

Consumption or Production Totals	Table 1: Campus emissions inventory 2010-2018									Performance years						Sources		
	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024		FY2025	
Consumption or Production Totals																		
Data for Scope 1: Direct Emissions																		
Coal (short tons) For UK Heating Plants	31,241.1	33,362.4	25,032.5	15,808.4	9,970.6	10,217.9	8,825.7	8,529.8	5,562.9	-	-	0	0	0	0	0	-	
Natural Gas Usage (MCF) For UK Heating Plants	552,825.8	640,612.9	735,922.7	1,079,099.6	1,275,344.8	1,262,003.7	1,137,696.5	1,109,767.9	1,232,560.5	-	-	0	0	0	0	0	-	
Natural Gas Usage (MCF) Loop Gas	109,714.2	121,081.1	106,879.7	113,016.4	102,596.2	96,309.3	88,442.5	77,340.1	73,436.5	-	-	0	0	0	0	0	-	
Natural Gas Usage (MCF) Misc. PPD Gas	13,664.1	14,307.3	12,687.2	17,056.4	23,173.4	22,065.8	21,732.2	25,919.3	27,268.3	-	-	0	0	0	0	0	-	
Natural Gas Usage (MCF) 3rd Party	11,306.5	11,306.5	11,306.5	11,306.5	12,667.4	25,276.5	33,252.7	36,282.9	42,668.6	178.6	-	0	0	0	0	0	-	
Gasoline (Gal) for Transportation	196,034.9	199,074.2	194,801.2	195,729.1	195,326.4	194,852.2	186,088.7	196,882.4	205,631.7	-	-	0	0	0	0	0	-	
Diesel (Gal) for Transportation	70,798.8	71,381.1	73,607.5	76,382.9	75,067.8	70,266.5	63,408.9	54,513.4	46,083.5	-	-	0	0	0	0	0	-	
Biodiesel B5 (Gal) for Transportation	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0	-	
Data for Scope 2: Purchased Utilities																		
Electricity (kWh) UK Loop	298,106,400.0	312,362,400.0	321,349,200.0	311,404,800.0	323,712,000.0	314,851,200.0	327,235,200.0	332,500,800.0	310,862,400.0	-	-	0	0	0	0	0	-	
Electricity (kWh) Misc. PPD	15,365,414.0	15,849,949.0	16,712,996.0	16,491,478.0	16,868,431.0	17,150,243.0	17,353,901.0	17,353,901.0	16,046,756.6	-	-	0	0	0	0	0	-	
Electricity (kWh) 3rd Party	7,105,259.5	7,105,259.5	7,008,023.5	6,673,079.5	8,767,464.0	13,878,409.5	14,733,118.0	19,323,894.0	19,238,228.3	-	-	0	0	0	0	0	-	
Data for Scope 3: Indirect Emissions																		
Air Travel: Business (miles)	22,225,530.0	23,852,639.0	24,023,691.0	25,546,808.3	27,069,925.5	28,593,042.8	30,116,160	34,474,285	37,049,726	-	-	0	0	0	0	0	-	
Air Travel: Business-Short Haul	-	-	-	-	-	-	811,494.0	871,598.0	1,103,989.0	-	-	0	0	0	0	0	-	
Air Travel: Business-Medium Haul	-	-	-	-	-	-	15,160,534.0	14,627,127.0	15,845,345.0	-	-	0	0	0	0	0	-	
Air Travel: Business-Long Haul	-	-	-	-	-	-	14,144,132.0	18,975,560.0	20,100,392.0	-	-	0	0	0	0	0	-	
Air Travel: Education Abroad (miles)	2,874,188	5,848,402	8,138,538	7,949,920	10,103,608	10,726,494	10,443,128	11,698,782	12,305,375	-	-	0	0	0	0	0	-	
Campus Commuting: Employees (# people)	12,122	12,825	12,777	12,283	13,056	13,172	13,118	14,280	15,004	-	-	0	0	0	0	0	-	
Campus Commuting: Students (# people)	10,500	10,833	9,955	10,025	9,856	8,998	8,049	8,385	9,175	-	-	0	0	0	0	0	-	
Landfill Waste (tons)	9,816	10,125	8,512	7,831	7,895	8,026	8,915	8,328	9,727	-	-	0	0	0	0	0	-	
Wastewater (gall)	454,991,723	474,990,486	429,480,126	445,018,631	448,309,644	414,984,384	417,079,089	435,085,762	375,196,103	0	0	0	0	0	0	0	-	
Emissions Factors																		
Factors for Scope 1: Direct Emissions																		
Coal (MTCO2e/short ton) For UK Heating Plants	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	2.476639753	Per Andrea Smith, can use 210lb CO2/MMBTU, within close percentage of EPA Mandatory Reporting Rule Per Mike Duffy, close approximation of "As Received" energy content as reported to EPA
Coal Emissions Rate (lb CO2/MMBTU)	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	210	
Coal Heat Rate (BTU/lb coal)	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	
Natural Gas Usage (MTCO2e/MMBTU) For UK Heating Plants	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	Per Andrea Smith, use same emissions factor for all natural gas as we report on the large boilers
Natural Gas Usage (MTCO2e/MMBTU) Loop Gas	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	Per Andrea Smith, use same emissions factor for all natural gas as we report on the large boilers
Natural Gas Usage (MTCO2e/MMBTU) Misc. PPD Gas	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	Per Andrea Smith, use same emissions factor for all natural gas as we report on the large boilers
Natural Gas Usage (MTCO2e/MMBTU) 3rd Party	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	0.054431643	Per Andrea Smith, use same emissions factor for all natural gas as we report on the large boilers
Natural Gas Emissions Rate (lb CO2/MMBTU)	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	120	Per Andrea Smith, can use 120lb CO2/MMBTU, within close percentage of EPA Mandatory Reporting Rule
Natural Gas Heat Conversion (MMBTU/MCF)	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	1.037	
Gasoline (MTCO2e/Gal) for Transportation	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	0.009097265	From Clean Air Cool Planet Calculator "EF_eCO2"
Diesel (MTCO2e/Gal) for Transportation	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	0.010347846	From Clean Air Cool Planet Calculator "EF_eCO2"
Biodiesel B5 (MTCO2e/Gal) for Transportation	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	0.009797437	From Clean Air Cool Planet Calculator "EF_eCO2"
Factors for Scope 2: Purchased Utilities																		
Electricity (MTCO2e/kWh) UK Loop	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	Calculated from EPA Coal and NG values for KU Grid Mix by AEI, includes 5.82% T&D loss for KY
Electricity (MTCO2e/kWh) Misc. PPD	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	Calculated from EPA Coal and NG values for KU Grid Mix by AEI, includes 5.82% T&D loss for KY
Electricity (MTCO2e/kWh) 3rd Party	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	0.0010091	Calculated from EPA Coal and NG values for KU Grid Mix by AEI, includes 5.82% T&D loss for KY
Factors for Scope 3: Indirect Emissions																		
Air Travel: Business (MTCO2e/mile)	0.000159697	0.000159697	0.000159697	0.000159697	0.000159697	0.000159697	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	0.000253571	See "Air Miles" Tab for more granular detail
Air Travel: Business-Short Haul	-	-	-	-	-	-	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	0.000144401	
Air Travel: Business-Medium Haul	-	-	-	-	-	-	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	
Air Travel: Business-Long Haul	-	-	-	-	-	-	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	
Air Travel: Education Abroad (MTCO2e/mile)	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	0.000168684	
Campus Commuting: Employees (MTCO2e/person)	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	1.798365153	Calculated by Shane Tedder based on known permit sales and census data
Campus Commuting: Students (MTCO2e/person)	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	0.490904	Calculated by Shane Tedder based on known permit sales and census data
Landfill Waste (MTCO2e/short ton)	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	From Clean Air Cool Planet Calculator for Solid Landfill Waste, No CH4 recovery
Wastewater (MTCO2e/gal)	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	0.000000516	From Clean Air Cool Planet Calculator for Wastewater Central Treatment: Anaerobic Digestion
Calculated Emissions (mtCO2e)																		
Emissions for Scope 1: Direct Emissions																		
Coal for UK Heating Plants	77,373	82,627	61,996	39,152	24,694	25,30												