broomfield Hall campus due to the ongoing reliance on a Carbon heavy coal fired heating plant. As evident from the submitted data, this presents a disproportionate total when considering the metric tonnage output of CO₂e. The combined figure for Scope 1 emissions (4,586.42Tons) which is a combination of output from mains gas, liquid petroleum gas and coal reflects a contribution from coal in excess of 3000 tons.

The intensity ratio figure has been calculated using a combined staff total from payroll data attributable to DCSU (4),DCG services (18) and DCG (1127) employees as of the 8th Jan 2021

10. Disclosure of minimum information to be included on the corporation's website based on the above example		
Note that from the year 2020 to 2021, the previous year's data should also be reported for comparison purposes. Corporations may elect to show this information in 2019 to 2020 but this is not a requirement and it is not illustrated here.		
Greenhouse gas emissions and energy use data for the period 1 August 2019 to 31 July 2020 – UK		2019/20
Energy consumption used to calculate emissions (kWh)		
Energy consumption break down (kWh) (optional):		Kwh
Gas		3,422,855.42
Electricity		4,373,228.13
Transport fuel		181,736.77
Scope 1 emissions in metric tonnes CO₂e		
Gas consumption / LPG / Coal		4,586.42
Owned transport / Diesel / Petrol / Electric		52.22
Total scope 1		4,638.64
Scope 2 emissions in metric tonnes CO₂e		
Purchased electricity		1,066.56
Scope 3 emissions in metric tonnes CO₂e		
Business travel in employee owned vehicles / college reimbursed mileage claims		135.90
Total gross emissions in metric tonnes CO₂e		5,841.10
Intensity ratio		
Tonnes CO ₂ e per member of staff		1,149 5.08