CARBON ACCOUNTING

Sustainability Annual Report 2017

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SUSTAINABILITY ANNUAL REPORT 2017

CITB is a non-governmental public body (NDPB) and is aligning its environmental objectives with that of the Greening Government Commitments. This carbon accounting report has been compiled in line with the HM Treasury Public sector annual reports: sustainability reporting guidance 2017-18.

CITB has adjusted its accounting year to align with the financial rather than calendar year, thereby; this annual report covers fifteen months. For ease of comparison, the data has been split to show January to December 2017 and January to March 2018.

CITB has fixed it base year as 2014, as it was the first year for which it was considered to have reliable data that was typical in respect of its operations. The financial control approach has been applied.

After negotiations with Transport for London (TfL) and Crossrail, the contract to run the Tunnelling & Underground Construction Academy (TUCA) was transferred to PROCAT (Prospects College of Advanced Technology) on 9th January 2017, with CITB no longer responsible for the premises.

During 2017's consensus process, and the Government's ITB Review, clear demands to reform and streamline CITB were made. In November 2017, CITB outlined its Vision 2020: The Future CITB, details of its three year plan that will see CITB adopt a simpler, more streamlined way of working. The period of transition will result in work being outsourced and see a reduction in staff numbers and premises, as CITB moves towards relocating to one main office by 2020 that will affect its carbon footprint. In light of this, and to illustrate efficiency and enable more meaningful comparison over time, CITB will now start reporting on greenhouse gases per Full Time Employee (FTE).

CITB transitioned from ISO14001:2007 to ISO14001:2015 in December 2017. A new sustainability strategy is due for approval by the Executive Team in October 2018 that will set new objectives and targets, and align with the UN Sustainable Development Goals (SDG's).

Table 1. Greenhouse Gas (GHG) Emissions (tCO2e)

		2017	Jan - Mar 2018	2016	2015	2014 (Base year)
Scope 1	Fuel combustion	1,940	794	2,114	2,048	1,652
	Owned Transport[1]	872 (775)	165 (161)	913	1,035	802
	Fugitive emissions	-	-	-	-	-
Scope 2	Purchased electricity	1,006	307	1,277[2]	1,649	1,471
Scope 3	Business travel[3,4]	946	221	1,012	1,068	1,102
	Use of purchased materials (paper)[5]	27		41	21	30
	Waste disposal[6]	19,358	4,077	-	-	-
	Biomass	7	4	10	9	7
	Per FTE[7]	18				

TABLE 1 NOTES:

CITB does not carry out any physical or chemical processing and therefore this category has not been included in Scope 1.

[1] Data for CITB company-owned vehicles that use fuel cards has been included in the 2017/18 reporting. The figure in brackets is the original like for like data.

[2] Due to an error resulting from some double counting, the figure has been re-adjusted from the stated 1,821 tCO2e.

[3] As a comprehensive data set on fuel type is not yet available the Defra conversion factor applied (0.29672 kgCO2e per mile) relates to medium car unknown fuel.

[4] The tCO2e applied for air and rail travel are those calculated and supplied by Redfern (the travel management company).

[5] The data received was unable to be broken down per quarter and therefore the figures presented are for the full fifteen months. The conversion factor applied for previous years was 640 kgCO2e, this has been updated to reflect the proportion of closed loop paper (7 tonnes @ 795.5 kgCO2e) and primary source (23 tonnes @ 928.6 kgCO2e).

[6] Tonnage of waste disposal had not been converted in previous years.

[7] During the reporting period, the average number of staff directly and temporarily employed by CITB (expressed in full-time equivalents) was 1,305. The tCO2e has been expressed per FTE based on the 12 month period January to December 2017 to allow for future comparison on a 12 month basis.

FUEL COMBUSTION

CITB has seen a reduction in GHG emissions for fuel combustion (namely: Natural Gas, LPG and Kerosene) although a third of the difference is likely to be a result of the transfer of TUCA which accounted for **53 tonnes** in 2016.

OWNED TRANSPORT

CITB has seen a **5%** decrease in tCO2e during the 12 months of 2017 compared with 2016 with the inclusion of additional data on company cars using fuel cards. Based on a like for like basis, it shows a decrease of **16%** in tCO2e.

As CITB continues to balance its desire to have lower CO2 vehicles (less than 130g/km) with still providing enough choice to encourage car allowance staff out of potentially less environmentally friendly vehicles into a company car, it will review its car policy in 2018. The annual report from Lex (CITB's car leasing company) for 2017, shows CITB had **284 vehicles** of which **251** (**88%**) were CO2 band 110gkm or less.

FUGITIVE EMISSIONS

In line with the legislation 'F-gas Leak Changes' introduced in January 2017 for mandatory documented leak checks for air conditioning and refrigeration equipment, CITB has improved data information.

All air con units at CITB have a carbon loading of less than **30 tonnes** and although require one inspection per year, they are inspected twice a year.

In the future, it is hoped that CITB shall be able to gather the 'top up' data from the service provider and begin reporting.

PURCHASED ELECTRICITY

CITB's main offices at Bircham Newton have the highest electricity usage of all its sites. Electricity purchased for the site is from a renewable source from British Gas, however, it has not been possible to attain the evidence of supply, and therefore no percentage reduction has been able to be calculated and applied.

BUSINESS TRAVEL

CITB has seen an overall decrease in business travel of **7%** in tCO2e emissions during the 12 months of 2017 compared with 2016.

CITB has seen a decrease per quarter since April 2017 in air travel; and a decrease per quarter in rail since September 2017, with the trend continuing into 2018. Grey fleet usage (i.e. vehicles not owned by the company but used for business travel) has also decreased from **770** tCO2e to **702** tCO2e during 2017.

CITB introduced Skype for Business during 2016. It gives instant messaging (IM), audio and video calls, online meetings, availability (presence) information, and sharing capabilities for all staff. This has resulted in a reduced need for staff to travel to meetings as they can now conduct Skype meetings from wherever they are in the country.

WASTE

2016 reported an increase in waste arisings due to the closure of one CITB location resulting in the recycling of some waste concrete, so for this reason, it is not possible to do a yearly comparison. If compared to 2015, waste arisings has only seen a decrease in tonnage of **1.8%**. The tonnage recycled has decreased, with an increase in the amount sent to an energy from waste (EFW) plant. Material sent to landfill was hazardous in nature and disposed of at a registered site.

CITB provides containers in the offices for staff to recycle various items. Currently all residual waste is sent to a EFW plant. The current waste contract is due for renewal in October 2018. In line with the greening government commitments, CITB will seek to increase its percentage recycled and seek solutions as part of its tendering process i.e. whether the waste could be sent to a Materials Recycling Facility (MRF) to aid further recycling. CITB shall also review what progress can be made in assisting with a breakdown in the costs for each waste stream.

Table 2. Greenhouse Gas (GHG) Emissions (tCO2e)

Type of waste	2017 (t)	Cost £ 2017	2018 Q1 (t)	Cost £Q1 2018	2016 (t)	Cost £ 2016	2015 (t)	Cost £ 2015
Waste arising (Not including ICT waste)	805	139,739	173	33,815	1221	156,799	820	110,042
Paper waste[1,2]	83	14,948	14	4,050	56	9,990	66	11,807
Total waste arising	888	154,687	187	37,865	1276	166,789	886	121,849
Waste recycled	209	-	67	-	725	-	441	-
Paper recycled	83	-	14	-	56	-	66	-
Waste composted	0	-	0	-	0	-	0	-
Waste incinerated with energy recovery	498	-	92	-	488	-	379	-
Waste incinerated without energy recovery	0	-	0	-	0	-	0	-
Waste to landfill	15	-	0	-	7	-	0	-

TABLE 2 NOTES:

[1] Due to a switch in waste contractor part way through the year, tonnage data is unavailable for January 2017 – July 2017 for office paper, plastics and can recycling. The average for the months August 2017 to March 2018 has been applied to the months where tonnage data was unavailable.

[2] The contract cost for paper waste recycling also includes the collection for office plastics and metal cans.

REUSE AND RECYCLING OF REDUNDANT ICT EQUIPMENT

CITB continues to update its technology and part of the programme is the annual refresh of laptops and personal computers. Those older than three years are then considered for replacement with a new model.

There is a Nil cost for disposal as the service is free of charge.

Table3. Reuse and recycling of redundant ICT Equipment

		2017	Cost £ 2017	2016
	Total number of electrical and electronic items disposed of. Item type is listed below.	1267	Nil	1237
	Printers	243		243
	Laptops	312		225
	PCs	138		110
	Screens	192		182
	General electrical items, ranging from sat navs, desk phones to networking equipment and cabling	400		433
	Reused	25% (311 items		21% (257 items)
	Recycled	75% (914 items)		79% (980 items)

TABLE 3 NOTES:

No items were sent for disposal during January – March 2018.

FINITE RESOURCE CONSUMPTION

Table 4. Finite resource consumption

			2017	2018 Jan - Mar	2016	2015	2014
Non-financial indicators	Energy	Electricity (kwh)	2,861,827	874,412	3,098,068[1]	3,568,430	2,980,844
		Gas, natural (kwh)	1,310,064	570,647	1,459,157	1,727,254	51,194[2]
		Gas, LPG (litres)	12,359	4,462	12,460	23,686	25,200
		Oil Kerosene (litres)	663,488	269,500	721,511	668,767	632,271
		Biomass used (tonnes	144	67.50	194	180	155
	Finite	Water (m3)	25,993	4610	27,137	30,432	25,819
		Paper (tonnes)	30		64	33	37
Financial indicators (£)	Energy	Electricity	455,246	121,767	558,738	582,329	585,611
		Gas, natural and LPG	71,980	24,199	56,010	117,924	53,729
		Oil Kerosene	320,885	159,414	232,619[3]	279,130	400,964
		Biomass used	13,984	6,555	17,028	15,805	12,777
		Water[4]	73,656	4610	95,612	69,585	87,370
	Finite	Paper[5]	29,352		55,934	36,202	45,421

TABLE 4 NOTES:

Due to some data being unavailable, a number of estimates had to be made.

[1] Due to an error resulting from some double counting, the figure has been re-adjusted from 4,418,386.

[2] 2014 data was recorded in M3 and not converted to kWh

[3] The net cost for Kerosene was given in 2016 (£193,849) and has been adjusted to give the gross figure (including VAT).

[4] The invoice totals include an element for sewage. Some billing data was missing and therefore estimates have been applied.

[5] The data received was unable to be broken down per quarter and therefore the figures presented are for the full fifteen months.

ENERGY

If the electricity usage (**432,372 kWh**) for TUCA in 2016 was applied, it shows CITB has seen an increase in electricity usage in 2017. If the same is applied for gas used at TUCA in 2016 (**286,955 kWh**), it shows CITB has seen an increase in natural gas usage in 2017. The amount of LPG used at the Bircham site shows no significant decrease.

Oil Kerosene is used for heating and the provision of hot water in the Bircham offices. Actual data for January to September 2017 was inadvertently destroyed and therefore the actual litres delivered has been applied for January to December 2017, which will be higher than actually used. Usage data has been used for January to March 2018. The financial data has been taken from the invoices for delivery.

The swimming pool (a high user of kerosene) was shut down in 2017 for approximately 12 weeks from mid-July to mid-October for a re-wire, and therefore the 2017 figures will not be comparable to 2016 and is likely to account for the reduction in litres used in 2017.

WATER

Due to the high number of estimates made with regard to water usage, it is difficult to be sure that a reduction has taken place. In future, the opportunities for smart metering will be explored to help provide greater accuracy in consumption and billing data.

PAPER

In the absence of paper consumption data in previous years, the volume of paper purchased has been used. 2017 shows a significant reduction compared to 2016; and lowest level since data has been recorded.

CITB introduced follow-you printing in November 2017. This holds documents in a secure print server until the users authenticate themselves at the network printer of their choice. This enables greater flexibility and control over printing. Documents can be cancelled at the printer helping reduce unnecessary wastage, and sharing usage statistics with staff can help drive behaviour change. In future years, we hope to start reporting this data.

CLIMATE CHANGE ADAPTATION

CITB has Business Continuity Plans in place, in the event of 'an incident' affecting business operations. In February/March 2018, the Bircham Newton site was inaccessible during the cold spell, nicknamed 'the Beast from the East', where heavy snowfall made roads impassable for a number of days. The Business Continuity Plans were put into operation and a post incident review was undertaken, with various actions recommended to further improve the plans. A risk assurance group reviews the plans and reports to the Audit and Risk Committee, with escalation to the Executive Team if needed.

The future plans to move to one centrally located head office may help to mitigate against future weather events through greater accessibility as a result of better transport infrastructure. There is the opportunity for CITB to apply a risk based framework for assessing climate vulnerability as part of its ongoing work.

BIODIVERSITY AND THE NATURAL ENVIRONMENT

The majority of CITB offices are located in commercial areas and leased, and offer limited opportunities to promote biodiversity. CITB's main office is currently situated in rural Norfolk at Bircham Newton, and has a variety of habitats and species.

CITB has no formal biodiversity action plan but does maintain maintenance regimes recommended by key experts that monitor various species on the site; namely, bats, owls and oyster catchers.

SUSTAINABLE PROCUREMENT INCLUDING FOOD AND CATERING SERVICES

Sustainability is a key consideration in each procurement exercise undertaken by CITB where expected values are likely to be in excess of **£10,000** ex VAT. Where use of government frameworks is determined to offer the best value for money solution for CITB, these will have already included consideration for sustainability.

Where CITB will undertake the procurement, the Procurement & Commissioning team will explore with customers the specific business requirements and determine what elements pertaining to sustainability apply. CITB have developed a five-point model to refer to when reviewing sustainability with customers.

A new sustainability strategy will be agreed by the Executive in October 2018 that will set targets and actions. Procurement will play an important role in achieving some of the targets, in particularly in relation to waste and energy.

Sodexo currently holds the contract for food and catering services.

SUSTAINABLE CONSTRUCTION

CITB did not undertake any construction work, only re-roofing on some buildings at its Bircham site during the reporting year. Any routine maintenance that generated waste was disposed of in line with the waste hierarchy.

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