



ESG datasheet 2020

March 2021

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Introduction

This ESG datasheet aims to provide a consolidated overview of bp's non-financial performance. Metrics included in this datasheet cover our activities during the period 1 January to 31 December for the years indicated.

Performance data included in this datasheet is discussed further in the sustainability report 2020. The datasheet should be read in conjunction with the sustainability report and is not a substitute for it. The report is available at bp.com/sustainability

Reinventing our business model

As we transition from an International Oil Company to an Integrated Energy Company we are reinventing our old business model. This upstream/downstream business model was in place up to 31 December 2020 and this is reflected in how we are reporting our ESG data for 2020. We transitioned to our new business model on 1 January 2021.

Metrics subject to assurance for 2020


The selected sustainability information below were subject to limited assurance by Deloitte LLP in accordance with the International Standard for Assurance Engagements ('ISAE') 3000 (Revised). Please see page 93 of the 2020 [sustainability report](#) for Deloitte's independent assurance statement.

An associated 'Basis of reporting' document is available on bp.com/basisofreporting


1. Recordable injury frequency
2. Day away from work case frequency
3. Number of fatalities
4. Number of oil spills equal to or greater than 1 barrel
5. Process safety events (tier 1 and tier 2)
6. Scope 1 (direct) GHG emissions (operational boundary) (MtCO₂e) (aim 1)
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12. Scope 1 (direct) GHG emissions (equity boundary) (MtCO₂e) (aim 1)
13. Scope 2 (indirect) GHG emissions (equity boundary) (MtCO₂e) (aim 1)
14. Cumulative total sustainable emissions reductions (SERs) (MtCO₂e) (aim 1)
15. Scope 1 (direct) carbon dioxide emissions (operational boundary) (MtCO₂) (aim 1)
16. Scope 1 (direct) methane emissions (operational boundary) (Mte) (aim 1)
17. Carbon emissions upstream oil and gas production (MtCO₂e) (aim 2)
18. Carbon intensity of total marketed energy products (gCO₂e/MJ) (aim 3)
19. Methane intensity (%) (aim 4)
20. Energy consumption for UK and offshore locations (operational boundary) (GWh, base units of kWh)
21. Energy consumption for global locations (excluding UK and offshore) (operational boundary) (GWh, base units of kWh)

Reports and reporting frameworks

Reporting centre

-  Copies of all of bp's key reports, and an archive, can also be found in our reporting centre at bp.com/reportingcentre






Reports

-  [Annual report and form 20-F 2020](#)
-  Diversity & inclusion 2020 – to be published
-  [Energy Outlook 2020](#)
-  Gender pay gap report 2020 – to be published
-  [Our participation in trade associations: Climate](#)
-  [Our tax report 2019](#)
-  [Payments to governments 2019](#)
-  [Protected areas 2020](#)
-  [Slavery and human trafficking statement 2019](#)
-  [Statistical review of world energy 2020](#)
-  [Sustainability report 2020](#)

Reporting frameworks

-  [GRI standards index](#)
-  [SASB/TCFD index](#)
-  [UN global compact communication on progress](#)

Policies and positions

-  [bp's code of conduct](#)
-  [bp's expectations of its suppliers](#)
-  [bp labour rights and modern slavery principles](#)
-  [Business and human rights policy](#)
-  [Our biodiversity position](#)

Net zero

Metric	Unit	2016	2017	2018	2019	2020
Aim 1 – Scope 1 (direct) and Scope 2 (indirect) greenhouse gas emissions ^a	MteCO ₂ e	57.6	56.6	54.2	54.4	45.5
Aim 2 – Emissions from the carbon in our upstream oil and gas production (our Scope 3 aim) ^{b,c}	MteCO ₂ e	–	–	–	360.6	327.6
Aim 3 – Average emissions intensity of our marketed energy products ^{b,d}	gCO ₂ e/MJ	–	–	–	79.3	78.8
Refined energy products emissions intensity	gCO ₂ e/MJ	–	–	–	92.8	92.6
Gas products emissions intensity	gCO ₂ e/MJ	–	–	–	71.6	71.6
Bioproducts emissions intensity	gCO ₂ e/MJ	–	–	–	28.8	28.2
Power products emissions intensity	gCO ₂ e/MJ	–	–	–	43.8	43.0
Marketed emissions ^{b,e}	MteCO ₂ e	–	–	–	990.8	872.1
Aim 4 – Methane intensity ^{f,g}	%	0.2	0.2	0.16	0.14	0.12
Aim 5 – Amount invested in low carbon activities ^h	\$ million	–	–	>500	>500	750

a Operational control data comprises 100% of emissions from activities operated by bp, going beyond the IPIECA guidelines by including emissions from certain other activities such as contracted drilling activities.

b The baseline year for our aims 1, 2 and 3 is 2019. Following publication of the bp Annual Report and Form 20-F 2019, some data improvements related to the reported 2019 figures for aims 2 and 3 were identified. Although these are not considered to be material, for each of aims 2 and 3 we are showing the resulting adjusted figures for 2019.

c Estimated CO₂ emissions from the assumed combustion of upstream production of crude oil, natural gas and natural gas liquids (NGLs) on a bp equity share basis based on bp's net share of production, excluding bp's share of Rosneft production and assuming that all produced volumes undergo full stoichiometric combustion to CO₂. Emissions are broadly equivalent to the GHG Protocol, Scope 3, category 11, with the specific scope of upstream production volumes.

d The weighted average GHG emissions per unit of energy delivered (in grams CO₂e/MJ), estimated in respect of marketing sales of energy products. GHG emissions are estimated on a lifecycle basis covering production, distribution and use of the relevant products (assuming full stoichiometric combustion of the product to CO₂).

e Marketed emissions is the lifecycle GHG emissions associated with bp's marketed energy products, as determined in the calculation of the average emissions intensity of our marketed energy products.

f Methane intensity refers to the amount of methane emissions from bp's operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. Our methodology is aligned with the Oil and Gas Climate Initiative's (OGCI) methane intensity target. Methane intensity was previously reported to one decimal place but is now reported to two, in order to better demonstrate year-on-year changes.

g 2020 methane intensity is calculated using our existing methodology and, whilst it reflects progress in reducing methane emissions, will not directly correlate with progress towards delivering the 2025 target under aim 4.

h Aim 5 non-oil and gas activities included a partial acquisition payment for the US offshore wind partnership with Equinor, our investments in electrification and advanced mobility, and investment into activities through bp ventures and Launchpad.

Greenhouse gas emissions

Metric	Unit	2016	2017	2018	2019	2020
Operational control ⁱ						
Scope 1 (direct) greenhouse gas emissions ⁱ	MteCO ₂ e	51.4	50.5	48.8	49.2	41.7
Scope 1 (direct) carbon dioxide emissions	MteCO ₂ e	48.4	47.8	46.4	46.8	39.8
Scope 1 (direct) methane emissions	Mte	0.12	0.11	0.09	0.10	0.07
Methane intensity ^k	%	0.2	0.2	0.16	0.14	0.12
Sustainable GHG emissions reductions ^l	MteCO ₂ e	0.7	0.5	1.3	1.4	1.0
Scope 2 (indirect) emissions	MteCO ₂ e	6.2	6.1	5.4	5.2	3.8
Flaring ^m	kt	1,896	1,987	1,634	1,395	831
Equity ⁿ						
Scope 1 (direct) greenhouse gas emissions ⁱ	MteCO ₂ e	50.1	49.4	46.5	46.0	41.3
upstream	MteCO ₂ e	26.8	26.6	25.3	24.3	20.1
downstream	MteCO ₂ e	21.1	20.6	19.4	19.8	19.8
other	MteCO ₂ e	2.2	2.3	1.9	1.9	1.5
Scope 1 (direct) carbon dioxide emissions	MteCO ₂ e	46.1	45.8	43.3	43.0	39.1
upstream	MteCO ₂ e	23.0	23.2	22.2	21.4	17.9
downstream	MteCO ₂ e	20.9	20.4	19.3	19.7	19.7
other	MteCO ₂ e	2.2	2.2	1.8	1.9	1.4
Scope 1 (direct) methane emissions	Mte	0.16	0.15	0.13	0.12	0.09
upstream	Mte	0.15	0.14	0.12	0.12	0.09
downstream	Mte	0.01	0.01	0.00	0.00	0.00
other	Mte	0.00	0.00	0.00	0.00	0.00
Sustainable GHG emissions reductions ^l	MteCO ₂ e	0.3	0.4	0.6	0.8	0.6
Greenhouse gas intensity						
upstream	tCO ₂ e per thousand boe	34.7	30.4	27.8	25.9	24.1
refining	tCO ₂ e per utilized equivalent distillation capacity	951	923	915	916	913
petrochemicals ^o	tCO ₂ e per thousand tonnes	287	304	289	291	289

Metric	Unit	2016	2017	2018	2019	2020
Scope 2 (indirect) emissions	MteCO ₂ e	6.2	6.8	5.7	5.7	4.2
upstream	MteCO ₂ e	0.5	0.5	0.3	0.3	0.3
downstream	MteCO ₂ e	5.6	6.1	5.3	5.2	3.8
other	MteCO ₂ e	0.1	0.1	0.1	0.1	0.1
Energy ⁱ						
Total energy consumed	million GJ	759	742	755	760	649
upstream	million GJ	387	375	400	395	311
downstream	million GJ	347	341	332	346	323
other	million GJ	26	26	23	19	16
Energy efficiency indexed to 2010						
upstream (production/consumption loss)	production/consumption loss	102.4	101.0	91.3	86.8	91.5
refining (energy intensity performance index)	energy intensity performance index	103.1	104.4	103.9	104.5	106.5
petrochemicals (energy intensity) ^o	energy intensity	82.3	79.9	86.5	88.5	80.3
Energy consumption – Streamlined Energy and Carbon Reporting (SECR) ^p						
UK and offshore ^q	GWh/base units kWh	–	–	–	–	7,005
Global (excluding UK and offshore) ^r	GWh/base units of kWh	–	–	–	–	172,999

ⁱ Operational control data comprises 100% of emissions from activities operated by bp, going beyond the IPIECA guidelines by including emissions from certain other activities such as contracted drilling activities.

^j We provide data on GHG emissions material to our businesses on a carbon dioxide-equivalent basis. This includes CO₂ and methane for Scope 1 emissions.

^k Methane intensity refers to the amount of methane emissions from bp's operated upstream oil and gas assets as a percentage of the total gas that goes to market from those operations. Our methodology is aligned with the Oil and Gas Climate Initiative's (OGCI) methane intensity target. Methane intensity was previously reported to one decimal place but is now reported to two, in order to better demonstrate year-on-year changes.

^l SERs result from actions or interventions that have led to ongoing reductions in Scope 1 (direct) and/or Scope 2 (indirect) greenhouse gas (GHG) emissions (carbon dioxide and methane) such that GHG emissions would have been higher in the reporting year if the intervention had not taken place. SERs must meet three criteria: a specific intervention that has reduced GHG emissions, the reduction must be quantifiable and the reduction is expected to be ongoing. Reductions are reportable for a 12-month period from the start of the intervention/action.

^m We report the total hydrocarbons flared from our upstream operations.

ⁿ bp equity share data comprises 100% of emissions from subsidiaries and the percentage of emissions equivalent to our share of joint arrangements and associates, other than bp's share of Rosneft.

^o At the end of 2020 bp completed the sale of its global aromatics and acetyls business to INEOS.

^p Energy content of flared or vented gas is excluded from energy consumption reported as although they reflect loss of energy resources, they do not reflect energy use required for production or manufacturing of products.

^q UK and offshore energy consumption 7,005,000,000kWh in 2020.

^r Global (excluding UK and offshore) energy consumption 172,999,000,000kWh in 2020.

Safety

Metric	Unit	2016	2017	2018	2019	2020	Metric	Unit	2016	2017	2018	2019	2020
Personal safety*													
Fatalities – workforce [†]	#	3	1	1	2	1	Day away from work case frequency (DAFWCF) – workforce – downstream [‡]	DAFWC per 200,000 hours worked	0.083	0.075	0.070	0.054	0.060
employee	#	0	1	0	1	1	employee	DAFWC per 200,000 hours worked	0.058	0.060	0.055	0.042	0.047
contractor	#	3	0	1	1	0	contractor	DAFWC per 200,000 hours worked	0.122	0.095	0.090	0.070	0.082
Day away from work cases (DAFWC) – workforce [‡]	#	94	97	79	77	58	Day away from work case frequency (DAFWCF) – workforce – other [‡]	DAFWC per 200,000 hours worked	0.050	0.089	0.057	0.062	0.024
employee	#	38	41	33	29	19	employee	DAFWC per 200,000 hours worked	0.054	0.072	0.051	0.054	0.008
contractor	#	56	56	46	48	39	contractor	DAFWC per 200,000 hours worked	0.038	0.129	0.069	0.080	0.083
Day away from work cases (DAFWC) – workforce – upstream [‡]	#	32	28	21	29	21	Recordable injuries (RI) – workforce [¶]	#	385	384	328	273	174
employee	#	7	6	4	5	2	employee	#	147	147	108	88	57
contractor	#	25	22	17	24	19	contractor	#	238	237	220	185	117
Day away from work cases (DAFWC) – workforce – downstream [‡]	#	48	43	42	33	33	Recordable injuries (RI) – workforce – upstream [¶]	#	167	156	139	133	78
employee	#	20	20	19	15	16	employee	#	25	24	23	15	9
contractor	#	28	23	23	18	17	contractor	#	142	132	116	118	69
Day away from work cases (DAFWC) – workforce – other [‡]	#	14	26	16	15	4	Recordable injuries (RI) – workforce – downstream [¶]	#	139	132	132	92	84
employee	#	11	15	10	9	1	employee	#	62	65	47	42	45
contractor	#	3	11	6	6	3	contractor	#	77	67	85	50	39
Day away from work case frequency (DAFWCF) – workforce [‡]	DAFWC per 200,000 hours worked	0.051	0.055	0.048	0.047	0.044	Recordable injuries (RI) – workforce – other [¶]	#	79	96	57	48	12
employee	DAFWC per 200,000 hours worked	0.050	0.056	0.046	0.042	0.031	employee	#	60	58	38	31	3
contractor	DAFWC per 200,000 hours worked	0.052	0.054	0.049	0.050	0.054	contractor	#	19	38	19	17	9
Day away from work case frequency (DAFWCF) – workforce – upstream [‡]	DAFWC per 200,000 hours worked	0.033	0.031	0.027	0.037	0.034	Recordable injury frequency (RIF) – workforce [×]	recordable injuries per 200,000 hours worked	0.211	0.218	0.198	0.166	0.132
employee	DAFWC per 200,000 hours worked	0.034	0.032	0.023	0.031	0.015	employee	recordable injuries per 200,000 hours worked	0.194	0.202	0.152	0.128	0.094
contractor	DAFWC per 200,000 hours worked	0.033	0.031	0.028	0.038	0.040	contractor	recordable injuries per 200,000 hours worked	0.222	0.229	0.233	0.193	0.163

Safety continued

Metric	Unit	2016	2017	2018	2019	2020
Recordable injury frequency (RIF) – workforce – upstream ^x	recordable injuries per 200,000 hours worked	0.172	0.175	0.180	0.169	0.128
employee	recordable injuries per 200,000 hours worked	0.120	0.130	0.135	0.092	0.068
contractor	recordable injuries per 200,000 hours worked	0.187	0.186	0.193	0.188	0.145
Recordable injury frequency (RIF) – workforce – downstream ^x	recordable injuries per 200,000 hours worked	0.241	0.229	0.219	0.150	0.153
employee	recordable injuries per 200,000 hours worked	0.179	0.195	0.135	0.117	0.132
contractor	recordable injuries per 200,000 hours worked	0.335	0.277	0.332	0.196	0.189
Recordable injury frequency (RIF) – workforce – other ^x	recordable injuries per 200,000 hours worked	0.280	0.327	0.203	0.198	0.073
employee	recordable injuries per 200,000 hours worked	0.295	0.278	0.195	0.185	0.023
contractor	recordable injuries per 200,000 hours worked	0.241	0.446	0.219	0.226	0.250
Hours worked – workforce	million hours	366	352	331	329	264
employee	million hours	152	145	143	138	121
contractor	million hours	214	207	189	191	144
Process safety ^s						
Tier 1 process safety events ^y	#	16	18	16	26	17
upstream	#	9	13	8	17	13
downstream	#	7	5	8	8	3
other	#	0	0	0	1	1
Tier 2 process safety events ^z	#	84	61	56	72	53
upstream	#	48	31	23	53	38
downstream	#	35	29	31	18	15
other	#	1	1	2	1	0

Metric	Unit	2016	2017	2018	2019	2020
Vehicle safety ^s						
Severe vehicle accident rate ^{aa}	accidents per million km driven	0.05	0.03	0.04	0.05	0.01
Total vehicle accident rate ^{bb}	accidents per million km driven	1.04	1.08	0.87	0.91	0.71
Severe vehicle accidents	#	28	17	18	24	5
Total vehicle accidents	#	554	547	431	430	261
Kilometres driven	million km	532	505	457	444	329

^s This represents reported incidents occurring within bp's operational HSSE reporting boundary. That boundary includes bp's own operated facilities and certain other locations or situations.

^t The total number of fatalities by employee and contractor for the bp group.

^u DAFWC – Day away from work cases: the number of incidents that resulted in an injury where a person is unable to work for a day (shift) or more.

^v DAFWCF – Day away from work case frequency: the number of DAFWC incidents per 200,000 hours worked.

^w RI – Recordable injury: the number of work-related incidents that result in injuries or that caused fatality, loss of consciousness, restriction of work or motion, transfer to another job, or require treatment other than simple first aid.

^x RIF – Recordable injury frequency: the number of reported work-related incidents that result in a fatality or injury per 200,000 hours worked.

^y Losses of primary containment from a process of greatest consequence – such as causing harm to a member of workforce, costly damage to equipment or exceeding defined quantities.

^z Losses of primary containment of lesser consequence than tier 1.

^{aa} Rate of severe vehicle accidents (per one million km) involving light and heavy motor vehicles being operated by a member of the bp Workforce while undertaking business travel, resulting in fatality, injury, or vehicle rollover.

^{bb} Total vehicle accident rate (TVAR) is the sum of all on-road and off-road motor vehicle accidents per one million kilometres driven. The measure is concerned with any accident, whether it caused harm to any person or only resulted in vehicle damage.

Environment

Metric	Unit	2016	2017	2018	2019	2020	Metric	Unit	2016	2017	2018	2019	2020
Spills							Water						
Loss of primary containment ^{cc}	#	200	205	186	237	189	Total freshwater withdrawal ^{hh}	million m ³	255.7	274.9	268.8	281.0	275.6
Oil spills – number (> one barrel) ^{dd}	#	149	139	124	152	121	upstream	million m ³	5.7	6.4	5.7	6.7	3.1
contained ^{ee}	#	91	81	63	90	70	downstream	million m ³	237.8	258.5	252.0	263.3	272.5
reaching land ^{ff}	#	51	44	49	53	36	other	million m ³	12.2	10.0	11.0	11.0	0.0
reaching water ^{ff}	#	7	14	8	5	10	Total freshwater withdrawal – potable water	million m ³	39.5	43.2	38.8	39.5	40.0
Number of spills upstream	#	73	72	55	73	74	upstream	million m ³	1.7	1.8	0.6	0.6	0.5
contained ^{ee}	#	42	41	24	43	36	downstream	million m ³	37.8	41.3	38.1	38.9	39.5
reaching land ^{ff}	#	25	17	23	24	28	other	million m ³	0.0	0.0	0.0	0.0	0.0
reaching water ^{ff}	#	6	14	8	5	9	Total water withdrawal – freshwater (rivers, lakes, aquifers)	million m ³	210.2	225.5	223.8	233.7	227.3
Number of spills downstream	#	64	53	63	71	41	upstream	million m ³	3.4	4.0	5.1	6.1	2.5
contained ^{ee}	#	39	27	35	40	29	downstream	million m ³	194.6	211.5	207.7	216.7	224.8
reaching land ^{ff}	#	25	26	24	28	8	other	million m ³	12.2	10.0	11.0	10.9	0.0
reaching water ^{ff}	#	0	0	0	0	1	Total water withdrawal – reclaimed and recycled water	million m ³	0.8	0.6	2.2	2.3	3.1
Number of spills other	#	12	14	6	8	6	upstream	million m ³	0.0	0.0	0.0	0.0	0.0
contained ^{ee}	#	10	13	4	7	5	downstream	million m ³	0.8	0.6	2.2	2.3	3.1
reaching land ^{ff}	#	1	1	2	1	0	other	million m ³	0.0	0.0	0.0	0.0	0.0
reaching water ^{ff}	#	1	0	0	0	0	Total water withdrawal – industrial water and steam	million m ³	6.0	6.2	6.1	7.7	8.3
Oil spills – volume	thousand litres	677	886	538	710	784	upstream	million m ³	0.6	0.6	0.0	0.0	0.0
unrecovered ^{gg}	thousand litres	311	265	131	300	494	downstream	million m ³	5.3	5.7	6.1	7.7	8.3
recovered	thousand litres	–	–	–	–	289	other	million m ³	0.0	0.0	0.0	0.0	0.0
upstream – spilled	thousand litres	390	119	162	293	467	Total freshwater withdrawal in areas with water stress or scarcity ^{hh}	%	–	–	–	7	7
upstream – unrecovered ^{gg}	thousand litres	293	49	52	229	328	Freshwater withdrawal intensity ^{hh}	t withdrawn/t production	1.1	1.2	1.1	1.0	1.2
downstream – spilled	thousand litres	281	758	370	410	306	upstream ⁱⁱ	t withdrawn/t production	0.0	0.0	0.0	0.04	0.02
downstream – unrecovered ^{gg}	thousand litres	18	216	78	70	167	refining	t withdrawn/t throughput	2.5	2.7	2.6	2.7	2.9
other – spilled	thousand litres	7.0	8.3	5.8	7.6	10.7	petrochemicals ⁱⁱ	t withdrawn/t production	3.1	3.0	3.3	3.1	3.1
other – unrecovered ^{gg}	thousand litres	0.4	0.5	1.6	1.6	0.01							

Environment continued

Metric	Unit	2016	2017	2018	2019	2020
Freshwater consumption ^{hh}	million m ³	84.5	88.3	85.9	90.8	75.4
percentage of withdrawal	%	33	32	32	32	27
in areas with water stress or scarcity	%	–	–	–	16	19
Freshwater consumption intensity ^{hh}	t consumed/t production	0.4	0.4	0.3	0.3	0.3
<u>Discharges to water – upstream</u>						
mass of produced water managed per unit of mass production	t/t	0.7	0.7	0.7	0.7	0.6
produced water generated	million tonnes	98	102	101	112	85
produced water discharged	million tonnes	25	22	18	19	22
produced water injected	million tonnes	74	80	83	93	63
produced water evaporated	million tonnes	–	–	–	–	<1
produced water percentage discharged	%	–	–	–	17	25
produced water percentage injected	%	–	–	–	83	74
produced water percentage evaporated	%	–	–	–	–	<1
oil discharged in muds and cuttings	tonnes	4	4	122	35	0
synthetic based fluids discharged in drilling muds and cuttings	tonnes	2,017	1,232	2,389	1,277	27
drilling chemicals	tonnes	63,159	72,230	26,881	31,367	43,523
production chemicals excluding drilling	tonnes	22,048	20,762	18,798	19,764	10,917
oil discharged – in produced water and effluent	tonnes	469	278	451	376	432
hydrocarbon concentration in discharged water	mg/l	18.9	12.4	25.4	20.0	19.9
Discharges to water – downstream total water discharged	million m ³	76	80	78	78	76
downstream – discharged to third party operated wastewater treatment plant	million m ³	14.7	15.6	14.3	14.5	14.5
downstream – discharged to bp operated wastewater treatment plant	million m ³	61.6	64.7	63.4	62.8	61.3
downstream – chemical oxygen demand (COD)	mg/l	49.3	41.0	44.2	45.0	38.2

Metric	Unit	2016	2017	2018	2019	2020
Discharges to water – other businesses	million m ³	0	0	0	0	0
Discharges to water – COD discharged downstream	tonnes	3,307	2,650	2,804	2,825	2,340
Discharges to water – COD discharged other	tonnes	0	0	0	0	0
<u>Air emissions</u>						
Total emissions to air	kte	371	353	305	296	229
upstream	kte	256	231	197	210	160
downstream	kte	47	45	41	39	38
other	kte	68	77	67	47	31
Air emissions – nitrogen oxides	kte	125	122	115	110	79
upstream	kte	82	78	75	73	50
downstream	kte	11	10	10	10	10
other	kte	32	34	30	27	18
Air emissions – sulphur oxides	kte	36	35	32	23	19
upstream	kte	2	2	1	1	1
downstream	kte	17	15	14	12	13
other	kte	32	34	30	9	4
Air emissions – non-methane hydrocarbons	kte	91	87	64	67	56
upstream	kte	58	47	31	42	36
downstream	kte	16	17	14	13	12
other	kte	17	24	19	11	8
Air emissions – methane group ^{kk}	kte	120	109	95	96	75
upstream	kte	115	104	90	92	72
downstream	kte	3	3	3	3	3
other	kte	2	2	2	1	0

Environment continued

Metric	Unit	2016	2017	2018	2019	2020
Waste						
Hazardous waste generated (excluding deepwell) ⁱⁱ	kte	-	-	-	-	133.7
Hazardous waste recovered-recycled offsite (excluding deepwell) ⁱⁱ	kte	-	-	-	-	53.1
upstream	kte	-	-	-	-	18.8
downstream	kte	-	-	-	-	34.2
other	kte	-	-	-	-	0.1
Hazardous waste disposed (excluding deepwell) ⁱⁱ	kte	228.4	171.0	182.8	142.6	80.6
upstream	kte	57.4	78.8	65.9	46.0	23.0
downstream	kte	170.4	91.3	115.5	95.3	57.7
other	kte	0.6	1.0	1.3	1.2	0.0
Non-hazardous waste generated	kte	-	-	-	491.1	406.3
Non-hazardous waste recovered-recycled offsite	kte	130.4	136.0	112.7	262.8	203.2
upstream	kte	27.2	29.3	15.7	19.3	21.3
downstream ^{mmm}	kte	99.2	104.9	95.2	241.4	181.9
other	kte	4.0	1.8	1.9	2.1	0.0
Non-hazardous waste disposed offsite	kte	242.4	286.5	241.5	228.3	203.1
upstream	kte	66.6	60.4	68.1	80.2	67.3
downstream	kte	173.2	223.7	171.7	146.0	135.3
other	kte	2.6	2.4	1.7	2.1	0.6
Other						
Environmental expenditure ⁿⁿ	\$ million	536	971	1,546	2,319	412
Environmental and safety fines	\$ million	15.0	3.6	1.9	0.8	7.4
Percentage of major operating sites externally verified to be in conformance with ISO 14001	%	-	-	-	100	100
Number of major operating sites in or close (within 20km) to international protected areas ^{oo pp}	#	-	-	-	14	14

cc Loss of primary containment records any unplanned or uncontrolled release of material (excluding small or non-hazardous releases such as water) from a tank, vessel, pipe, rail car or equipment used for containment.

dd Any loss of primary containment of one barrel or more of liquid hydrocarbon (1 barrel = 159 litres = 42 gallons).

ee The number of spills from primary containment. This number contains a small number of unclassified spills.

ff The number of spills which breach containment (primary or secondary) and reach the environment, either to land or to water.

gg The volume of oil remaining in land or water after recovery operations.

hh In 2020 we adjusted our methodology for calculating total freshwater withdrawals and freshwater consumption to exclude reclaimed water volumes. Some 2016-2019 data has been restated as a result.

ii Freshwater withdrawal intensity, upstream was previously reported to one decimal place but is now reported to two, in order to better demonstrate year-on-year changes.

jj At the end of 2020 bp completed the sale of its global aromatics and acetyls business to INEOS.

kk Metric renamed from 2019.

ll Hazardous waste does not include waste which is disposed of under licence to deepwell.

mmm 2019 data restated.

nn Operating and capital expenditure on the prevention, control, treatment or elimination of air and water emissions and solid waste is often not incurred as a separately identifiable transaction. Instead, it forms part of a larger transaction that includes, for example, normal operations and maintenance expenditure. The figure for environmental expenditure is therefore estimated, based on the definitions and guidelines of the American Petroleum Institute.

oo A major operation may exist within or near more than one type of protected area.

pp 2019 data restated.

Social

Metric	Unit	2016	2017	2018	2019	2020
Economic value generated by bp	\$ million	–	–	303,900	283,300	188,000
payments to suppliers	\$ million	–	–	255,900	233,600	165,300
benefits to employees ^{qa}	\$ million	11,233	10,204	10,490	9,836	9,909
taxes to governments ^{ra}	\$ million	2,174	5,797	7,527	6,913	3,337
contribution to communities ^{sa}	\$ million	61	90	114	84	86
US and Canada	\$ million	–	–	22.6	27.8	22.4
Sub-Saharan Africa	\$ million	–	–	35.9	13.3	14.1
Middle East and North Africa	\$ million	–	–	23.8	16.2	18.9
Europe	\$ million	–	–	11.9	12.3	16.1
Asia Pacific	\$ million	–	–	12.1	9.8	7.7
South and Central America	\$ million	–	–	7.9	4.4	5.0
Global ^{ta}	\$ million	–	–	–	–	2.0
Contribution to communities – bp foundation	\$ million	–	–	6.4	9.1	6.4
Contribution to communities – bp matching	\$ million	–	–	6.1	8.3	6.1
Contribution to communities – natural disaster relief	\$ million	–	–	0.4	0.4	2.3
Total dividends distributed to bp shareholders ^{ua}	\$ million	7,469	7,867	8,080	8,329	6,340
Percentage of major operating sites in indigenous land	%	–	–	–	17	13
<u>Community complaints</u>						
damage to property/crops	%	–	–	23	27	7
job opportunities	%	–	–	23	24	41
nuisance (odour, noise and dust)	%	–	–	21	19	42
community investment	%	–	–	12	10	2
other	%	–	–	11	6	6
security arrangements	%	–	–	7	10	1
flaring	%	–	–	2	4	1
discharges to water	%	–	–	1	0	0

Metric	Unit	2016	2017	2018	2019	2020
bp people						
Number of employees	#	74,500	74,000	73,000	70,100	63,600
percentage female	%	33	34	35	38	39
percentage male	%	–	–	–	62	61
percentage female – graduate hires ^{va}	%	45	45	48	45	40
percentage male – graduate hires ^{va}	%	–	–	–	–	54
percentage female – experienced hires	%	–	–	40	39	37
percentage male – experienced hires	%	–	–	–	–	63
percentage female – leadership team	%	–	–	15	15	33
percentage male – leadership team	%	–	–	–	–	67
percentage female – group leaders	%	22	21	24	25	29
percentage male – group leaders	%	–	–	–	–	71
percentage female – senior leaders	%	23	24	25	26	27
percentage male – senior leaders	%	–	–	–	–	73
percentage female – board of directors	%	–	–	36	42	45
percentage male – board of directors	%	–	–	–	–	55
Number of employees – group leaders	#	394	394	376	378	270
Number of employees						
Europe	#	–	–	–	33,000	31,900
US and Canada	#	–	–	–	13,600	10,600
Asia Pacific	#	–	–	–	14,700	13,000
South and Central America	#	–	–	–	1,500	1,500
Middle East, North Africa	#	–	–	–	5,200	4,900
Sub-Saharan Africa	#	–	–	–	1,800	1,700
upstream	#	–	–	–	16,600	13,700
downstream	#	–	–	–	44,300	41,300
other businesses and corporate	#	–	–	–	9,200	8,600
Women in group leadership	%	22	21	24	25	29
Women at management level	%	28	30	31	31	32
People from racial minorities in UK and US group leadership	%	11	11	11	14	18

Social continued

Metric	Unit	2016	2017	2018	2019	2020
People from beyond the UK and US in group leadership	%	23	24	24	25	30
Pulse survey						
employee engagement	%	73	66	66	65	64
pride in working for bp	%	–	–	76	75	75
Employee turnover ^{ww}	%	16	12	12	18	20
Number of new employee hires ^{xx}	#	–	–	–	14,281	9,079
25 and under	#	–	–	–	5,795	4,128
26-30	#	–	–	–	2,282	1,507
31-35	#	–	–	–	1,814	1,162
36-40	#	–	–	–	1,431	747
41-45	#	–	–	–	1,056	622
46-50	#	–	–	–	807	435
51-55	#	–	–	–	565	246
56-60	#	–	–	–	310	150
61 and over	#	–	–	–	183	80
male	#	–	–	–	7,450	4,609
female	#	–	–	–	6,775	4,438
Asia Pacific	#	–	–	–	3,307	2,464
Europe	#	–	–	–	8,493	5,549
Middle East & North Africa	#	–	–	–	311	136
Russia	#	–	–	–	16	7
South & Central America	#	–	–	–	653	101
Sub-Saharan Africa	#	–	–	–	178	110
US & Canada	#	–	–	–	1,323	712

Metric	Unit	2016	2017	2018	2019	2020
Rate of new employee hires ^{yy}	%	–	–	–	20	14
25 and under	%	–	–	–	74	58
26-30	%	–	–	–	27	21
31-35	%	–	–	–	17	13
36-40	%	–	–	–	13	7
41-45	%	–	–	–	11	7
46-50	%	–	–	–	9	5
51-55	%	–	–	–	8	4
56-60	%	–	–	–	6	4
61 and over	%	–	–	–	7	4
male	%	–	–	–	16	12
female	%	–	–	–	27	18
Asia Pacific	%	–	–	–	23	19
Europe	%	–	–	–	28	17
Middle East & North Africa	%	–	–	–	6	3
Russia	%	–	–	–	6	4
South & Central America	%	–	–	–	12	7
Sub-Saharan Africa	%	–	–	–	10	7
US & Canada	%	–	–	–	10	7

qq Includes wages, salaries, share-based payments, benefits and pensions.

rr Comprises income taxes and production taxes paid.

ss Includes bp Foundation spend.

tt Comprises contributions to the WHO COVID-19 Solidarity Response Fund.

uu This includes dividends paid in cash and scrip dividends.

vv 6% of graduate hires chose not to disclose gender.

ww These figures relate to non-retail employees only.

xx Absolute number of new employee hires.

yy New employee hires as a percentage headcount at the end of the reporting period.

Governance

Metric	Unit	2016	2017	2018	2019	2020
Ethics and compliance						
Concerns and enquiries raised through all reporting channels ^{zz}	#	1,701	1,612	1,710	1,849	1,608
operating safely, responsibly and reliably	#	–	237	213	243	251
governments and communities	#	–	49	70	75	60
our people	#	–	839	862	865	684
our assets and financial integrity	#	–	272	333	393	436
our business partners	#	–	209	189	204	132
other matters	#	–	6	43	69	45
Concerns and enquiries raised through OpenTalk ^{zz}	#	–	820	843	788	600
Concerns and enquiries raised with management ^{zz}	#	–	792	867	1,061	1,008
Separations (dismissals, resignations and supplier terminations) for non-compliance and unethical behaviours ^{aaa}	#	–	202	178	138	79
Other						
Countries bp has a presence in	#	–	–	78	79	72
Retail sites	#	–	–	18,700	18,900	20,300

zz Excluding duplicate concerns.

aaa Excludes dismissals of contractors/vendors and staff employed at our retail sites. Excludes heliport spot checks.

Key definitions

Areas of water stress and scarcity

Defined as areas of medium to high, high and very high water stress based on World Resources Institute baseline water stress.

Chemical oxygen demand (COD)

The capacity of water to consume oxygen during the decomposition of organic matter and the oxidation of inorganic chemicals such as ammonia and nitrite. COD measurements are commonly made on samples of waste waters or natural waters contaminated by domestic or industrial wastes. In wastewater treatment, COD is used as an index to assess the effect discharged wastewater will have on the receiving environment.

Fatality

A fatality is any death of an employee or contractor as a result of a work-related incident.

Hazardous waste

Waste that is classified as hazardous (or the regulatory equivalent) by the local regulatory authority.

International protected areas

International protected areas are defined by bp as protected areas which are designated Ramsar wetland sites, World Heritage sites (both natural and cultural), Natura 2000 sites (SPA and SAC protected areas), SCI, Specially Protected Areas and Wildlife (SPA), Marine protected areas under HELCOM (Baltic Marine Environment Protection Commission), Specially Protected Areas of Mediterranean Importance (SPAMI), National protected areas that have IUCN management category Ia, Ib and II, and IUCN V & VI protected areas that are ICCA (Indigenous and community conserved area) designated.

 See [bp.com/protectedareas](https://www.bp.com/protectedareas)

Loss of primary containment (LOPC)

An unplanned or uncontrolled release of oil, gas or other hazardous materials from a tank, vessel, pipe, truck, rail car or other equipment used for storage, separation, processing or transfer.

Major operating sites

A site or grouping of sites that produce or manage petroleum, chemical, or manufactured products where such products, their production processes, or their exploration processes have the potential to cause significant impact on the environment or the safety and health of employees, neighbours, or consumers.

Non-hazardous waste

Waste that is not classified as hazardous (or the regulatory equivalent) by the local regulatory authority.

Oil spill

Any liquid hydrocarbon release of more than, or equal to, one barrel (159 litres, equivalent to 42 US gallons).

Sustainable emissions reductions (SERs)

SERs result from actions or interventions that have led to ongoing reductions in Scope 1 (direct) and/or Scope 2 (indirect) greenhouse gas (GHG) emissions (carbon dioxide and methane) such that GHG emissions would have been higher in the reporting year if the intervention had not taken place. SERs must meet three criteria: a specific intervention that has reduced GHG emissions, the reduction must be quantifiable and the reduction is expected to be ongoing. Reductions are reportable for a 12-month period from the start of the intervention/action.

Tier 1 process safety event

Losses of primary containment of greatest consequence – causing harm to a member of the workforce, costly damage to equipment or exceeding defined quantities.

Tier 2 process safety event

Losses of primary containment of lesser consequence than tier 1.