## CLIMATE ACTION Committed to reducing emissions

ABB strongly supports international and national measures to mitigate climate change

After a concerted, multi-year effort, we are pleased to note that, in 2019, we achieved our climate action goals for 2020.

ABB supports the 2015 Paris Agreement and sees it as the linchpin of all efforts to limit global warming and allay the potentially devastating consequences of climate change. Within our own operations, we are working to reduce GHG emissions from fossil energy and transportation, as well as from the handling of sulfur hexafluoride gas (SF<sub>c</sub>).

Externally, ABB actively collaborates with businesses, governments and non-governmental and civil society organizations around the world to raise awareness of society's need to transition to low- or zero-carbon energy systems. We participate in the Sustainable Energy for All initiative, the World Economic Forum's Alliance of CEO Climate Leaders and the Science Based Targets (SBT) initiative, among many others. For the SBT initiative. ABB has committed to establishing a science-based GHG emissions target for our post-2020 sustainability objectives and is currently working to calculate what this target should be. As a company with around 9,000 technologists and plans to invest some \$23 billion in innovation between the date of the Paris Agreement and 2030, our advanced technologies represent ABB's main contribution to the global effort to mitigate climate change. Nearly 60 percent of ABB's global revenues are

derived from technologies that directly address the causes of climate change by facilitating increased energy efficiency, the integration of renewables into the energy mix and the conservation of natural resources. Importantly, these technologies can enable circular economy principles and practices.

ABB's current target for climate action is to reduce our GHG emissions by 40 percent by the end of 2020 from a 2013 baseline. In 2019, ABB's total GHG emissions (Scope 1 and 2) amounted to 998 kilotons, representing an 8.7 percent reduction from 2018 and a 41 percent reduction from 2013.<sup>1</sup> Our progress to date is attributable in part to an improved methodology for monitoring emissions from our vehicle fleet. On its own, this new methodology accounted for 19 percentage points of the GHG emissions reduction we reported in 2017.

During 2019, we expanded our assessment of Scope 3 emissions to more completely understand the climate impact of ABB's supply chain. The results obtained indicate that our upstream Scope 3 emissions are roughly six times as large as our Scope 1 and Scope 2 emissions. Thanks to this assessment, we will be able to have more meaningful conversations with our suppliers on the topic of climate action.

## Total GHG emissions (Scope 1 and 2) and GHG intensity



- GHG emissions intensity (Scope 1+2)
- New sites 2019
- Electricity consumption (Scope 2)
- District heat consumption (Scope 2)
- CO<sub>2</sub> from own fleet (Scope 1)
- SF6 (Scope 1)
- Energy (Scope 1)

<sup>1</sup> Total GHG emissions from all ABB sites was 998 kilotons; total GHG emissions for all ABB sites except for the 39 new sites added in 2019, for which no 2013 baseline data exists, was 915 kilotons. The latter number is used in the evaluation of progress.

In several European countries, all of our electricity is supplied from renewable sources. In 2019, 348 GWh, or 21 percent of all electricity used by ABB, was purchased as certified "green" electricity, an increase of 6 percentage points over 2018.

Importantly, the measures we took last year to strengthen the ability of our businesses to track their resource efficiency are starting to pay dividends. In 2019, for example, our Motion business started on its journey toward using 100 percent green electricity; Motion has already assured that 38 percent of its electricity use is green. This effort alone has cut ABB's GHG emissions by 63 kilotons and contributed to reducing Motion's GHG emissions by 49 percent from our 2013 baseline. The results delivered by Motion's program enabled us to hit our 2020 emissions reduction target. We continue to install on-site photovoltaic power plants at our facilities, which resulted in ABB's production of solar power for its own use increasing by 47 percent in 2019.

At present, more than 250 energy efficiency projects underway at ABB sites around the world are projected to deliver more than 39 GWh of annual savings.

At ABB's Busch-Jaeger site in Lüdenscheid, Germany, we are proving that the energy transition can be sustainably achieved via digital energy management. ABB's first carbon-neutral and energy-self-sufficient production site in the world, the Busch-Jaeger facility features a solar power plant that will deliver around 1100 MWh of climate-neutral solar power a year. Its installed ABB technology, which includes ABB's scalable energy management system OPTIMAX<sup>®</sup> at its core, will generate enough power to cover 100 percent of the factory's power requirements on sunny days and reduce the site's CO<sub>2</sub> emissions by 630 tons per year. For context, the average citizen of an industrialized nation generates about 10 tons of CO, per year.

Also in 2019, ABB Real Estate's energy savings program reported a total of US\$8.7 million annual savings from 260 completed, ongoing and planned energy-saving projects in ABB buildings, cutting

our greenhouse gas emissions by 23 kilotons per year. In addition, ABB Real Estate launched the global initiative "EV charging infrastructure at ABB sites" in cooperation with the Global Solutions Team for e-Mobility. A goal for 2020 is to increase the number of ABB sites equipped with EVcharging infrastructure from 17 to 35 percent.

Case study All-electric delivery fleet



Let's write the future of e-mobility. E-truck Let's write the future of e-mobility. AR Zerc Pioneering technology for smart and clean mobility ABB