06
Reporting indicators

APPROACH TO SUSTAINABILITY REPORTING

Reporting that matters to stakeholders

ABB aims to provide simple, clear, comprehensive information on how it measures and discloses its environmental, social and governance impacts

The Global Reporting Initiative (GRI) Standards and the EU directive on non-financial reporting provide the framework for ABB's sustainability reporting. We report on ABB's material economic, environmental and social impacts and how we manage them. Omission from the material issues ad-dressed in our report does not mean an issue is not managed. ABB reports annually; the report for 2018 was published on March 15, 2019. The reporting period for the information provided in this report is from January 1 to December 31, 2019.

Reporting boundaries
ABB's formal sustainability reporting system covers all ABB Group companies worldwide, including wholly owned subsidiaries and majority-owned joint ventures. ABB's 2019 Annual Report contains a list of the Company's significant indirect subsidiaries (Appendix: page 224).

Changes in 2019
Entities acquired in 2018 – such as GE Industrial Solutions (GEIS) – are reflected in ABB's environmental and social reporting for the year. All entities acquired in 2019 will be reflected in the 2020 report. The divestment of ABB's Power Grids business is expected close in the first half of 2020. Power Grids is included in our sustainability reporting for 2019. Through the ongoing changes, ABB will seek to maintain alignment between its sustainability reporting and international best practices – including the GRI Standards. In line with ABB's 2018 commitment to the Science Based Targets initiative, in the second half of 2020 ABB will announce its post 2020 GHG emissions targets.

Data collection processes
To measure and gather data from across ABB, we rely on three online data reporting systems: a global system to report on hazards and sustainability observation tours; a system to collect annual social data from every country and environmental data from every production and service site, as well as a majority of our office locations; and a global system used by HSE professionals to report on incidents at ABB entities. As of Q2 2020, the first two systems are being combined to collect all key safety, social and environmental data, simplifying collection and facilitating greater transparency.
Data in this report relating to health, safety and our social performance covers 99 percent of ABB employees. Data relating to our environmental performance was sourced from 578 ABB sites and offices, covering approximately 93 percent of employees. Data on the environmental performance of all remaining employees, who are located at non-manufacturing sites with limited impacts, is generated by estimating energy, water and waste parameters pro rata.

Calculation of energy and greenhouse gas data
ABB uses a market-based method to calculate and report Scope 2 GHG emissions. For purchased electricity and district heat, we have obtained local emission factors from suppliers. For data prior to 2017, where necessary, we have sourced factors from the International Energy Agency's "CO_2 Emissions from Fuel Combustion 2013" database or from national or regional inventories. Emission

factors for fuel used at ABB sites are sourced from the GHG Protocol's "Emission Factors from Cross-Sector Tools" (March 2017). From 2017, emissions from ABB's vehicle fleet are based on lease contract distances and CO_2 per kilometer factors per vehicle.

Scope 2 GHG emissions for electricity have also been calculated using the location-based method (source: IEA) and are provided for comparison below.

Scope 2 GHG emissions from electricity	Kilotons CO_2e
Market-based:	569
Location-based:	544

GHG emissions from air travel are calculated using emission factors published by the UK Department for Business, Energy & Industrial Strategy (BEIS) in its "2018 Government GHG Conversion Factors for Company Reporting."

Independent assurance summary
DNV GL Business Assurance Services UK Limited ("DNV GL") has been engaged by ABB Ltd to provide independent assurance for ABB's 2019 Sustainability Report. The assurance was completed using DNV GL's assurance methodology, VeriSustain™, and the report was evaluated for adherence to the principles of stakeholder inclusiveness, materiality, sustainability context, completeness and reliability. Performance data's scope was evaluated against the reliability principle. DNV GL's full Assurance Statement, including Opinion, Observations and Basis of opinion, is available on ABB's website.

SUMMARY OF GRI INDICATORS

ABB Group Sustainability Indicators 2019

Environmental

GRI ref.	Indicator description	Data assured in 2018	2019	2018	2017	2016	2015	2014
	Hazardous materials							
	Phthalates (tons)	✓	102	99	106	191	878	258
	Brominated flame retardants (tons)	✓	0	0.0	0.0	0.0	0.0	1.9
	Lead in submarine cables (tons) [1]		-	_[1]	0.017	8,246	8,376	7,842
	Organic lead in polymers (tons)	✓	0.0	0.0	0.29	1.0	1.4	0.1
	Lead in other products (tons), e.g., backup batteries and counterweights in robots	✓	2,316	2,686	2,548	3,321	1,684	1,884
	Cadmium in batteries (tons)[2]	✓	15	113.3	71.3	53.0	98.3	79.5
	Cadmium in lead alloy and other uses (tons)	✓	0.3	0.3	0.4	7.3	6.4	6.0
	Mercury in products (tons)	✓	0.001	0.001	0.001	0.002	0.007	0.071
	SF_6 insulation gas (inflow to ABB facilities) (tons)[3]	✓	1,211	1,286	1,425	1,653	1,658	1,483
	SF_6 insulation gas (outflow to customers) (tons)[3]	✓	1,204	1,279	1,417	1,644	1,648	1,466
	No. of transformers with PCB oil in ABB facilities	✓	14	6	0	0	0	0
	No. of capacitors with PCB oil in ABB facilities	✓	89	0	0	0	0	0
	Mercury in instruments in ABB facilities (tons)	✓	0.0570	0.2150	0.2150	0.2380	0.2250	0.3200
302-1	**Energy consumption (gigawatt-hours – GWh)**							
	Biofuels[4]	✓	52.9	51.6	64.4	52	46	44
	Oil (11.63 MWh/ton)	✓	49.0	48.5	58.5	71	79	85
	Diesel (11.75 MWh/ton)	✓	4.4	4.8	5.8	9	8	11
	Coal (7.56 MWh/ton)	✓	0.0	0	0	0	0	0
	Gas[5, 6]	✓	728	658	647	658	737	708
	District heat consumption[5]	✓	208	201	209	198	181	198
	Electricity consumption[5, 6]	✓	1,635	1,571	1,561	1,620	1,608	1,628
	Total energy used	✓	**2,677**	**2,535**	**2,546**	**2,607**	**2,658**	**2,675**
	Electricity sold	✓	2	2	5	2	1	2
302-3	**Energy intensity (MWh/million $ sales)[7]**	✓	72	72	74	77	75	67

Environmental continued

GRI ref.	Indicator description	Data assured in 2018	2019	2018	2017	2016	2015	2014
303-1	**Water withdrawal (kilotons)**							
	Purchased from water companies[5]	✓	3,896	3,721	3,678	3,800	4,000	4,200
	Groundwater extracted by ABB	✓	2,066	2,499	2,726	2,300	3,200	3,100
	Surface water extracted by ABB	✓	2,406	2,561	2,849	3,000	2,400	2,800
	Collection of rainwater	✓	9.8	<100	<100	<100	<100	<100
	Waste water from external source	✓	21.7	<100	<100	<100	<100	<100
	Water withdrawal from areas of water stress[8]	✓	2,711	2,778	2,694	2,730	2,993	2,951
	Total water withdrawal	✓	**8,401**	**8,827**	**9,280**	**9,100**	**9,700**	**10,100**
303-3	**Water recycled and reused**							
	Volume of water reused and recycled (kilotons)		8,051	7,449	7,807	10,600	5,200	5,200
	As percentage of total water withdrawal (%)		96	84	84	116	54	51
Greenhouse gas (GHG) emissions[9] (kilotons CO_2 equivalent)								
305-1	**Scope 1**							
	CO_2 from the use of energy[6]	✓	162	148	149	155	173	170
	SF_6 (in CO_2 equivalents)[10]	✓	159	164	180	228	244	394
	CO_2 from transport by own fleet[11]		75	63	63	350	350	350
305-2	**Scope 2**							
	District heat consumption	✓	33	30	28	31	29	35
	Electricity consumption[6]	✓	569	597	606	614	684	682
	Total scope 1 and 2 GHG emissions	✓	**915** [33]	**1002**	**1,026**	**1,378**	**1,480**	**1,631**
305-3	**Scope 3**							
	Air travel[12, 13]	✓	148	138	150	164	158	171
	Waste generated in operations[34]		12	–	–	–	–	–
	Energy-related activities not in scope 1/2 [34]		70	–	–	–	–	–
	Purchased goods and services[34]		4104	–	–	–	–	–
	Employee commuting[34]		249	–	–	–	–	–
	Up- and downstream transportation[34]		1150	–	–	–	–	–
	Up- and downstream leased assets[34]		219	–	–	–	–	–
305-4	**GHG emissions intensity (tons CO_2 equivalents/million \$)[14]**							
	Tons CO_2 equivalents per million \$ sales, scope 1+2	✓	27	28	30	41	42	–

Environmental continued

GRI ref.	Indicator description	Data assured in 2018	2019	2018	2017	2016	2015	2014
305-7	**Emissions of volatile organic compounds (tons)**							
	Volatile organic compounds (VOC)[15]	✓	1,128	936	987	1,105	1,223	1,291
	Chlorinated volatile organic compounds (VOC-Cl)[16]	✓	2	4	3	6	13	20
	Emissions of NO$_x$ and SO$_x$ (tons SO$_2$ and NO$_2$)							
	SO$_x$ from burning coal		0	0	0	0	0	0
	SO$_x$ from burning oil and biofuels		77	72	89	82	97	97
	NO$_x$ from burning coal		0	0	0	0	0	0
	NO$_x$ from burning oil and biofuels		57	54	67	72	73	73
	NO$_x$ from burning gas		156	142	140	142	159	153
306-1	**Water discharge by quality and destination (kilotons)**							
	Public sewer		3,591	3,649	3,039	4,200	3,100	3,000
	treated (percentage)		36%	36%	38%	21%	28%	30%
	untreated (percentage)		64%	64%	62%	79%	72%	70%
	Recipient[17]		1,123	761	444	4,500	2,600	2,900
	treated (percentage)		84%	90%	81%	15%	90%	90%
	untreated (percentage)		16%	10%	19%	85%	10%	10%
	Hazardous treatment company		140	47	45	300	360	400
	treated (percentage)		81%	47%	13%	71%	90%	75%
	untreated (percentage)		19%	53%	87%	29%	10%	25%
	External use		0	1	0	0	<100	<100
	treated (percentage)		0%	100%	–	–	63%	50%
	untreated (percentage)		100%	–	–	–	37%	50%
306-2	**Waste (kilotons)**							
	Scrap metal recycled	✓	167	156	153	148	158	162
	Non-hazardous waste recycled[5]	✓	61	62	61	53	53	49
	Non-hazardous waste sent for disposal[5]	✓	41	37	36	37	44	44
	Hazardous waste recycled[18]	✓	7	5	5	7	5	5
	Hazardous waste sent for disposal[18]	✓	7	6	8	8	10	13
	Total waste (generated)	✓	**283**	**266**	**263**	**254**	**270**	**273**

Environmental continued

GRI ref.	Indicator description	Data assured in 2018	2019	2018	2017	2016	2015	2014
306-3	**Numbers of significant spills[19]**							
	Oil spills		9	15	19	17	11	7
	Chemical spills		4	9	10	6	1	0
	Emissions to air		6	5	3	6	11	3
	Others		7	14	12	9	0	0
	Total number of significant spills		**26**	**43**	**44**	**38**	**23**	**10**

Social

GRI ref.	Indicator description	Data assured	2019		2018		2017		2016		2015		2014	
401-1	**Total number and rates of new employee hires and employee turnover**													
	Total workforce by region (ABB employees)[20]													
	Europe		68,400		68,300		63,000		61,400		61,600		63,000	
	The Americas		35,200		35,600		28,800		29,000		30,900		32,200	
	Asia, Middle East and Africa		40,800		42,700		43,000		41,900		43,300		45,200	
	Total		**144,400**		**146,600**		**134,800**		**132,300**		**135,800**		**140,400**	
	Employee turnover													
	Turnover of all employees[21]													
	Europe		9,732	14%	6,509	10%	7,105	11%	6,063	10%	5,891	9%	5,877	9%
	The Americas		5,443	16%	3,986	11%	3,148	11%	5,338	17%	5,409	17%	5,379	17%
	Asia, Middle East and Africa		6,860	17%	5,127	12%	3,749	9%	4,430	11%	4,946	12%	5,701	13%
	Total employee turnover: ABB Group		**22,035**	**15%**	**15,622**	**11%**	**14,002**	**10%**	**15,831**	**12%**	**16,246**	**12%**	**16,957**	**12%**
	Turnover of all female employees[21]													
	Europe		2,871	4%	2,053	3%	2,097	3%	1,571	2%	1,498	2%	1,370	2%
	The Americas		1,553	4%	1,154	3%	940	3%	1,265	4%	1,418	5%	1,307	4%
	Asia, Middle East and Africa		1,399	3%	967	2%	855	2%	882	2%	1,093	3%	1,311	6%
	Total female employee turnover: ABB Group		**5,823**	**4%**	**4,174**	**3%**	**3,892**	**3%**	**3,718**	**3%**	**4,009**	**3%**	**3,882**	**3%**
	Employee hires													
	Hires of all employees[21]													
	Europe		11,560	17%	7,848	11%	6,888	11%	5,656	9%	5,672	9%	6,195	10%
	The Americas		4,221	12%	3,525	10%	3,905	13%	3,354	11%	3,573	11%	4,142	13%
	Asia, Middle East and Africa		6,121	15%	5,281	12%	4,403	11%	2,920	7%	3,777	9%	5,493	13%
	Total employee hires: ABB Group		**21,902**	**15%**	**16,654**	**11%**	**15,196**	**11%**	**11,930**	**9%**	**13,022**	**10%**	**15,830**	**12%**
	Hires of all female employees[21]													
	Europe		3,898	6%	2,442	4%	2,161	3%	1,681	3%	1,520	2%	1,597	3%
	The Americas		1,357	4%	950	3%	1,030	3%	937	3%	769	2%	1,010	3%
	Asia, Middle East and Africa		1,275	3%	1,076	3%	900	2%	586	1%	761	2%	1,308	3%
	Total female employee hires: ABB Group		**6,530**	**4%**	**4,468**	**3%**	**4,091**	**3%**	**3,204**	**2%**	**3,050**	**2%**	**3,915**	**3%**

Social continued

GRI ref.	Indicator description	Data assured	2019	2018	2017	2016	2015	2014
403-2	**Occupational health and safety: Injuries, lost days, diseases and fatalities**							
	Employee work-related fatalities[22,24]	√	1	0	1	0	0	1
	Incident rate[23]	√	0.01	0.00	0.00	0.00	0.00	0.00
	Employee business travel fatalities[22, 25]	√	0	1	1	1	0	0
	Incident rate[23]	√	0.00	0.00	0.00	0.00	0.00	0.00
	Contractor work-related fatalities[24]	√	1	3	2	5	2	2
	Contractor business travel fatalities[22, 25]	√	0	0	0	2	0	0
	Members of the public fatalities[22]	√	0	0	0	0	1	0
	Employee total recordable incident number[24, 26]	√	744	830	1,049	1,140	1,310	1,500
	Injury rate[23]	√	0.47	0.58	0.73	0.79	0.87	0.99
	Contractor total recordable incident number[24,26]	√	149	203	205	277	343	333
	Injury rate[23]	√	0.46	0.58	0.52	0.70	0.80	0.78
	Employee lost time incident number[24]	√	372	386	472	441	531	652
	Injury rate[23]	√	0.23	0.27	0.33	0.30	0.36	0.43
	Contractor lost time incident number[24]	√	96	97	95	118	163	200
	Injury rate[23]	√	0.29	0.28	0.24	0.30	0.38	0.47
	Employee lost days due to industrial incidents[29]		6,757	6,650	7,331	6,905	7,831	8,415
	Days lost rate[23]		4.26	4.63	5.11	4.78	5.26	5.52
	Employee occupational health illness[24]	√	16	30	35	65	46	17
	Employee occupational health illness rate[23,24]	√	0.01	0.02	0.02	0.05	0.03	0.01
	Sustainability Observation Tours (SOT) conducted[28]	√	83,859	144,738	182,265	178,473	139,124	–
	SOT rate[28,30]	√	5.52	1.01	1.27	1.24	0.92	–
	Hazards reported[24]	√	336,747	389,733	585,627	621,849	520,942	–
	Hazards reporting rate[27]	√	2.12	2.72	4.08	4.31	3.51	–
	Data by region							
	Employee work-related fatalities: ABB Group[22,24]	√	1	0	1	0	0	1
	Europe	√	0	0	0	0	0	0
	The Americas	√	1	0	1	0	0	0
	Asia, Middle East and Africa	√	0	0	0	0	0	1
	Employee business travel fatalities: ABB Group	√	0	1	1	1	0	0
	Europe	√	0	0	0	0	0	0
	The Americas	√	0	0	0	1	0	0
	Asia, Middle East and Africa	√	0	1	1	0	0	0

Social continued

GRI ref.	Indicator description	Data assured	2019	2018	2017	2016	2015	2014
	Contractor work-related fatalities: ABB Group	✓	1	3	2	5	2	2
	Europe	✓	1	0	0	0	0	0
	The Americas	✓	0	1	1	0	0	0
	Asia, Middle East and Africa	✓	0	2	1	5	2	2
	Contractor business travel fatalities: ABB Group	✓	0	0	0	2	0	0
	Europe	✓	0	0	0	0	0	0
	The Americas	✓	0	0	0	2	0	0
	Asia, Middle East and Africa	✓	0	0	0	0	0	0
	Employee total recordable injury rate: ABB Group	✓	0.47	0.58	0.73	0.79	0.88	0.10
	Europe	✓	0.53	0.66	0.86	0.96	1.02	1.16
	The Americas	✓	0.68	0.97	1.17	1.18	1.40	1.57
	Asia, Middle East and Africa	✓	0.16	0.19	0.24	0.27	0.31	0.39
	Contractor total recordable injury rate: ABB Group	✓	0.456	0.58	0.52	0.70	0.80	0.78
	Europe	✓	1.38	1.52	1.38	1.69	1.88	1.97
	The Americas	✓	0.42	0.74	0.96	1.47	1.54	1.40
	Asia, Middle East and Africa	✓	0.20	0.26	0.24	0.35	0.37	0.35
	Employee lost time injury rate: ABB Group	✓	0.23	0.27	0.33	0.30	0.36	0.43
	Europe	✓	0.37	0.39	0.48	0.47	0.56	0.66
	The Americas	✓	0.20	0.30	0.34	0.29	0.33	0.40
	Asia, Middle East and Africa	✓	0.07	0.07	0.09	0.08	0.08	0.12
	Contractor lost time injury rate: ABB Group	✓	0.29	0.28	0.24	0.30	0.38	0.47
	Europe	✓	1.15	0.91	0.73	0.93	1.03	1.38
	The Americas	✓	0.19	0.29	0.35	0.81	0.84	0.86
	Asia, Middle East and Africa	✓	0.07	0.08	0.10	0.07	0.12	0.15
	Employee days lost rate: ABB Group		4.26	4.63	5.11	4.78	5.26	5.52
	Europe		5.95	6.19	6.95	5.98	7.32	8.25
	The Americas		4.20	6.46	6.43	7.81	6.02	8.28
	Asia, Middle East and Africa		1.71	1.05	1.49	0.99	1.74	1.72
	Employee occupational health disease rate: ABB Group	✓	0.01	0.02	0.02	0.05	0.03	0.01
	Europe	✓	0.02	0.04	0.05	0.09	0.06	0.02
	The Americas	✓	0.01	0.00	0.00	0.02	0.02	0.03
	Asia, Middle East and Africa	✓	0.00	0.01	0.00	0.05	0.00	0.00

Social continued

GRI ref.	Indicator description	Data assured	2019	2018	2017	2016	2015	2014
	SOT rate: ABB Group	✓	5.52	1.01	1.27	1.24	0.92	–
	Europe	✓	5.34	0.92	0.84	0.76	0.51	–
	The Americas	✓	6.14	1.09	1.71	1.87	1.41	–
	Asia, Middle East and Africa	✓	5.40	1.10	1.61	1.53	1.17	–
	Hazard rate: ABB Group	✓	2.12	2.72	4.08	4.31	3.51	–
	Europe	✓	2.04	2.38	3.37	3.65	2.67	–
	The Americas	✓	1.61	2.66	4.81	4.78	4.25	–
	Asia, Middle East and Africa	✓	2.82	3.28	4.64	5.03	4.19	–
406-1	**Non-discrimination**							
	Total number of incidents of discrimination		8	0	0	0	0	1
	Total number of incidents of harassment		19	25	9	5	8	10
415-1	**Public policy**							
	Financial and in-kind political contributions		$1,260	$11,500	$300	$10,400	$12,600	$13,000
404-1	**Training and education**							
	Training per year per employee (average hours)							
	China		17	16	17	25	22	26
	Finland		12	13	13	15	17	19
	Germany		18	18	18	18	18	18
	India		10	12	5	3	2	12
	Italy		16	16	12	10	12	12
	Mexico		7	134	98	15	16	23
	Poland		10	35	20	12	10	11
	Sweden		12	12	12	10	10	12
	Switzerland		12	14	14	15	14	16
	USA		16	16	24	24	27	32
404-3	**Employees receiving regular performance and career development reviews[31]**							
	Top and senior managers		73%	89%	94%	92%	85%	87%
	Middle and lower managers		89%	93%	96%	94%	90%	91%
	Other employees		89%	91%	91%	91%	87%	88%
	Total workforce		**89%**	**91%**	**91%**	**92%**	**87%**	**88%**

Social continued

GRI ref.	Indicator description	Data assured	2019	2018	2017	2016	2015	2014
405-1	**Diversity and equal opportunity**							
	Composition of governance bodies							
	Board of Directors							
	Women in Board (percentage)		18%	18%	10%	18%	13%	13%
	Age group diversity (percentage)							
	<30 years old		0%	0%	0%	0%	0%	0%
	30–50 years old		9%	18%	0%	0%	0%	0%
	>50 years old		91%	91%	100%	100%	100%	100%
	Number of nationalities		7	7	8	10	8	7
	Executive Committee							
	Women in Executive Committee (percentage)		16%	9%	9%	9%	9%	9%
	Age group diversity total (percentage)							
	<30 years old		0%	0%	0%	0%	0%	0%
	30–50 years old		8%	0%	27%	18%	27%	36%
	>50 years old		92%	100%	73%	82%	73%	64%
	Number of nationalities		8	8	8	7	8	8
	Employees in senior and middle management[32]							
	Women in senior and middle management		18%	17%	16%	18%	17%	15%
	Men in senior and middle management		82%	83%	84%	82%	83%	85%
	Total workforce (ABB employees)							
	Women in total workforce		24%	23%	23%	23%	23%	22%
	Men in total workforce		76%	77%	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$_6$ 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 2019, we updated the factor used to convert SF$_6$ emissions to CO$_2$ equivalents to 23,500 kg CO$_2$e/kg SF$_6$, as recommended by the IPCC 2013 (Fifth Assessment Report), and we have applied that factor to SF$_6$ data reported for all years. SF$_6$ emissions for 2018 were restated from 155 kilotons to 164 kilotons due to a reporting error at a large manufacturing site.

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 emissions. Includes sales from Power Grids.

15 VOC emissions for 2018 were restated from 882 tons to 936 tons due to a reporting error at a large manufacturing site.

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

17 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.

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

19 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.

20 Includes GE Industrial Solutions acquired in 2018.

21 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 December 31, 2020. 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.

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

23 Incident rates are according to the rate per 100 employees.

24 Data covers incidents that happened at workplace (ABB facility, customer site, project site) and excludes incidents that occurred during business travel.

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

26 Recordable incidents include fatal, lost time incidents, serious injury incidents, medical treatment injuries, occupational diseases and restricted work day cases.

27 Rate is calculated per employee.

28 SOT conducted by manager in 2019, in previous years by employees. Sustainability Observation Tour in 2019 and Safety Observation Tour previously.

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

30 Rate per manager in 2019 and per employee previously.

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

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

33 Does not include GE Industrial Solutions acquired in 2018. Total GHG emissions including GE Industrial Solutions was 998 kilotons.

34 Calculated for the first time for 2019.

CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

ABB enables seven of the United Nations' Sustainable Development Goals

The following case studies illustrate just some of the many ways ABB is enabling the global community to meet many of the underlying SDG targets. To read more, visit the online version of this report at www.sustainabilityreport2019.abb.com

Clean water and sanitation
At the ABB Ability™ Collaborative Operations Center in Genoa, Italy, experts are on call 24/7 to provide water utilities with data-driven insights. These insights enable utilities to keep water stress levels as low as possible and to ensure their water facilities are operating in line with all relevant regulatory, load, environmental and cybersecurity requirements.

Affordable and clean energy
The Indian Institute of Technology Madras (IITM) partnered with ABB to develop and pilot a model solar-based village microgrid to generate and augment power availability and resiliency, as well as to conduct joint R&D in the fields of rural electrification, utilization of natural, non-fossil resources, battery energy storage and their connections to loads and the main grid. Thousands of Indian villages are still off the grid and rely on expensive diesel fuel for power; ABB's decentralized microgrids are a viable solution for these communities and can serve as the starting point for additional development activities in villages. This project is a part of ABB's "Access to Energy" community initiative in India.

Decent work and economic growth
ABB is donating software solutions and pulp and paper automation expertise to the Sappi Skills Centre, based in Umkomaas, South Africa, near Sappi's Saiccor Mill – the world's largest single site dedicated to dissolving wood pulp. The donation supports the Skills Centre, which was established by Sappi in 2018 to equip local youth with the basic technical skills needed to prepare them for meaningful employment.

Industry, innovation and infrastructure
ABB is piloting its new ABB Ability™ Data Center Automation solution with a leading colocation data center in Singapore. Designed to help meet the challenges related to the rapid growth of data centers, ABB's new solution makes it possible to view and monitor power, cooling and environmental metrics from data centers, thus enabling the identification of opportunities for improvement.

Sustainable cities and communities
Aiming to achieve the full electrification of its bus fleet by 2030, German public transport operator Hamburger Hochbahn AG has asked ABB to install a turnkey solution that will supply 44 of its high-power 150C chargers for the network. This will allow 44 buses in the fleet, each with a range of up to 150 km under normal conditions, to be charged overnight in the central bus depot.

Responsible consumption and production
ABB is supplying the new voestalpine BÖHLER Edelstahl steel plant in Kapfenberg, Austria, with its ABB ArcSave® electromagnetic stirrer technology. This technology, which will be installed on an energy-efficient 55-ton electric arc furnace, will reduce the environmental impact of the steel manufacturing process by reducing electricity usage, process additions such as alloys and lime and consumables such as electrodes.

Partnerships for the goals
ABB is a founding partner of United for Efficiency (U4E), a public-private multi-stakeholder collaboration partnership led by the United Nations Environment Programme. U4E helps governments develop and implement national and regional strategies for improved energy efficiency, and ABB is sharing its know-how in motors and transformers, policies, regulations and standards, as well as potential applications for the best available technologies.

CONTRIBUTION TO SUSTAINABLE DEVELOPMENT

ABB contributes to 10 of the United Nations' Sustainable Development Goals

The following case studies illustrate just some of the many ways ABB is enabling the global community to meet many of the underlying SDG targets. To read more, visit the online version of this report at www.sustainabilityreport2019.abb.com

No poverty
For more than 20 years, Instituto ABB, a project funded exclusively by our company, has been leveraging the power of education to transform the lives of children in the impoverished neighborhoods near our facilities in São Paulo, Brazil. The project is impactful, as Lucas Azevedo can attest. He was once an underprivileged youth participating in our "Mais Energia" two-year vocational program. Today, he is a proud ABB employee, thanks in part to the hands-on experience the program provided him at ABB facilities, together with technical courses at a renowned educational center located nearby.

Gender equality
Early in the academic careers of young girls, ABB in Switzerland raises their interest in technology by carrying out "Girls Technician Days" and by taking part in the annual national Future Day, which addresses pupils of both genders. In partnership with the Lila Poonawalla Foundation, ABB provides scholarships for talented but financially disadvantaged women to earn undergraduate engineering degrees. The program not only provides financial support, but also skills development training and mentoring to empower the women and build self-confidence and independence. ABB contributes financial resources, mentoring and industrial visits to ABB factories and locations.

Peace, justice and strong institutions
ABB has maintained a decade-long partnership with the International Committee of the Red Cross (ICRC) that was renewed for three years at the end of 2017. Regular exchanges between ABB and ICRC staff have helped identify focus areas to improve ICRC's energy efficiency. We will expand our exchanges to include human resources challenges related to leadership development and diversity and inclusion.

Zero hunger
The Akshaya Patra Foundation's new centralized kitchen in the Mohan Cooperative Industrial Area of New Delhi was inaugurated in 2019. Sponsored by ABB India, the kitchen has the capacity to cater to the nutritional needs of students by serving 25,000 midday meals across various government schools in the surrounding area. Initially it will serve over 21,000 children at 24 government schools in the national capital and will gradually extend its reach.

Good health and well-being
In October 2019, ABB opened its first global healthcare research hub on the Texas Medical Center (TMC) campus, in Houston, Texas. Together with its partners at TMC, ABB will work to develop cutting-edge robotics solutions that will reduce the number of manual procedures performed by medical staff, improve the accuracy of laboratory work and enhance patient satisfaction and ultimately patient safety.

Quality education
ABB started its first youth apprenticeship program in the United States in Fort Smith, Arkansas, in June 2019. In partnership with the University of Arkansas at Fort Smith and the local school district, ABB hosted nine local apprentices as part of its long-term effort to strengthen the area's pipeline of young talent. ABB is keen to continue to promote the benefits of the Swiss-style vocational system for the countries in which it works.

Climate action
The United States has begun its formal withdrawal from the Paris Agreement after stating its intention to do so in 2017. That is why, in December 2019, ABB's CEO Peter Voser added his voice to more than 70 CEOs in the US who came together to call for the country to remain within the landmark climate agreement.

Reduced inequality
Students from the Warsaw University of Technology, with support from ABB, engineered an electric racing car for a 10-year old boy who suffers from muscular dystrophy. This project demonstrated how e-mobility can help us create a more inclusive society. During the project, the students consulted with ABB on how to integrate components in a way that would make them compatible with the ABB Wallbox charger in the future.

Life on land
ABB and Sweden's Stena Recycling have forged a long-term partnership focused on the recycling of old electric motors. While outdated low-voltage motors are responsible for massive energy losses, they also contain large quantities of recyclable valuable metals. When recycled, aluminum, copper and iron deliver energy savings of between 75 and 95 percent, compared to new production of these metals. ABB and Stena will work together to take old motors out of service, recycle them and then replace them with advanced, high-efficiency motors.

Life below water
ABB won a contract from Arctic Offshore Farming to power its first-ever remote-controlled, submersible, offshore salmon farm in the Arctic Ocean. ABB will provide a comprehensive package of its leading electrical, automation, instrumentation and telecom technologies that ensure maximum efficiency and minimal environmental impact. The submerged fish pens are less prone to sea lice, which have been linked to a decline in salmon production in Norway – one of the top salmon exporters in the world.

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