

Approach to sustainability reporting

Reporting boundaries

We cover all ABB Group companies in our formal sustainability reporting system, including wholly owned subsidiaries and majority-owned joint ventures worldwide. In 2016, our environmental and social reporting did not cover SARPI – Société Algérienne pour la réalisation de projets industriels, Alger. A full list of direct and indirect subsidiaries is shown in our Annual Report 2016.

Changes in 2016

Entities acquired during 2015, including Striebel and John, CGM Group, gomtec GmbH and Viola Systems, are now integrated into ABB's sustainability reporting system.

Note that data for gas and electricity consumption and the associated greenhouse gas emissions (GHG) have been re-stated for 2012-2015, due to the correction of earlier conversion factor errors at one of our large facilities.

Data collection processes

We use two online data reporting systems to measure and collect performance data throughout the Group: one system collects monthly health and safety data inputs from all entities in every country, while the other system collects annual social data from every country and annual environmental data from every manufacturing and service site and the majority of office locations. During 2016, we implemented a new, cloud-based system to collect social and environmental data.

Data in this report relating to health and safety, and social performance covers substantially all ABB employees, whereas data relating to environmental performance was sourced from more than 580 ABB sites and offices, covering approximately 97 percent of employees. The environmental performance of the remaining employees, located in non-manufacturing entities without significant impacts, is covered by estimated data for energy, water and waste parameters.

The estimation factors used for 2016 are as follows:

	Unit	Factor
Electricity consumption	MWh/employee	2.9
District heat consumption	MWh/employee	1.3
Gas consumption	MWh/employee	0.6
Water purchased from utilities	tons/employee	13.8
General waste sent for disposal	tons/employee	0.09
General waste sent for recycling	tons/employee	0.05

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. Where those factors were not available, we have sourced factors from the IEA CO₂ Emissions from Fuel Combustion, 2013 or from national or regional inventories. Fuel emission factors are sourced from the GHG Protocol's Emission Factors from Cross Sector Tools (April 2014).

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

Scope 2 GHG emissions from electricity	kiloton CO _{2e}
Market-based	614
Location-based	656

GHG emissions from air travel are calculated using the emission factors published by the UK Department of Environment, Food and Rural Affairs (DEFRA in its "2016 Guidelines to DEFRA / DECC's GHG Conversion Factors for Company Reporting"). Data for 2012-2015 have been re-stated using these updated factors.

In 2015, we updated our methodology to account for GHG emissions and described these changes in the ABB Group [Sustainability Performance Report 2015](#). GHG data calculated using this method are available from 2013.

Assurance process

ABB believes in the importance of independent external assurance to enhance the credibility of our sustainability report. The independent assurance provider DNV GL has provided assurance of environmental and social performance indicators, as shown in the Summary of performance indicators table, and has reviewed key data and claims in the report and the data reported against our Sustainability Objectives 2014–2020. Their statement appears on page 64 of this report.

Global Reporting Initiative G4 application

ABB's sustainability performance reporting is guided by the Global Reporting Initiative's (GRI) G4 Guidelines. Accordingly, we use a materiality assessment to help us focus this report on those issues that are most important to our internal and external stakeholders. Omission from the material issues covered in our report does not mean that the issue is not managed by the company. The GRI content index for this report is available online.