

Case study

Novartis



Internal price on carbon:
\$100 USD/metric ton
 Energy efficiency & renewable energy
 Emissions reductions



GICS SECTOR Health Care
ANNUAL REVENUE US \$49,414,000,000¹

Emissions reduction target ²	Absolute target—by 2020, 30% reduction and by 2030, 50% reduction of Scope 1 and 2 emissions from 2010 baseline.	
Reported emissions (2015)	Scope 1	533,736 metric tons CO ₂ e
	Scope 2 (location-based)	1,085,252 metric tons CO ₂ e
	Scope 2 (market-based)	829,375 metric tons CO ₂ e
Baseline emissions (2010)	Scope 1	617,909 metric tons CO ₂ e
	Scope 2 (location-based)	1,062,041 metric tons CO ₂ e
	Scope 2 (market-based)	962,836 metric tons CO ₂ e

Novartis reports that climate change could result in increased prices for key inputs such as water and energy, and extreme weather events could significantly impact supply chains or damage facilities. They are also at risk of increasing costs linked to the carbon emissions associated with their manufacturing facilities. Recognizing this, Novartis discloses that it has decided to embed climate change into its corporate strategy and has set itself the targets of reducing combined Scope 1 and Scope 2 GHG emissions by 30% by 2020, and 50% by 2030 from its 2010 baseline. These targets have been set “based on the belief that governmental schemes can only be successful if private sector companies actively contribute with targets for their own global operations and products.”

Novartis is included in the EU ETS with several production sites located in EU member states. The company notes that so far this has not driven up operating costs and Novartis has been able to sell surplus allowances thanks to the successful energy efficiency programs implemented at these sites. Yet they highlight that this is likely to change as the system undergoes reform and as other countries follow suit.

The company discloses that they “support the true cost of carbon being embedded within the economy,” whether through carbon taxes or cap and trade schemes, as a tool “that will be effective in mitigating climate change.” For this reason and to help achieve their climate goals, Novartis decided in 2015 to set an internal carbon price of

\$100 USD/metric ton of CO₂e. They report that they based the amount on the World Bank’s ‘cost of climate change to society’ calculations.

Using its carbon price—similar prices were evaluated for other environmental impacts—Novartis quantified its entire environmental footprint in monetary terms, when participating in a pilot application of the recently launched Natural Capital Protocol. Through this exercise, Novartis was able to estimate its global environmental Profit and Loss for its own operations and for its material supply chain.

Novartis notes that they believe setting an internal price on carbon will help identify projects that can cost-effectively reduce GHG emissions, and will drive investments into areas such as energy efficiency and using renewable energy sources to power their operations. The Real Estate and Facilities Services teams will prioritize projects that will help Novartis meet its 2020 GHG emissions reduction targets, and the projects will be approved by top management. Currently, Novartis is investigating projects that could help reduce GHG emissions by up to 185,000 metric tons CO₂e. A major off-site wind and several on-site solar power purchase agreement options are part of this evaluation. The company notes that an internal price on carbon is helping Novartis identify projects that reduce GHG emissions, and generate a return on investment. ▼

¹ All annual revenue in USD, 2016 disclosure year. Retrieved September 15, 2016 from Bloomberg terminal.

² Companies may have other emissions reduction targets in addition to those listed in these studies.