



ESG datasheet 2019

March 2020

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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.

This ESG datasheet presents the performance data tables previously included in BP Sustainability Reports.

Assured metrics for 2019

The selected sustainability information below were subject to assurance by Deloitte LLP in accordance with the International Standard for Assurance Engagements ("ISAE") 3000 (Revised). Please see bp.com/assurance for more information, including Deloitte's independent assurance statement.

1. Recordable injury frequency rate (employees and contractors on site).
2. Day away from work case frequency (DAFWCF) (employees and contractors on site).
3. Number of fatalities (employees and contractors on site).
4. Number of oil spills.
5. Process safety events (tier 1 and tier 2).
6. Equity-based Scope 1 (direct) greenhouse gas (GHG) emissions.
7. Operational control-based Scope 1 GHG emissions.
8. Total sustainable GHG emissions reductions towards 3.5MtCO₂e target.
9. Methane emissions intensity.
10. Average emissions intensity of our marketed energy products.
11. Emissions from Upstream oil and gas production (CO₂).

Note to users

Performance data included in this datasheet is discussed further in the Sustainability Report 2019. The datasheet should be read in conjunction with the Sustainability Report and is not a substitute for it. Read the report at bp.com/sustainability.

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

Reports

[Annual report and form 20-F 2019](#)

[Sustainability report 2019](#)

[Our participation in trade associations: Climate](#)

[Protected areas 2019](#)

[Gender pay gap report 2019](#)

[Economic impact report UK 2018](#)

[Economic impact report US 2019](#)

[Technology outlook 2018](#)

[Energy outlook 2019](#)

[Energy outlook summary table 2019](#)

[Energy outlook charts data pack 2019](#)

[Statistical review of world energy 2019](#)

[Statistical review of world energy all data](#)

Reporting frameworks

GRI Standards [GRI reporting index 2019](#)

IPECA guidance To be published

UN global compact To be published

Policies and position statements

[Business and Human Rights policy](#)

[BP's participation in trade associations](#)

[BP's code of conduct](#)

[BP's approach to tax](#)

[BP Labour Rights and Modern Slavery principles](#)

[BP's expectations of its suppliers](#)

[Payments to governments](#)

[Slavery and human trafficking statement](#)

Greenhouse gas emissions

Metric	Unit	2015	2016	2017	2018	2019
Operational control^a						
Scope 1 (direct) greenhouse gas emissions	MteCO ₂ e	51.2	51.4	50.5	48.8	49.2
Scope 1 (direct) carbon dioxide emissions	MteCO ₂ e	48.5	48.4	47.8	46.4	46.8
Scope 1 (direct) methane emissions	Mte	0.11	0.12	0.11	0.09	0.10
Methane emissions intensity ^b	%		0.2	0.2	0.16	0.14
Sustainable GHG emissions reductions	MteCO ₂ e	0.2	0.7	0.5	1.3	1.4
Scope 2 (indirect) emissions	MteCO ₂ e	7	6.2	6.1	5.4	5.2
Flaring ^c	kt	1863	1896	1987	1634	1395
Equity^d						
Scope 1 (direct) greenhouse gas emissions	MteCO ₂ e	49.0	50.1	49.4	46.5	46.0
Scope 1 (direct) carbon dioxide emissions	MteCO ₂ e	45.1	46.1	45.8	43.3	43.0
Scope 1 (direct) methane emissions	Mte	0.16	0.16	0.15	0.13	0.12
Sustainable GHG emissions reductions	MteCO ₂ e	0.1	0.3	0.4	0.6	0.8
Greenhouse gas intensity	–	–	–	–	–	–
Upstream	tCO ₂ e per thousand boe	32.7	34.7	30.4	27.8	25.9
Refining	tCO ₂ e per utilized equivalent distillation capacity	944	951	923	915	916
Petrochemicals	tCO ₂ e per thousand tonnes	290	287	304	289	291
Scope 2 (indirect) emissions	MteCO ₂ e	6.9	6.2	6.8	5.7	5.7
Emissions from the carbon in our Upstream oil and gas production ^e	MteCO ₂ e					357.3
Average emissions intensity of our marketed energy products ^f	gCO ₂ e/MJ					79.7
Refined energy products emissions intensity	gCO ₂ e/MJ					93.7
Gas products emissions intensity	gCO ₂ e/MJ					71.6
Bio-products emissions intensity	gCO ₂ e/MJ					28.8
Power products emissions intensity	gCO ₂ e/MJ					43.8
Marketed emissions ^g	MteCO ₂ e					1012.5
CO ₂ avoided through our renewables business ^h	MteCO ₂ e	3.3	2.8	2.7	2.8	2.3

a Comprises 100% of emissions from activities that are operated by BP.

b Methane emissions 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 emissions intensity was previously reported to one decimal place but is now reported to two, in order to better demonstrate year-on-year changes.

c We report the total hydrocarbons flared from our upstream operations.

d BP's 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.

e Estimated CO₂ emissions from the 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.

f Emission rate of equivalent carbon dioxide per unit of energy provided.

Emissions intensity: estimated CO₂e on a lifecycle basis from the use, production and distribution of marketed energy products per unit of energy (MJ) delivered.

g The intensity of our marketed energy products is calculated as outlined in the basis of reporting document, available at bp.com/basisofreporting. Marketed emissions is a weighted average of the lifecycle of each marketed energy product on an absolute basis. Energy products include all products such as fuels (liquid, gaseous and solid) and power sold to assumed third party end users. Bio-products include all equity sales associated with ethanol, Butamax and Biojet. Crude oil is not included as it requires refining prior to end use. Refined products intended for non-fuel use (including lubricants, bitumen and naphtha) are excluded. Sales of energy products reported as trades are not included. Sales to other oil companies where product is subsequently marketed by them are excluded.

h Based on BP's total ethanol production and wind generating capacity.

Metric	Unit	2015	2016	2017	2018	2019
Personal safety						
Fatalities – workforce	#	1	3	1	1	2
Employee	#	0	0	1	0	1
Contractor	#	1	3	0	1	1
Fatality rate – workforce	fatalities per million hours worked	0.003	0.008	0.003	0.003	0.006
Employee	fatalities per million hours worked	0.000	0.000	0.007	0.000	0.007
Contractor	fatalities per million hours worked	0.005	0.014	0.000	0.005	0.005
Day away from work cases – workforce	#	108	94	97	79	77
Employee	#	53	38	41	33	29
Contractor	#	55	56	56	46	48
Day away from work case frequency (DAFWCF) - workforce	DAFWC per 200,000 hours worked	0.061	0.051	0.055	0.048	0.047
Employee	DAFWC per 200,000 hours worked	0.063	0.050	0.056	0.046	0.042
Contractor	DAFWC per 200,000 hours worked	0.059	0.052	0.054	0.049	0.050
Recordable injuries – workforce	#	428	385	384	328	273
Employee	#	170	147	147	108	88
Contractor	#	258	238	237	220	185
Recordable injury frequency (RIF) – workforce	recordable injuries per 200,000 hours worked	0.243	0.211	0.218	0.198	0.166
Employee	recordable injuries per 200,000 hours worked	0.203	0.194	0.202	0.152	0.128
Contractor	recordable injuries per 200,000 hours worked	0.279	0.222	0.229	0.233	0.193
Hours worked – workforce	million hours	353	366	352	331	329
Employee	million hours	168	152	145	143	138
Contractor	million hours	185	214	207	189	191
Process safety						
Tier 1 process safety events	#	20	16	18	16	26
Upstream	#	6	9	13	8	17
Downstream	#	12	7	5	8	8
Other	#	2	0	0	0	1
Tier 2 process safety events	#	83	84	61	56	72
Upstream	#	42	48	31	23	53
Downstream	#	37	35	29	31	18
Other	#	4	1	1	2	1
Loss of primary containment	#	202	200	205	186	237
Oil spills – number (> one barrel)	#	146	149	139	124	152
contained	#	91	91	81	63	90
reaching land	#	51	51	44	49	53
reaching water	#	4	7	14	8	5
Number of spills upstream	#	59	73	72	55	73
contained	#	38	42	41	24	43
reaching land	#	17	25	17	23	24
reaching water	#	4	6	14	8	5
Number of spills downstream	#	72	64	53	63	71
contained	#	40	39	27	35	40
reaching land	#	32	25	26	24	28
reaching water	#	0	0	0	0	0
Number of spills other	#	15	12	14	6	8
contained	#	13	10	13	4	7
reaching land	#	2	1	1	2	1
reaching water	#	0	1	0	0	0
Oil spills – volume	thousand litres	432	677	886	538	710
unrecovered	thousand litres	142	311	265	131	300
upstream – spilled	thousand litres	88	390	119	162	293
upstream – unrecovered	thousand litres	38	293	49	52	229
downstream – spilled	thousand litres	329	281	758	370	410
downstream – unrecovered	thousand litres	102	18	216	78	70
other – spilled	thousand litres	14.1	7.0	8.3	5.8	7.6
other – unrecovered	thousand litres	1.2	0.4	0.5	1.6	1.6
Vehicle safety						
Severe vehicle accident rate	accidents per million km driven	0.11	0.05	0.03	0.04	0.05
Total vehicle accident rate	accidents per million km driven	1.08	1.04	1.08	0.87	0.90

i 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.

Value to society

Metric	Unit	2015	2016	2017	2018	2019
Economic value generated by BP	\$ million				303,900	283,300
Payments to suppliers	\$ million				255,900	233,600
Benefits to employees ^j	\$ million	12,928	11,233	10,204	10,490	9,836
Taxes to governments ^k	\$ million	3,516	2,174	5,797	7,527	6,913
Contribution to communities	\$ million	67	61	90	114	84
US and Canada	\$ million				22.6	27.8
Sub-Saharan Africa	\$ million				35.9	13.3
Middle East and North Africa	\$ million				23.8	16.2
Europe	\$ million				11.9	12.3
Asia Pacific	\$ million				12.1	9.8
South and Central America	\$ million				7.9	4.4
Total dividends distributed to BP shareholders ^l	\$ million	7,301	7,469	7,867	8,080	8,329
Percentage of major operating sites in indigenous land	%					16

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

^k Comprises income taxes and production taxes paid.

^l This includes dividends paid in cash and scrip dividends.

Environment

Metric	Unit	2015	2016	2017	2018	2019
Water						
Total water withdrawal	million m ³	284.7	256.5	275.5	271.0	281.2
Upstream	million m ³	6.8	5.7	6.4	5.7	6.7
Downstream	million m ³	264.5	238.6	259.1	254.2	263.6
Other	million m ³	13.5	12.2	10.0	11.0	11.0
Potable water	million m ³	38.2	39.5	43.2	38.8	39.1
Freshwater	million m ³	238.0	210.2	225.5	223.8	232.3
Reclaimed water	million m ³	2.2	0.8	0.6	2.2	2.4
Industrial water and steam	million m ³	6.4	6.0	6.2	6.1	7.4
In areas with water stress or scarcity	%					9
Freshwater withdrawal – group intensity	t withdrawn/t production	1.0	1.0	1.1	1.0	1.0
Upstream	t withdrawn/t production	0.0	0.0	0.0	0.0	0.04
Refining	t withdrawn/t throughput	2.6	2.5	2.7	2.6	2.7
Petrochemicals	t withdrawn/t production	3.7	3.1	3.0	3.3	3.0
Freshwater consumption	million m ³	91.7	87.4	90.5	88.2	91.1
Percentage of withdrawal	%	32	34	33	33	32
In areas with water stress or scarcity	%					19
Freshwater consumption – group intensity	t consumed/t production	0.4	0.3	0.3	0.3	0.3
Discharges to water – Upstream		–	–	–	–	–
Mass of produced water managed per unit of mass production	t/t	0.6	0.7	0.7	0.7	0.7
Produced water generated	million tonnes	91	98	102	101	112
Produced water discharged	%					17
Produced water injected	%					83
Oil discharged	tonnes	292	473	282	573	411
Oil discharged in muds and cuttings	tonnes	1	4	4	122	35
Oil discharged in produced water and effluent	tonnes	291	469	278	451	376
Hydrocarbon concentration in discharged water	%					28
Discharges to water – Downstream	million m ³	88	76	80	78	78
Discharged to third party operated wastewater treatment plant	million m ³	15.9	14.7	15.6	14.3	14.5
Discharged to BP operated wastewater treatment plant	million m ³	71.9	61.6	64.7	63.4	62.8
Wastewater treatment measured as chemical oxygen demand	mg/l	40.1	49.3	41.0	44.2	45.0
Discharges to water – Other	million m ³	0	0	0	0	0
Air emissions						
Total emissions to air	kte	363	371	353	305	296
upstream	kte	241	256	231	197	210
downstream	kte	56	47	45	41	39
other	kte	67	68	77	67	47
Air emissions – nitrogen oxides	kte	123	125	122	115	110
upstream	kte	79	82	78	75	73
downstream	kte	11	11	10	10	10
other	kte	33	32	34	30	27
Air emissions – sulphur oxides	kte	36	36	35	32	23
upstream	kte	2	2	2	1	1
downstream	kte	18	17	15	14	12
other	kte	33	32	34	30	9
Air emissions – non-methane hydrocarbons	kte	94	91	87	64	67
upstream	kte	56	58	47	31	42
downstream	kte	22	16	17	14	13
other	kte	16	17	24	19	11
Air emissions – volatile organic compounds (methane group)	kte	110	120	109	95	96
upstream	kte	104	115	104	90	92
downstream	kte	4	3	3	3	3
other	kte	2	2	2	2	1

Environment *continued*

Metric	Unit	2015	2016	2017	2018	2019
Energy						
Total energy consumed	million GJ	756	759	742	755	760
Upstream	million GJ	384	387	375	400	395
Downstream	million GJ	347	347	341	332	346
Other	million GJ	25	26	26	23	19
Energy efficiency			–	–	–	–
Upstream (production/consumption loss)	production/consumption loss		102.4	101	91.3	86.8
Refining (energy intensity performance index)	energy intensity performance index		103.1	104.4	103.9	104.5
Petrochemicals (energy intensity)	energy intensity		82.3	79.9	86.5	88.5
Waste						
Hazardous waste disposed (excluding deepwell)	kte	157.4	228.4	171.0	182.8	142.6
upstream	kte	48.9	57.4	78.8	65.9	46.0
downstream	kte	107.9	170.4	91.3	115.5	95.3
other	kte	0.7	0.6	1.0	1.3	1.2
Non-hazardous waste generated	kte					422.3
Non-hazardous waste recovered-recycled offsite	kte	116.6	130.4	136.0	112.7	194.0
upstream	kte	18.9	27.2	29.3	15.7	19.3
downstream	kte	95.3	99.2	104.9	95.2	172.6
other	kte	2.3	4.0	1.8	1.9	2.1
Non-hazardous waste disposed offsite	kte	266.0	242.4	286.5	241.5	228.3
upstream	kte	79.2	66.6	60.4	68.1	80.2
downstream	kte	183.6	173.2	223.7	171.7	146.0
other	kte	3.2	2.6	2.4	1.7	2.1
Other						
Environmental expenditure ^m	\$ million	8017	536	971	1546	2319
Environmental and safety fines	\$ million	0.6	15	3.6	1.9	0.8
Percentage of major operating sites externally verified to be in conformance with ISO 14001	%					100
Number of major operating sites in or near protected areas	#					26

m. 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.

Our people

Metric	Unit	2015	2016	2017	2018	2019
Number of employees – group	#	79,800	74,500	74,000	73,000	70,100
Percentage female	%					38
Percentage male	%					62
Number of employees – group leadership	#	431	394	394	376	378
Women in group leadership	%	19	22	21	24	25
Women at management level	%	28	28	30	31	31
People from racial minorities in UK and US group leadership	%	10	11	11	11	14
People from beyond the UK and US in group leadership	%	21	23	24	24	25
Employee engagement ⁿ	%	71	73	66	66	65
Employee turnover ^o	%	16	16	12	12	18
Number of new employee hires ^p	#					14,281
25 and under	#					5,795
26-30	#					2,282
31-35	#					1,814
36-40	#					1,431
41-45	#					1,056
46-50	#					807
51-55	#					565
56-60	#					310
61 and over	#					183
Male	#					7,450
Female	#					6,775
Asia Pacific	#					3,307
Europe	#					8,493
Middle East & North Africa	#					311
Russia	#					16
South & Central America	#					653
Sub-Saharan Africa	#					178
US & Canada	#					1,323
Rate of new employee hires ^q	%					20
25 and under	%					74
26-30	%					27
31-35	%					17
36-40	%					13
41-45	%					11
46-50	%					9
51-55	%					8
56-60	%					6
61 and over	%					7
Male	%					16
Female	%					27
Asia Pacific	%					23
Europe	%					28
Middle East & North Africa	%					6
Russia	%					6
South & Central America	%					12
Sub-Saharan Africa	%					10
US & Canada	%					10

n We conduct an annual employee survey to understand and monitor levels of employee engagement and identify areas for improvement. We changed our survey questions in 2017 to reflect the new priorities set out in our refreshed strategy. The scores prior to 2017 are based on questions on priorities set out in 2012, so the numbers are not directly comparable.

o These figures relate to non-retail employees only. In 2019 voluntary turnover (resignations and retirements) was 4.6%.

p Absolute number of new employee hires.

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

Business ethics

Metric	Unit	2015	2016	2017	2018	2019
Concerns and enquiries raised through all reporting channels ^r	#	1,158	1,701	1,612	1,710	1,849
Separations (dismissals, resignations and supplier terminations) for non-compliance and unethical behaviours	#			202	178	138

r The figures from 2016 are restated to include concerns raised to line management, as well as OpenTalk cases. Any employee, contractor or other third party can contact our confidential helpline, OpenTalk.
s Excludes dismissals of contractors/vendors and staff employed at our retail sites. Excludes heliport spot checks.

Key definitions

Topic	Definition
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.
Senior management	Includes employees who are group leaders, senior level leaders or in other management positions.
Areas of water stress and scarcity	Includes areas of med-high, high and very high water stress based on World Resources Institute aqueduct data
Protected areas	Includes World Heritage Sites, Ramsar sites, IUCN Category I-II, Natura 2000 sites. See bp.com/protectedareas for details.
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 of natural waters contaminated by domestic or industrial wastes. In wastewater treatment, the COD is used as an index to assess the effect discharged wastewater will have on the receiving environment.
Hazardous waste	Waste that is classified as hazardous (or the regulatory equivalent) by the local regulatory authority.
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 reduction	Sustainable Emission Reductions (SERs) result from actions or interventions that have led to ongoing reductions in Scope 1 (direct) and/or Scope 2 (indirect) 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: BP made a specific intervention that has reduced GHG emissions, BP must be able to quantify the reduction and the reduction is expected to be ongoing. Reductions are reportable for a 12-month period from the start of the intervention/action.
Fatality	A fatality is any death of an employee or contractor as a result of a work-related incident.
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.
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.