



EXPERIENCE **MATTERS**

2016

ANNUAL REPORT

6 NON-FINANCIAL DATA

6.2.2 ENVIRONMENT

Emissions & Energy

	Year to Year		2016 – Regional Breakdown			
	2016	2015 Revised ¹	Brazil	Angola	North America & Equatorial Guinea	Asia
Number of offshore units (vessels)	14	11	7	3	3	1
SBM Offshore Production						
Hydrocarbon Production (tonnes)	44,621,370	34,028,440	29,264,938	11,881,068	3,228,783	246,581
Energy Consumption						
Offshore Energy Consumption – Scope 1 in GJ ²	51,702,482	38,298,297	30,932,828	15,208,854	5,512,837	47,963
Offshore Energy consumption per production ³	1.16	1.13	1.06	1.28	1.71	0.19
Onshore Energy Consumption – Scope 1 + Scope 2 in GJ ²	36,930	42,796				
Total Energy Consumption – Scope 1 + Scope 2 in GJ²	51,739,412	38,341,093				
Emissions – Offshore						
GHG Scope 1						
Carbon dioxide (CO ₂) in tonnes	5,766,556	4,999,926	2,631,318	2,662,849	468,795	3,594
Methane (CH ₄) in tonnes	18,351	17,976	5,462	12,000	889	0
Nitrous oxide (N ₂ O) in tonnes	309	254	162	117	30	0
Volume of GHG⁴	6,247,825	5,456,154	2,796,345	2,951,138	496,670	3,672
GHG per production offshore – Scope 1⁵	140.0	160.34	95.6	248.4	153.8	14.9
Flaring						
Total Gas Flared per production ⁶	21.7	28.2	9.3	54.9	13.7	0.0
Gas Flared on SBM account per production ⁶	2.76	3.48	4.2	-	0.1	-
Proportion of Gas Flared on SBM account	12.7%	12%	45%	0%	1%	-
Other/Air Pollution – Non Greenhouse Gas Emissions						
Carbon monoxide (CO) in tonnes	9,583	8,770	3,705	5,238	639	1
Nitrogen oxides (NO _x)	7,917	6,254	4,370	2,586	950	11
Sulphur dioxides (SO ₂)	13,536	13,462	89	33	13,410	4
Volatile organic compounds (VOCs)	1,988	1,956	573	1,316	99	0

¹ Details of the revised data are provided in section 6.1.7

² GJ = gigajoule

³ gigajoule of energy per tonnes of hydrocarbon production

⁴ GHG = Greenhouse Gas Emissions; in tonnes of CO₂ equivalents

⁵ tonnes of Greenhouse Gas Emissions per thousand tonnes of hydrocarbon production

⁶ tonnes of gas flared per thousand tonnes of hydrocarbon production

Emissions & Energy (continued)

	Year to Year		2016 – Regional Breakdown				
	2016	2015 Revised ¹	Brazil	Angola ²	North America & Equatorial Guinea ²	Asia ²	Europe
Emissions – Onshore (Buildings)							
Renewable Energy Generated ³	86,680	97,318	0	0	0	0	86,680
GHG – Scope 1 (from buildings)							
Onshore Scope 1 energy consumption ³	1,003,712	1,023,445	0	0	0	0	1,003,712
Onshore Scope 1 emissions ⁴	222	227	0	0	0	0	222
GHG – Scope 2 (from buildings)							
Onshore Scope 2 energy consumption ³	9,254,492	10,864,298	911,492	0	3,822,367	561,693	3,958,940
Onshore Scope 2 emissions ⁴	3,582	3,878	111	0	2,286	377	809
Emissions Total (Onshore + Offshore)							
Total Scope 1 Emissions ⁴	6,248,047	5,456,381	0	0	0	0	222
Total Scope 2 Emissions ⁴	3,582	3,878	111	0	2,286	377	809
Total Emissions (Scope 1 + Scope 2)⁴	6,251,630	5,460,259	111	0	2,286	377	1,031

1 Details of the revised data are provided in section 6.1.7

2 For details of the scope for Onshore Emissions, see section 6.1.7

3 kWh

4 tonnes of CO₂ equivalents

Discharges

	Year to Year		2016 – Regional Breakdown			
	2016	2015 Revised ¹	Brazil	Angola	North America & Equatorial Guinea	Asia
Number of offshore units (vessels)	14	11	7	3	3	1
Discharges						
Volume of oil in produced water discharges per million tonnes of hydrocarbon production	2.59	2.46	0.94	5.80	5.99	-
Spills						
Spills (oil and chemicals) with release to sea (number)	6	11	6	-	-	-
Oil spills with release to sea (number)	6	6	6	-	-	-
Volume of Oil spills (m ³)	0.011	0.190	0.011	-	-	-
Number of Oil spills > 1 barrel (159 L)	-	-	-	-	-	-
Number of Oil spills > 1 barrel (159 L) per million tonnes of hydrocarbon production	-	-	-	-	-	-
Waste						
Restricted Waste (kg)	1,471,474		826,665	84,122	555,295	5,392
Non Restricted Waste (kg)	1,305,163		685,114	356,411	219,299	44,339
Total Waste (kg)	2,776,637		1,511,779	440,533	774,594	49,731

1 Details of the revised data are provided in section 6.1.7

6 NON-FINANCIAL DATA

6.2.3 HUMAN RESOURCES

Headcount by Permanent Contractor and Location

	Grand Total	Total		Ratios
		Permanent	Contractor	
SBM – USA	286	278	8	3%
SBM – Malaysia	263	261	2	1%
SBM – Brazil	129	129	0	0%
SBM – Europe	741	707	34	5%
SBM – Schiedam	228	226	2	1%
SBM – Monaco	425	393	32	8%
Imodco	88	88	0	0%
SBM – Operations	2,332	1,847	485	21%
SBM – Headquarters	182	157	25	14%
SBM – Operations Brazil	1,125	1012	113	10%
SBM – Operations Asia & Africa	112	71	41	37%
SBM – Operations Angola	473	393	80	17%
SBM – Operations North America	440	214	226	51%
SBM – FPSO	75	75	0	0%
SBM – Group Executive Functions	130	102	28	22%
SBM – Shared Services	111	109	2	2%
SBM – Corporate	182	179	3	2%
Total	4,249	3,687	562	13%
Construction Yards (Brasa & Paenal)	499	487	12	2%
Grand Total	4,748	4,174	574	12%

Headcount by Nationality (Permanent Staff)

