

## SUMMARY OF GRI INDICATORS

# ABB Group Sustainability Indicators 2018

## Environmental

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
	<b>Hazardous materials</b>						
	Phthalates (tons)	✓	99	106	191	878	258
	Brominated flame retardants (tons)	✓	0.0	0.0	0.0	0.0	1.9
	Lead in submarine cables (tons)	✓	— <sup>1</sup>	0.017	8,246	8,376	7,842
	Organic lead in polymers (tons)	✓	0.0	0.29	1.0	1.4	0.1
	Lead in other products (tons), e.g., backup batteries and counterweights in robots	✓	2,686	2,548	3,321	1,684	1,884
	Cadmium in batteries (tons) <sup>2</sup>	✓	113.3	71.3	53.0	98.3	79.5
	Cadmium in lead alloy and other uses (tons)	✓	0.3	0.4	7.3	6.4	6.0
	Mercury in products (tons)	✓	0.001	0.001	0.002	0.007	0.071
	SF <sub>6</sub> insulation gas (inflow to ABB facilities) (tons) <sup>3</sup>	✓	1,286	1,425	1,653	1,658	1,483
	SF <sub>6</sub> insulation gas (outflow to customers) (tons) <sup>3</sup>	✓	1,279	1,417	1,644	1,648	1,466
	No. of transformers with PCB oil in ABB facilities	✓	6	0	0	0	0
	No. of capacitors with PCB oil in ABB facilities	✓	0	0	0	0	0
	Mercury in instruments in ABB facilities (tons)	✓	0.215	0.215	0.238	0.225	0.320
<b>302-1</b>	<b>Energy consumption (gigawatt-hours – GWh)</b>						
	Biofuels <sup>4</sup>	✓	51.6	64.4	52	46	44
	Oil (11.63 MWh/ton)	✓	48.5	58.5	71	79	85
	Diesel (11.75 MWh/ton)	✓	4.8	5.8	9	8	11
	Coal (7.56 MWh/ton)	✓	0	0	0	0	0
	Gas <sup>5,6</sup>	✓	658	647	658	737	708
	District heat consumption <sup>5</sup>	✓	201	209	198	181	198
	Electricity consumption <sup>5,6</sup>	✓	1,571	1,561	1,620	1,608	1,628
	<b>Total energy used</b>	✓	<b>2,535</b>	<b>2,546</b>	<b>2,607</b>	<b>2,658</b>	<b>2,675</b>
	Electricity sold	✓	2	5	2	1	2
<b>302-3</b>	<b>Energy intensity (MWh/million \$ sales)<sup>7</sup></b>	✓	72	74	77	75	67
<b>302-4</b>	<b>Reduction of energy consumption (GWh)</b>		11	61	51	17	161

## Environmental continued

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
<b>303-1</b>	<b>Water withdrawal (kilotons)</b>						
	Purchased from water companies <sup>5</sup>	✓	3,721	3,678	3,800	4,000	4,200
	Groundwater extracted by ABB	✓	2,499	2,726	2,300	3,200	3,100
	Surface water extracted by ABB	✓	2,561	2,849	3,000	2,400	2,800
	Collection of rainwater	✓	<100	<100	<100	<100	<100
	Waste water from external source	✓	<100	<100	<100	<100	<100
	Water withdrawal from areas of water stress <sup>8</sup>	✓	2,778	2,694	2,730	2,993	2,951
	<b>Total water withdrawal</b>	✓	<b>8,827</b>	<b>9,280</b>	<b>9,100</b>	<b>9,700</b>	<b>10,100</b>
<b>303-3</b>	<b>Water recycled and reused</b>						
	Volume of water reused and recycled (kilotons)		7,449	7,807	10,600	5,200	5,200
	As percentage of total water withdrawal (%)		84	84	116	54	51
<b>Greenhouse gas (GHG) emissions<sup>9</sup> (kilotons CO<sub>2</sub> equivalent)</b>							
<b>305-1</b>	<b>Scope 1</b>						
	CO <sub>2</sub> from the use of energy <sup>6</sup>	✓	148	149	155	173	170
	SF <sub>6</sub> (in CO <sub>2</sub> equivalents) <sup>10</sup>	✓	150	175	221	237	382
	CO <sub>2</sub> from transport by own fleet <sup>11</sup>		63	63	350	350	350
<b>305-2</b>	<b>Scope 2</b>						
	District heat consumption	✓	30	28	31	29	35
	Electricity consumption <sup>6</sup>	✓	597	606	614	684	682
	<b>Total scope 1 and 2 GHG emissions</b>	✓	<b>988</b>	<b>1,020</b>	<b>1,371</b>	<b>1,473</b>	<b>1,618</b>
<b>305-3</b>	<b>Scope 3</b>						
	Air travel <sup>12, 13</sup>	✓	138	150	164	158	171
<b>305-4</b>	<b>GHG emissions intensity (tons CO<sub>2</sub> equivalents/million \$)<sup>14</sup></b>						
	Tons CO <sub>2</sub> equivalents per million \$ sales	✓	32	34	45	46	45
<b>305-7</b>	<b>Emissions of volatile organic compounds (tons)</b>						
	Volatile organic compounds (VOC)	✓	882	987	1,105	1,223	1,291
	Chlorinated volatile organic compounds (VOC-Cl) <sup>15</sup>	✓	4	3	6	13	20
	<b>Emissions of NO<sub>x</sub> and SO<sub>x</sub> (tons SO<sub>2</sub> and NO<sub>2</sub>)</b>						
	SO <sub>x</sub> from burning coal		0	0	0	0	0
	SO <sub>x</sub> from burning oil and biofuels		72	89	82	97	97
	NO <sub>x</sub> from burning coal		0	0	0	0	0
	NO <sub>x</sub> from burning oil and biofuels		54	67	72	73	73
	NO <sub>x</sub> from burning gas		142	140	142	159	153

## Environmental continued

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
<b>306-1</b>	<b>Water discharge by quality and destination (kilotons)</b>						
	Public sewer		6,130	3,039	4,200	3,100	3,000
	treated (percentage)		21%	38%	21%	28%	30%
	untreated (percentage)		79%	62%	79%	72%	70%
	Recipient <sup>16</sup>		761	444	4,500	2,600	2,900
	treated (percentage)		90%	81%	15%	90%	90%
	untreated (percentage)		10%	19%	85%	10%	10%
	Hazardous treatment company		47	45	300	360	400
	treated (percentage)		47%	13%	71%	90%	75%
	untreated (percentage)		53%	87%	29%	10%	25%
	External use		1	0	0	<100	<100
	treated (percentage)		100%	-	-	63%	50%
	untreated (percentage)		-	-	-	37%	50%
<b>306-2</b>	<b>Waste (kilotons)</b>						
	Scrap metal recycled	✓	156	153	148	158	162
	Non-hazardous waste recycled <sup>5</sup>	✓	62	61	53	53	49
	Non-hazardous waste sent for disposal <sup>5</sup>	✓	37	36	37	44	44
	Hazardous waste recycled <sup>17</sup>	✓	5	5	7	5	5
	Hazardous waste sent for disposal <sup>17</sup>	✓	6	8	8	10	13
	<b>Total waste (generated)</b>	✓	<b>266</b>	<b>263</b>	<b>254</b>	<b>270</b>	<b>273</b>
<b>306-3</b>	<b>Numbers of significant spills<sup>18</sup></b>						
	Oil spills		15	19	17	11	7
	Chemical spills		9	10	6	1	0
	Emissions to air		5	3	6	11	3
	Others		14	12	9	0	0
	<b>Total number of significant spills</b>		<b>43</b>	<b>44</b>	<b>38</b>	<b>23</b>	<b>10</b>

## Social

GRI ref.	Indicator description	Data assured	2018		2017		2016		2015		2014	
401-1	Total number and rates of new employee hires and employee turnover											
	Total workforce by region (ABB employees) <sup>19</sup>											
	Europe		68,300		63,000		61,400		61,600		63,000	
	The Americas		35,600		28,800		29,000		30,900		32,200	
	Asia, Middle East and Africa		42,700		43,000		41,900		43,300		45,200	
	Total		146,600		134,800		132,300		135,800		140,400	
	Employee turnover											
	Turnover of all employees <sup>20</sup>											
	Europe		6,509	10%	7,105	11%	6,063	10%	5,891	9%	5,877	9%
	The Americas		3,986	11%	3,148	11%	5,338	17%	5,409	17%	5,379	17%
	Asia, Middle East and Africa		5,127	12%	3,749	9%	4,430	11%	4,946	12%	5,701	13%
	Total employee turnover: ABB Group		15,622	11%	14,002	10%	15,831	12%	16,246	12%	16,957	12%
	Turnover of all female employees <sup>20</sup>											
	Europe		2,053	3%	2,097	3%	1,571	2%	1,498	2%	1,370	2%
	The Americas		1,154	3%	940	3%	1,265	4%	1,418	5%	1,307	4%
	Asia, Middle East and Africa		967	2%	855	2%	882	2%	1,093	3%	1,311	6%
	Total female employee turnover: ABB Group		4,174	3%	3,892	3%	3,718	3%	4,009	3%	3,882	3%
	Employee hires											
	Hires of all employees <sup>20</sup>											
	Europe		7,848	11%	6,888	11%	5,656	9%	5,672	9%	6,195	10%
	The Americas		3,525	10%	3,905	13%	3,354	11%	3,573	11%	4,142	13%
	Asia, Middle East and Africa		5,281	12%	4,403	11%	2,920	7%	3,777	9%	5,493	13%
	Total employee hires: ABB Group		16,654	11%	15,196	11%	11,930	9%	13,022	10%	15,830	12%
	Hires of all female employees <sup>20</sup>											
	Europe		2,442	4%	2,161	3%	1,681	3%	1,520	2%	1,597	3%
	The Americas		950	3%	1,030	3%	937	3%	769	2%	1,010	3%
	Asia, Middle East and Africa		1,076	3%	900	2%	586	1%	761	2%	1,308	3%
	Total female employee hires: ABB Group		4,468	3%	4,091	3%	3,204	2%	3,050	2%	3,915	3%

## Social continued

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
<b>403-2</b>	<b>Occupational health and safety: Injuries, lost days, diseases and fatalities</b>						
	Employee work-related fatalities <sup>21, 23</sup>	✓	0	1	0	0	1
	Incident rate <sup>22</sup>	✓	0.00	0.00	0.00	0.00	0.00
	Employee business travel fatalities <sup>21, 24</sup>	✓	1	1	1	0	0
	Incident rate <sup>22</sup>	✓	0.00	0.00	0.00	0.00	0.00
	Contractor work-related fatalities <sup>21, 23</sup>	✓	3	2	5	2	2
	Contractor business travel fatalities <sup>21, 25</sup>	✓	0	0	2	0	0
	Members of the public fatalities <sup>21</sup>	✓	0	0	0	1	0
	Employee total recordable incident number <sup>23, 27</sup>	✓	830	1,049	1,140	1,310	1,500
	Injury rate <sup>22</sup>	✓	0.58	0.73	0.79	0.87	0.99
	Contractor total recordable incident number <sup>23, 27</sup>	✓	203	205	277	343	333
	Injury rate <sup>22</sup>	✓	0.58	0.52	0.70	0.80	0.78
	Employee lost time incident number <sup>23</sup>	✓	386	472	441	531	652
	Injury rate <sup>22</sup>	✓	0.27	0.33	0.30	0.36	0.43
	Contractor lost time incident number <sup>23</sup>	✓	97	95	118	163	200
	Injury rate <sup>22</sup>	✓	0.28	0.24	0.30	0.38	0.47
	Employee lost days due to industrial incidents <sup>28</sup>		6,650	7,331	6,905	7,831	8,415
	Days lost rate <sup>26</sup>		4.63	5.11	4.78	5.26	5.52
	Employee occupational health illness	✓	30	35	65	46	17
	Employee occupational health illness rate <sup>22</sup>	✓	0.02	0.02	0.05	0.03	0.01
	Sustainability Observation Tours (SOT) conducted <sup>23</sup>	✓	144,738	182,265	178,473	139,124	–
	SOT rate <sup>29</sup>	✓	1.01	1.27	1.24	0.92	–
	Hazards reported <sup>23</sup>	✓	389,733	585,627	621,849	520,942	–
	Hazards reporting rate <sup>29</sup>	✓	2.72	4.08	4.31	3.51	–
	<b>Data by region</b>						
	<b>Employee work-related fatalities: ABB Group</b>	✓	0	1	0	0	1
	Europe	✓	0	0	0	0	0
	The Americas	✓	0	1	0	0	0
	Asia, Middle East and Africa	✓	0	0	0	0	1
	<b>Employee business travel fatalities: ABB Group</b>	✓	1	1	1	0	0
	Europe	✓	0	0	0	0	0
	The Americas	✓	0	0	1	0	0
	Asia, Middle East and Africa	✓	1	1	0	0	0

## Social continued

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
	<b>Contractor work-related fatalities: ABB Group</b>	✓	<b>3</b>	2	5	2	2
	Europe	✓	<b>0</b>	0	0	0	0
	The Americas	✓	<b>1</b>	1	0	0	0
	Asia, Middle East and Africa	✓	<b>2</b>	1	5	2	2
	<b>Contractor business travel fatalities: ABB Group</b>	✓	<b>0</b>	0	2	0	0
	Europe	✓	<b>0</b>	0	0	0	0
	The Americas	✓	<b>0</b>	0	2	0	0
	Asia, Middle East and Africa	✓	<b>0</b>	0	0	0	0
	<b>Employee total recordable injury rate: ABB Group</b>	✓	<b>0.58</b>	0.73	0.79	0.88	0.10
	Europe	✓	<b>0.66</b>	0.86	0.96	1.02	1.16
	The Americas	✓	<b>0.97</b>	1.17	1.18	1.40	1.57
	Asia, Middle East and Africa	✓	<b>0.19</b>	0.24	0.27	0.31	0.39
	<b>Contractor total recordable injury rate: ABB Group</b>	✓	<b>0.58</b>	0.52	0.70	0.80	0.78
	Europe	✓	<b>1.52</b>	1.38	1.69	1.88	1.97
	The Americas	✓	<b>0.74</b>	0.96	1.47	1.54	1.40
	Asia, Middle East and Africa	✓	<b>0.26</b>	0.24	0.35	0.37	0.35
	<b>Employee lost time injury rate: ABB Group</b>	✓	<b>0.27</b>	0.33	0.30	0.36	0.43
	Europe	✓	<b>0.39</b>	0.48	0.47	0.56	0.66
	The Americas	✓	<b>0.30</b>	0.34	0.29	0.33	0.40
	Asia, Middle East and Africa	✓	<b>0.07</b>	0.09	0.08	0.08	0.12
	<b>Contractor lost time injury rate: ABB Group</b>	✓	<b>0.28</b>	0.24	0.30	0.38	0.47
	Europe	✓	<b>0.91</b>	0.73	0.93	1.03	1.38
	The Americas	✓	<b>0.29</b>	0.35	0.81	0.84	0.86
	Asia, Middle East and Africa	✓	<b>0.08</b>	0.10	0.07	0.12	0.15
	<b>Employee days lost rate: ABB Group</b>		<b>4.63</b>	5.11	4.78	5.26	5.52
	Europe		<b>6.19</b>	6.95	5.98	7.32	8.25
	The Americas		<b>6.46</b>	6.43	7.81	6.02	8.28
	Asia, Middle East and Africa		<b>1.05</b>	1.49	0.99	1.74	1.72
	<b>Employee occupational health disease rate: ABB Group</b>	✓	<b>0.02</b>	0.02	0.05	0.03	0.01
	Europe	✓	<b>0.04</b>	0.05	0.09	0.06	0.02
	The Americas	✓	<b>0.00</b>	0.00	0.02	0.02	0.03
	Asia, Middle East and Africa	✓	<b>0.01</b>	0.00	0.05	0.00	0.00

## Social continued

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
	<b>SOT rate: ABB Group</b>	✓	<b>1.01</b>	1.27	1.24	0.92	–
	Europe	✓	<b>0.92</b>	0.84	0.76	0.51	–
	The Americas	✓	<b>1.09</b>	1.71	1.87	1.41	–
	Asia, Middle East and Africa	✓	<b>1.10</b>	1.61	1.53	1.17	–
	<b>Hazard rate: ABB Group</b>	✓	<b>2.72</b>	4.08	4.31	3.51	–
	Europe	✓	<b>2.38</b>	3.37	3.65	2.67	–
	The Americas	✓	<b>2.66</b>	4.81	4.78	4.25	–
	Asia, Middle East and Africa	✓	<b>3.28</b>	4.64	5.03	4.19	–
<b>406-1</b>	<b>Non-discrimination</b>						
	Total number of incidents of discrimination		<b>0</b>	0	0	0	1
	Total number of incidents of harassment		<b>25</b>	9	5	8	10
<b>415-1</b>	<b>Public policy</b>						
	Financial and in-kind political contributions		<b>\$11,500</b>	\$300	\$10,400	\$12,600	\$13,000
<b>404-1</b>	<b>Training and education</b>						
	<b>Training per year per employee (average hours)</b>						
	China		<b>16</b>	17	25	22	26
	Czech Republic		<b>12</b>	13	14	14	13
	Finland		<b>13</b>	13	15	17	19
	Germany		<b>18</b>	18	18	18	18
	India		<b>12</b>	5	3	2	12
	Italy		<b>16</b>	12	10	12	12
	Poland		<b>35</b>	20	12	10	11
	Sweden		<b>12</b>	12	10	10	12
	Switzerland		<b>14</b>	14	15	14	16
	USA		<b>16</b>	24	24	27	32
<b>404-3</b>	<b>Employees receiving regular performance and career development reviews<sup>30</sup></b>						
	Top and senior managers		<b>89%</b>	94%	92%	85%	87%
	Middle and lower managers		<b>93%</b>	96%	94%	90%	91%
	Other employees		<b>91%</b>	91%	91%	87%	88%
	<b>Total workforce</b>		<b>91%</b>	91%	92%	87%	88%

## Social continued

GRI ref.	Indicator description	Data assured	2018	2017	2016	2015	2014
<b>405-1</b>	<b>Diversity and equal opportunity</b>						
	<b>Composition of governance bodies</b>						
	<b>Board of Directors</b>						
	Women in Board (percentage)		<b>18%</b>	10%	18%	13%	13%
	Age group diversity (percentage)						
	<30 years old		<b>0%</b>	0%	0%	0%	0%
	30–50 years old		<b>9%</b>	0%	0%	0%	0%
	>50 years old		<b>91%</b>	100%	100%	100%	100%
	Number of nationalities		<b>7</b>	8	10	8	7
	<b>Executive Committee</b>						
	Women in Executive Committee (percentage)		<b>9%</b>	9%	9%	9%	9%
	Age group diversity total (percentage)						
	<30 years old		<b>0%</b>	0%	0%	0%	0%
	30–50 years old		<b>0%</b>	27%	18%	27%	36%
	>50 years old		<b>100%</b>	73%	82%	73%	64%
	Number of nationalities		<b>8</b>	8	7	8	8
	<b>Employees in senior and middle management<sup>21</sup></b>						
	Women in senior and middle management		<b>17%</b>	16%	18%	17%	15%
	Men in senior and middle management		<b>83%</b>	84%	82%	83%	85%
	<b>Total workforce (ABB employees)</b>						
	Women in total workforce		<b>23%</b>	23%	23%	23%	22%
	Men in total workforce		<b>77%</b>	77%	77%	77%	78%

1 Reporting on lead in submarine cables is discontinued from 2018 due to the divestment of our high-voltage cables and cable accessories businesses in Q1 2017.

2 From 2018 we report all cadmium in batteries in one category. Data from 2013–2017 on cadmium in industrial and rechargeable batteries, respectively, have been summed up and are included here.

3 Data on inflow and outflow of SF<sub>6</sub> insulation gas have been restated for 2017, due to an error in the reporting from one site.

4 Biofuels were reported as a separate category in 2017. Biofuel consumption, total energy used, and energy intensity have been restated for 2014–2016, since the use of biofuels was previously not reported at one of our large facilities.

5 Results for these indicators are based on reported data covering 94% of employees in 2018, 93% in 2017, 97% in 2016, 95% in 2015 and 93% in 2014, plus energy use per employee for the remaining employees pro rata. See the Approach to reporting section for more details.

6 Gas and electricity consumption and the associated greenhouse gas (GHG) emissions have been restated for 2014–2017, due to the correction of earlier conversion factor errors at one of our large facilities.

7 Includes sales from Power Grids division.

8 Water withdrawal from areas of water stress have been restated for 2013–2017, due to earlier errors in reporting of water for remediation projects at two sites.

9 See Approach to reporting chapter for more details on GHG emission calculation.

10 In 2015, we updated the factor used to convert SF<sub>6</sub> emissions to CO<sub>2</sub> equivalents to 22,800 kg CO<sub>2</sub>e/kg SF<sub>6</sub>, as recommended by the UK Department of Energy & Climate Change in July 2014, and have applied that factor to SF<sub>6</sub> data reported for all years.

11 For 2018 we use the same data as for 2017. For 2017 data see Approach to reporting; 2014–2016 data was estimated.

12 The air travel indicator included data from ABB Bulgaria, Croatia, Greece, Kazakhstan and Romania for the first time in 2016 and from ABB China and Thomas & Betts for the first time in 2014.

13 Data for air travel is calculated using the emission factors published by the UK Department for Business, Energy & Industrial Strategy in its "2018 Government GHG Conversion Factors for Company Reporting – Methodology Paper for Emission Factors – Final Report."

14 The GHG emissions intensity includes Scope 1+2+3 emissions. Includes sales from Power Grids division.

15 Emissions of Chlorinated volatile organic compounds (VOC-Cl) are included in the Volatile organic compounds (VOC) reported in the line above.

16 Cooling water quality remains unchanged by its use at ABB and is discharged without treatment. Data for 2016 exceptionally included discharge of cooling water to recipient.

17 Hazardous waste as classified in the country where it is generated.

18 An environmental incident is regarded as significant if at least one of the following criteria applies to the incident: obligation to inform local authorities or a governmental agency about the incident and/or regulatory violation; inspection by an environmental agency results in a formal complaint; environmental Notice of Violation, a Consent Order or a Potential Responsible Party (PRP) notification; imposition of a penalty or fine; significant impact on an ecosystem; costs related to the incident exceed, or may exceed, \$10,000.

19 Includes GE Industrial Solutions acquired in 2018.

20 Includes part-time employees. Turnover rate calculated as number of ABB employees (full- and part-time) leaving during the year/total number of ABB employees (full- and part-time) as at 31 December. For the purpose of this calculation, employees and external workforce who leave the organization voluntarily or involuntarily whether due to dismissal, retirement, end of fixed-term contract or death in service or any other reason, are included. However, involuntary turnover arising out of divestments is excluded from the definition.

21 Fatalities include deaths occurring within one year as a result of injuries sustained and commuting is excluded.

22 The number of recorded incidents multiplied by 200,000/total hours worked.

23 Data covers incidents that happened at workplace (ABB facility, customer site, project site).

24 Includes incidents during business travel by road. Air and rail travels are excluded.

25 Includes incidents during business travel between ABB work place (ABB facility, customer site, project site).

26 The number of days lost multiplied by 200,000/total hours worked.

27 Total recordable incidents include fatal, lost-time incident, serious injury incident, medical treatment incident, occupational illness and restricted workday cases.

28 Days lost are calendar days and are counted from the day after the incident.

29 Rate is calculated per employee.

30 Eligible employees included in ABB HR system. Data covers previous year's cycle with completion by Q1 of the reporting year.

31 This indicator focuses on senior and middle management and includes employees in hay grades 1 to 10.