

## Appendix C: Summary carbon emissions - buildings

Buildings, are the key source of accounted emissions, primarily from gas and electricity consumption. Schools account for 64% of the total buildings data. A summary of the reductions in emissions from buildings, achieved since 2015/16 is indicated below:

Fuel source	Reduction 2015/16 – 2023/24	
	%	tCO2e
Gas	31% reduction	5,210.5
Oil	74.1% reduction	1,125.2
Electricity	61.74% reduction	9,446.5

tCO2e – tonnes of carbon dioxide equivalent

The net zero transition of buildings is a long term pathway. While a linear pathway would equate to an approximate transition from gas to clean energy of 6 council buildings a year between now and 2045. In practical terms, there are a range of complex factors that will influence the pace and scale of achievable reductions, including funding mechanisms, capacity, replicability, changing legislative requirements and standards.

The table below indicates average emissions by building type, although there will be considerable variations in real terms based on building size, level of occupancy, energy efficiency, heat source, building fabric, if building management systems are in place and available facilities.

2023/24	Average per Building*	Annual Totals 2023/24			
		Electric	Gas	Oil	District Heating**
	tCO2e	tCO2e	tCO2e	tCO2e	Number
Schools secondary	449	1,465	3,678	0	3
Schools primary	132	1,790	4,118	135	5
Schools nursery	20	31	13	0	1
Depots	53	379	724	11	0
Libraries	19	89	178	0	0
Community Centres	33	168	668	0	1
Office (large)	694	918	0.19	0	2
Office (small)	12	60	78	0	0
Museums	126	48	111	0	0
Day/Family Centres	36	60	142	0	2
Parks & leisure facilities	80	103	102	258	2
Car Park/ Park & Ride	18	146	0	0	0
Community Hall/ Learning Centre	72	50	348	0	1
Miscellaneous	-	547	1,355	0	0

\*Average total annual energy and water per building type

\*\*District heating supports the energy transition – data indicates number of premises connected

### Buildings data, school estate tCO2e (totals) 2023-24

Site Name	Pupil Roll Data 2023 <sup>1</sup>	22-23 tCO2e	23-24 tCO2e
<b>Primary</b>			
Abbotswell Primary School	291	132	134
Airyhall Primary School	326	114	115
Ashley Road Primary School	421	93	93
Braehead Primary School	289	101	115

Bramble Brae Primary School	170	57	59
Brimmond Primary School	521	189	199
Broomhill Primary School	452	100	101
Charleston Primary School	267	101	97
Cornhill Primary School	389	239	190
Countesswells Primary School	239	39	166
Culter Primary School	290	123	125
Cults Primary School	578	215	181
Danestone Primary School	214	51	50
Dyce Primary School	390	298	291
Fernielea Primary School	268	121	117
Ferryhill Primary School	398	94	92
Forehill Primary	317	40	41
Gilcomston Primary School	205	129	129
Glashieburn Primary School	195	72	73
Greenbrae Primary School	369	90	99
Greyhope School & Community Hub		-	192
Hanover Street School	249	112	132
Hazlehead Primary School	396	106	108
Heathryburn School	342	114	116
Holy Family RC Primary School	147	51	56
Kaimhill Primary	356	104	111
Kingsford Nursery Primary School	321	54	265
Kingswells Primary School	396	163	165
Kirkhill Primary School	295	118	98
Kittybrewster Primary School	316	123	138
Loriston Primary School	447	72	82
Manor Park School	244	124	135
Middleton Park Primary School	151	36	36
Mile End Primary School	514	171	174
Milltimber Primary (new)	309	166	189
Milltimber Primary School (old)	-	10	0.5
Muirfield Primary	161	121	117
Quarryhill Primary School	304	103	108
Riverbank Primary School	413	99	93
Scotstown Primary School	201	125	122
Seaton Primary School	236	106	74
Skene Square Primary School	353	157	153
St Josephs RC Primary School	383	156	155
St Peters RC School	205	123	130
Stoneywood Primary School	454	157	180
Sunnybank Primary School	327	190	203
Tullos Primary School	367	482	477
Walker Road Primary School	308	149	63
Westpark Primary School	218	137	166
Woodside Primary School	380	195	185
<b>Secondary</b>			
Aberdeen Grammar School	1103	683	785
Bridge of Don Academy	677	545	533
Bucksburn Academy	838	335	389
Cults Academy	1,076	632	652
Dyce Academy	531	459	485
Harlaw Academy	912	507	506
Hazlehead Academy	1,032	321	338
Lochside Academy	1,068	816	793
Northfield Academy	793	401	402
Oldmachar Academy	843	361	403
St Machar Academy	860	402	516