



	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD															
1	Emissions from combustion, venting, flaring, and fugitive methane																												Entity emissions from combustion, venting, flaring, and fugitive methane																											
2	Richard Heede Climate Accountability Institute 7-Jul-19														Richard Heede Climate Accountability Institute 7-Jul-19																																									
3	BP, UK																																																							
4																																																								
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8																																																								
9																																																								
10	1890s														1900s														1910s														1920s													
11	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925															
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46																																																								
47																																																								
48	1,019	1,033	1,081	1,198	1,198	1,304	1,359	1,370	1,356	1,403	1,488	1,535	1,612	1,700	1,861	1,957	2,026	2,074	2,261	2,286	2,433	2,594	2,869	2,744	2,876	3,001	3,060	3,221	3,459	3,115	3,071	3,298	3,503	3,430	2,953	3,415	2,942	3,096	3,554	3,525	3,573															
49	278	282	295	327	327	356	371	374	370	383	406	419	440	464	508	534	553	566	617	624	664	708	783	749	785	819	835	879	944	850	838	900	956	936	806	932	803	845	970	962	975															
50																																																								
51	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.06%	0.07%	0.07%	0.08%	0.09%	0.13%	0.19%	0.35%	0.47%	0.50%	0.57%	0.76%														
52																																																								
53																																																								
54	6.4	6.4	6.8	7.4	7.5	8.0	8.3	8.4	8.2	8.5	9.0	9.3	9.7	10.2	11.2	11.8	12.1	12.4	13.6	13.7	14.4	15.5	17.1	16.3	17.0	17.8	18.1	19.1	20.4	18.4	18.1	19.5	20.6	20.3	17.9	20.6	17.7	19.0	21.3	21.1	21.2															
55																																																								
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	CE	CF	CG	CH	CI	CJ	CK	CL	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP	DQ		
1	Entity emissions from combustion, venting, flaring, and fugitive methane																																								
2	ve methane																																								
3	Richard Heede Climate Accountability Institute 7-Jul-19																																								
4																																									
5																																									
6																																									
7	BP, UK										BP, UK																														
8																																									
9																																									
10						1930s					1930s					1940s					1950s					1960s															
11	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964		
12																																									
13																																									
14																																									
15	34	41	43	42	44	37	29	25	27	29	34	42	41	39	37	37	45	51	68	80	94	100	120	119	165	150	131	151	159	200	218	215	247	257	288	304	326	342	387		
16							1	1	1	1	1	2	2	2	2	3	3	3	4	4	5	5	7	9	10	13	15	18	19	21	26	29	30	33	42	45	49	53	61		
17																																									
18	34	41	43	42	44	37	30	25	28	30	36	43	43	41	39	39	48	54	72	84	99	106	127	128	175	163	146	168	178	221	243	244	277	290	338	356	384	404	457		
19																																									
20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
21	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	2	2	2	3	3	3	3	4	4	5	5	5	5	5	6	
22	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	3	3	3	3	3	3	
23	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	2	
24	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
25	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	3	3	4	4	4	5	5	6	7	7	8	8	9	10	11	11	13		
26																																									
27																																									
28																																									
29	34	41	43	43	45	37	30	26	29	31	36	44	43	42	40	40	49	56	73	86	101	108	130	131	179	167	150	173	183	227	250	251	284	298	347	366	394	415	470		
30																																									
31																																									
32																																									
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
34	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
37																																									
38																																									
39	2	2	2	2	2	2	1	1	2	2	2	2	2	2	2	2	3	4	4	5	5	6	6	9	8	7	8	9	11	12	12	13	14	15	16	18	18	21			
40	-	-	-	-	-	-	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	2	2	3	4	4	5	5	6	7	8	8	9	12	12	14	15	17	
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
42	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	5	5	6	7	8	9	12	12	11	13	14	17	19	20	22	23	28	30	32	34	39			
43																																									
44																																									
45	36	44	46	45	47	39	32	28	30	33	39	47	46	45	43	43	53	59	78	91	108	115	139	140	191	179	161	186	197	244	269	270	306	321	375	396	426	449	509		
46																																									
47																																									
48	3,606	3,891	3,906	4,195	3,855	3,441	3,104	3,276	3,565	3,759	4,141	4,430	4,188	4,364	4,760	4,884	4,914	5,097	5,068	4,254	4,536	5,104	5,383	5,199	5,976	6,475	6,577	6,742	6,834	7,490	7,977	8,318	8,538	8,986	9,407	9,453	9,842	10,376	10,974		
49	984	1,062	1,066	1,145	1,052	939	847	894	973	1,026	1,130	1,209	1,143	1,191	1,299	1,333	1,341	1,391	1,383	1,161	1,238	1,393	1,469	1,419	1,631	1,767	1,795	1,840	1,865	2,044	2,177	2,270	2,330	2,452	2,567	2,580	2,686	2,832	2,995		
50																																									
51	0.95%	1.06%	1.11%	1.02%	1.16%	1.09%	0.98%	0.79%	0.80%	0.82%	0.88%	1.00%	1.04%	0.96%	0.84%	0.82%	1.00%	1.09%	1.44%	2.02%	2.23%	2.12%	2.42%	2.52%	3.00%	2.58%	2.28%	2.57%	2.68%	3.03%	3.13%	3.02%	3.33%	3.32%	3.69%	3.87%	4.01%	4.00%	4.28%		
52																																									
53																																									
54	21.2	23.0	22.8	24.4	22.3	19.9	17.9	18.8	20.4	21.0	23.3	24.8	23.4	24.8	26.2	27.0	27.0	27.4	26.9	23.5	24.7	27.6	29.2	28.1	30.4	32.2	32.7	33.1	33.1	35.9	37.7	39.7	40.9	42.7	44.6	44.3	45.1	47.1	49.4		
55																																									
56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01		
57																																									
58																																									
59																																									
60																																									
61																																									

	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV	EW	EX	EY	EZ	FA	FB	FC	FD		
1	<b>Entity emissions from combustion, venting, flaring, and fugitive methane</b>																									<b>Entity emissions from combustion</b>															
2																																									
3																																									
4	Richard Heede Climate Accountability Institute 7-فبراير-19																																								
5																																									
6																																									
7	<b>BP, UK</b>																																								
8																																									
9																																									
10	1960s					1970s									1980s									1990s																	
11	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003		
12																																									
13																																									
14																																									
15	411	459	499	549	606	692	749	816	818	768	641	647	669	775	678	560	542	534	511	492	467	440	448	369	351	331	313	301	302	301	291	295	293	313	315	261	262	274	287		
16	66	71	76	82	94	99	102	107	105	97	89	89	89	88	87	79	80	75	72	78	81	79	82	89	108	110	114	113	114	119	122	132	131	149	118	148	168	170	168		
17	12	19	20	19	23	23	20	22	22	18	18	19	19	15	59	44	44	45	44	57	56	59	58	56	55																
18	490	549	595	650	723	814	872	945	946	883	748	755	776	877	825	684	666	655	628	628	604	578	588	514	514	441	427	414	416	420	413	426	425	462	434	410	430	457	470		
19																																									
20	2	2	2	2	2	3	3	3	3	3	2	2	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
21	7	7	8	9	10	11	12	13	13	12	10	10	11	12	11	9	9	9	8	8	7	7	7	6	6	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	5
22	4	4	4	5	5	6	6	6	6	6	5	5	5	5	5	5	5	4	4	4	4	5	5	5	5	6	6	7	6	7	7	7	8	8	9	7	8	10	10	10	
23	2	2	2	2	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	3	4	5	5	5		
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	14	15	17	18	20	22	24	26	25	24	20	21	21	23	21	18	18	17	16	17	16	16	16	16	15	16	16	16	16	16	16	16	17	17	19	17	18	20	20	20	
26																																									
27																																									
28																																									
29	503	564	611	668	743	836	896	971	971	906	769	775	797	900	846	702	684	672	644	644	621	593	604	529	531	457	443	430	432	437	429	444	442	481	450	428	450	477	491		
30																																									
31																																									
32																																									
33	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
34	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2	0.2	0.2	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.1	0.1
36	1	2	2	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
37																																									
38																																									
39	22	25	27	30	33	37	40	44	44	41	35	35	36	42	37	30	29	29	28	27	25	24	24	20	19	18	17	16	16	16	16	16	16	16	17	17	14	14	15	15	
40	18	20	21	23	26	27	28	30	29	27	25	25	24	24	22	21	20	22	22	22	22	23	25	30	30	32	31	31	33	34	36	36	41	33	41	47	47	46	46		
41	1	2	2	2	3	3	2	2	3	2	2	2	2	2	7	5	5	5	5	6	6	7	7	6	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
42	42	46	50	54	61	67	71	76	76	70	61	62	63	68	67	57	56	55	53	55	54	52	53	51	55	48	48	47	48	49	49	52	52	58	50	55	61	63	64	64	
43																																									
44																																									
45	545	611	661	723	804	903	966	1,047	1,047	976	830	837	860	968	914	759	740	726	697	699	675	645	658	580	586	505	492	477	479	486	478	496	494	539	500	483	511	540	554		
46																																									
47																																									
48	11,467	12,046	12,435	13,064	13,847	14,847	15,411	16,028	16,898	16,928	16,827	17,806	18,356	18,563	19,595	19,385	18,788	18,629	18,550	19,222	19,794	20,397	20,910	21,682	22,155	22,183	22,431	22,193	22,154	22,539	23,012	23,528	23,917	23,983	23,932	24,560	25,139	25,492	26,861		
49	3,129	3,288	3,394	3,565	3,779	4,052	4,206	4,374	4,612	4,620	4,592	4,859	5,010	5,066	5,348	5,291	5,127	5,084	5,063	5,246	5,402	5,567	5,707	5,917	6,046	6,054	6,122	6,057	6,046	6,151	6,280	6,421	6,527	6,545	6,531	6,703	6,861	6,957	7,331		
50																																									
51	4.39%	4.68%	4.92%	5.12%	5.37%	5.63%	5.81%	6.06%	5.75%	5.35%	4.57%	4.35%	4.34%	4.85%	4.32%	3.62%	3.64%	3.61%	3.47%	3.35%	3.14%	2.91%	2.89%	2.44%	2.40%	2.06%	1.98%	1.94%	1.95%	1.94%	1.86%	1.89%	1.85%	2.01%	1.88%	1.74%	1.79%	1.87%	1.83%		
52																																									
53																																									
54	51.3	53.4	54.7	57.2	60.6	60.3	60.6	62.7	66.6	66.2	65.5	69.8	70.3	72.0	73.3	72.0	68.1	69.1	69.2	70.4	72.9	74.2	75.8	78.6	79.9	80.7	81.2	80.4	78.7	79.1	81.1	83.2	83.7	83.0	82.6	85.4	86.9	88.8	94.5		
55																																									
56	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	
57																																									
58																																									
59																																									
60																																									
61																																									

	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	JK		
1																																			
2	h, venting, flaring, and fugitive methane																																		
3	Richard Heede																																		
4	Accountability Institute																																		
5	7-Jul-19																																		
6																																			
7																																			
8	BP, UK																																		
9																																			
10	2000s										2010s										Cumulative	Entity emissions	to 2015	to 2016	to 2017	to 2018									
11	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	MtCO2e	Entity emissions	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	MtCO2e	
12	(except where noted)																	V (V = verified)																	
13																																			
14																		Entity CO2 emissions	kg CO2/tCO2	to 2015	to 2016	to 2017	to 2018												
15	343	347	336	327	326	344	322	292	279	273	261	277	278	306	297	V	28,146	V	Oil & NGLs	MtCO2	linked	3.83	27,265	27,543	27,849	28,146									
16	166	164	164	159	163	165	164	127	144	138	138	139	138	152	169	V	6,852	V	Natural Gas	MtCO2	linked	15.94	6,394	6,531	6,683	6,852									
17																V	918	V	Coal	MtCO2	linked	4.03	918	918	918	918									
18	509	512	500	486	488	509	486	420	423	411	400	417	416	458	466	V	35,917	V	Combustion total	MtCO2	sum		34,577	34,993	35,451	35,917									
19																																			
20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	108	Oil & NGLs: Venting	MtCO2	calculated	3.83	104	106	107	108											
21	5	6	5	5	5	5	5	5	4	4	4	4	4	5	5	449	Oil & NGLs: Flaring	MtCO2	calculated	15.94	435	439	444	449											
22	9	9	9	9	9	9	9	7	8	8	8	8	8	9	10	392	Own fuel use	MtCO2	calculated	57.26	366	374	383	392											
23	5	5	5	5	5	5	5	4	4	4	4	4	4	4	5	196	Natural Gas: Venting	MtCO2	calculated	28.53	182	186	191	196											
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	Natural Gas: Flaring	MtCO2	calculated	1.74	11	11	12	12											
25	21	21	21	20	21	21	21	17	18	17	17	18	18	19	21	1,156	Venting & Flaring total	MtCO2	sum		1,099	1,116	1,136	1,156											
26																																			
27																																			
28																																			
29	530	533	521	506	509	530	506	436	441	428	417	434	433	477	487	V	37,073	V	Cement	MtCO2	linked														
30																																			
31											summed scope 1 CO2 & CH4 (for UCS carbon intensity project, Jan17)										Total CO2 emissions	MtCO2	sum	row 18+24+26	35,676	36,109	36,586	37,073							
32	84	82	83	86	83	68	73	70	70	71	71	78	83	54	V	Entity methane emissions	MtCH4	calculated	1.92	52	53	54	54												
33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	68	Methane: Oil & NGLs	MtCH4	calculated	9.88	63	65	66	68											
34	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	4	Methane: Natural Gas	MtCH4	calculated	4.03	4	4	4	4											
35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	V	Methane: Coal	MtCH4	calculated		119	121	123	126										
36	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		Total methane emissions	MtCH4	sum																
37																																			
38																																			
39	18	19	18	18	18	19	17	16	15	15	14	15	15	17	16	1,516	V	Entity methane emissions	MtCO2e	calculated	28	1,468	1,483	1,500	1,516										
40	46	45	45	44	45	46	45	35	40	38	38	39	38	42	47	1,895	Methane: Oil & NGLs	MtCO2e	calculated	28	1,768	1,807	1,849	1,895											
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	Methane: Natural Gas	MtCO2e	calculated	28	104	104	104	104											
42	64	64	63	62	62	64	63	51	55	53	52	53	53	58	63	3,515	V	Methane: Coal	MtCO2e	calculated		3,341	3,394	3,452	3,515										
43																																			
44																																			
45	595	597	584	568	571	595	569	487	496	481	469	488	486	536	549	V	40,588	V	Total attributed emissions	MtCO2e	sum		39,017	39,503	40,039	40,588									
46																																			
47																																			
48	28,193	29,253	30,288	30,882	31,881	31,525	33,068	34,359	34,921	35,213	35,511	35,465	35,677	36,155	37,131	V	1,611,433	V	CDIAC CO2 emissions	MtCO2		1,502,470	1,538,147	1,574,302	1,611,433										
49	7,694	7,983	8,266	8,428	8,701	8,603	9,025	9,377	9,530	9,610	9,691	9,679	9,737	9,867	10,134	V	439,779	V	Oil, Natural Gas, Coal, Flaring, & Cement	Mt Carbon															
50																																			
51	1.88%	1.82%	1.72%	1.64%	1.60%	1.68%	1.53%																												
52																																			
53																																			
54	99.3	103.4	107.4	110.2	115.4	113.2	120.9																												
55																																			
56	0.02	0.02	0.02	0.02	0.02	0.02	0.02																												
57																																			
58																																			
59																																			
60																																			
61																																			