Installation of a solar farm
at the Rionegro production site in Colombia

This project covers the installation of photovoltaic panels at a Groupe SEB production site in Colombia. They provide part of the electricity consumed by the site.

Starting date of the project	This installation has been in operation since October 2020, after two years of study.
Project Localisation Places of implementation of the project at this stage and targeted geography if replicable.	This ground-based solar farm is located on a vacant land of the production site located in Rionegro, Colombia. The solar energy produced is consumed at 100% by the production site, up to 11% of the site's electricity needs. **Reproducibility:** This project will serve as a pilot that can be generalised and extended in the future to other Groupe SEB sites (China, Vietnam, France, USA, etc.).
Project objectives Type of climate innovation of the project with a description of the problem/issue addressed	**Produce a portion (11%) of the electricity consumed by the Rionegro production site in Colombia from solar panels installed on the site.**
Detailed project description	Groupe SEB contributes to the fight against climate change by making commitments to reduce greenhouse gas emissions. In 2016, the Group joined the Science Based Target initiative (SBT), to align its low carbon approach with the goal of keeping global warming below 2°C by the end of the century. Groupe SEB has set the objective of reducing its emissions per product manufactured by 40% (base year 2016). To achieve these ambitious goals, it is concentrating its efforts on two priorities: • Optimize the energy consumption of its plants, • Increase in the share of renewable energy. This is where this project comes in: the first project of green electricity «on-site» purchasing of Groupe SEB. It will serve as a pilot that can be generalised and extended in the future to other sites (China, Vietnam, France, USA, etc.). **More than purchasing energy, this project made it possible to install a photovoltaic power plant on a vacant land of a site. The solar electricity produced supplies a portion of the site. In addition, this project is concrete for employees and helps raise awareness of climate issues as well as shows the commitment of Groupe SEB on this issue.** On the Rionegro site, there are many lands available and Groupe SEB wanted to exploit these lands to install photovoltaic panels to generate a part of the electrical needs. Greenyellow, a green energy supplier for more than ten years in France and all around the world, is responsible for the installation and maintenance. The photovoltaic plant has a 1,400-kW capacity and covers a surface area of around 14,000 m2. It will supply 11% of the site's electrical needs. The rest of the electricity needed comes from the Colombian electricity network. This installation has been in operation since October 2020, after two years of study. Groupe SEB hosts the photovoltaic power plant and has committed for twenty years to Greenyellow to buy solar electricity cheaper than the market price. This allows a saving of €48,000 and 11,000 tonnes of CO2 equivalent during the entire period of the contract. When the contract ends, Groupe SEB will become the owner of the solar power plant.
Main project's drivers for reducing the greenhouse gas emissions	

Reduction levers	Details on the aspects of the project
☐ Energy and resource efficiency (including behaviour)	
☒ Energy Decarbonisation	Replacement of part of the electricity provided by the Colombian electrical network with solar power.
☐ Energy efficiency improvements	
☐ Improving efficiency in non-energy resources	

	☐ Emissions absorption: creation of carbon sinks, negative emissions (BECCS, CCU/S, ...)
	☐ Financing low-carbon producers or disinvestment from carbon assets
	☐ Reduction of other greenhouse gases emission

Emission scope(s) on which the project has a significant impact and quantification of GHG emission reductions per emission scope

	Aspects of the project contributing to the reduction of emissions by emission category	Quantification of associated GHG emissions by emission category Please follow the quantification methodology used in the Afep guidelines.
Reduction of the company's carbon dependency		
Scope 1 *Direct emissions generated by the company's activity.*		
Scope 2 *Indirect emissions associated with the company's electricity and heat consumption.*	Replacement of part of the electricity provided by the Colombian electrical network with solar power	11 ktCO2e
Scope 3 *Emissions induced (upstream or downstream) by the company's activities, products and/or services in its value chain.*		
Increase of carbon sinks		
Emissions Absorption *Carbon sinks creation, (BECCS, CCU/S, …)*		
GHG emissions avoided by the company at third parties		
Avoided Emissions *Emissions avoided by the activities, products and/or services in charge of the project, or by the financing of emission reduction projects.*		

Clarification on the calculation or other remarks:

In Colombia, the average grid emission factor is 0.38 tCO2/MWh (electricity emission factor defined by the UPME Mining Energy Planning Unit of Colombia according to resolution 774 of 2018).
It is estimated that 11% of the site's electrical needs (30 GWh) will be supplied by this installation for the entire duration of the contract (20 years).
The associated CO2 gain is around 11 ktCO2e throughout the contract period (20 years).

Modality of verification of the quantification.	**Calculation standard used (ADEME base, GHG protocol, etc.):** Certificate supplied by Greenyellow **Verification of the calculation (internal or external):** External audit
Other environmental and social benefits of the project	More than purchasing green electricity, this project involves the establishment of a new photovoltaic power plant that generates employment for its installation and maintenance. It also provides a portion of the electricity consumed by the plant with clean energy, thus reducing its environmental impact for the surrounding populations. This project is concrete for employees because it is close to the workplace. This raises awareness about climate issues and is a source of great motivation for all Groupe SEB employees.
Project maturity level	☐ Prototype laboratory test (TRL 7) ☐ Real life testing (TRL 7-8) ☐ Pre-commercial prototype (TRL 9) ☐ Small-scale implementation ☒ Medium to large scale implementation **Remarks**: This installation has been in operation since October 2020.
Capacity and conditions of the project reproducibility, with associated climate impact mitigation potential	The reproducibility conditions depend on the site's solar resources, its vacant surface area for the installation of the plant, and its electricity consumption profile. The solar market and government support vary from country to country and are constantly evolving.

	An expert in the solar field is necessary. The expertise should include government incentives, insurance requirements and operational assumptions. The contract must protect the company in all areas of risk, considering all potential circumstances.
Amount of investment made (in €)	No investment: the cost is covered by the installer Greenyellow.
Economic profitability of the project (ROI)	☐ ST (0-3 years) ☐ MT (4-10 years) ☒ LT (> 10 years) **Remarks:** Groupe SEB has committed for twenty years to Greenyellow to purchase electricity from the photovoltaic plant, allowing Greenyellow to finance the plant.
Engaged partnerships	A partnership was established with GREENYELLOW Energía of Colombia.
Open comments from the project owner	/
More about the project	
Contact the company carrying the project	sustainabledevelopment@groupeseb.com
Project URL links	/
Illustrations of the project